**ORIGINAL RESEARCH ARTICLE** **OPEN ACCESS**

# COMPARISON OF BALANCE ABILITY BETWEEN BASKETBALL AND FOOTBALL PLAYERS

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| ARTICLE INFO | ABSTRACT |
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| | Sports has a very prominent role in a modern society it is important to an individual, a group , a nation- indeed the world. The two types test balance which are in common use in physical education are test of static balance and test of dynamic balance static balance may be defined as that physical ability which enables an individual to hold a stationary position. Whether statically or dynamically, depends upon the function of the mechanisms in the semi-circular canals, the kinesthetic sensation in the muscles, tendons, and joints, visual perception while the body is in Motions, and the ability to coordinate these three sources of stimuli. Balance is an important ability which is used in our everyday activities, such as in walking and standing, as well as in most games and sports. To achieve the purpose of the study, twenty players from each game namely basketball and football players from college students from Alagappa University College of Physical education Karaikudi were randomly selected as subjects. The subject's age ranged from 18 to 25 years the players who participated inter collegiate tournaments were selected for this study. to measure the balance ability the standard test bass stick test was used. The collected data was calculated by 't' ratio. It was concluded that there was no significant difference between basketball and football in balance ability. |

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## INTRODUCTION

Sports has a very prominent role in a modern society it is important to an individual, a group , a nation- indeed the world. Determined the relationship between balance ability and sport injury risk has been established in many cases, but the relationship between balance ability and athletic performance is less clear. This review compares the balance ability of athletes from different sports, determines if there is a difference in balance ability of athletes at different levels of competition within the same sport, determines the relationship of balance ability with performance measures and examines the influence of balance training on sport performance or motor skills. Based on the available data from cross-sectional studies, gymnasts tended to have the best balance ability, followed by soccer players, swimmers, active control subjects and then basketball players. Hrysomallis.C (2011) Researcher examine the Star Excurion Balance Test (SEBT) is a unilateral balance task designed to evaluate dynamic postural control. The investigation explored the relationship between limb preference, strength, and performance on the SEBT in NCAA Division I female collegiate soccer athletes ( non soccer, n =11, Soccer, n = 12). Each participant completed maximal, concentric test efforts at a velocity of 90 degrees x s(1-) for supine ankle dorsiflexion (ADF) and plantar flexion (APF) and at 60 degrees x s(-1) for the seated leg extension (LE) and flexion (LF) and supine hip extension (HE) and flexion (HF). In addition, participants performed maximal SEBT reaches in the anterior, medial, and posterior direction. All testing was completed on both limbs. Theses results indicate that SEBT performance is similar for both limbs in both groups. The soccer group, however, reached significantly farther that the non soccer group, suggesting that the SEBT may be sensitive to training status and / or sport – related adaptations. The concentric strength results indicate that despite group differences in all strength tests, strength in general was not highly correlated to SEBT performance.

**Table. computation of 't' ratio for basketball and football players in balance abilit (bass stick test) (seconds)**

| Variable | Game | Mean | Standard Deviation | Mean Difference | 't' Ratio | 't' Value |
|---|---|---|---|---|---|---|
| Balance | Basketball | 13.02 | 1.02 | 0.31 | 0.86 | 21.145 |
| | Football | 12.78 | 1.38 | | | |

(*Significance at 0.05 levels, df= N-2, (40/2) 20 Players)

Thus, neuromuscular factors above and beyond strength may have accounted for the group difference in SEBT performance. The SEBT may be a useful tool for determining the relative effectives of an intervention designed to improve postural control. Thorpe, (2008) To Determined the balance control is presumed to be a fundamental constraint on the organization of skilled movement. The current experiment explored whether single- eight participates ranging widely in skill kicked a soccer ball with the right and left legs for maximum accuracy and velocity and performed single-leg balance on a force plate for 30s with the right and left legs.

Significant correlations between single leg balance and kicking accuracy, but not velocity, were found. Left leg balance was more highly correlated that right leg balance with right (dominant) leg kicking accuracy. However, the same pattern of relation was not seen between single leg balance and left (non – dominant) leg kicking accuracy. These findings provide preliminary support of the importance of balance ability in kicking performance. The importance of balance in the production of athletic skills is discussed and additional experimental paradigms are suggested that might further our knowledge in this area[3]. Chew- Bullock, (2012) Surprisingly, no studies were found that compared the balance ability of rifle shooters with other athletes. There were some sports, such as rifle shooting, soccer and golf, where elite athletes were found to have superior balance ability compared with their less proficient counterparts, but this was not found to be the case for alpine skiing, surfing and judo. Balance ability was shown to be significantly related to rifle shooting accuracy, archery shooting accuracy, ice hockey maximum skating speed and simulated luge start speed, but not for baseball pitching accuracy or snowboarding ranking points. Prospective studies have shown that the addition of a balance training component to the activities of recreationally active subjects or physical education students has resulted in improvements in vertical jump, agility, shuttle run and downhill slalom skiing.

A proposed mechanism for the enhancement in motor skills from balance training is an increase in the rate of force development. There are limited data on the influence of balance training on motor skills of elite athletes. When the effectiveness of balance training was compared with resistance training, it was found that resistance training produced superior performance results for jump height and sprint time. Balance ability was related to competition level for some sports, with the more proficient athletes displaying greater balance ability. There were significant relationships between balance ability and a number of performance measures. Evidence from prospective studies supports the notion that balance training can be a worthwhile adjunct to the usual training of non-elite athletes to enhance certain motor skills, but not in place of other conditioning such as resistance training. More research is required to determine the influence of balance training on the motor skills of elite athletes.

## MATERIALS AND METHODS

To achieve the purpose of the study, twenty players from each game namely basketball and football players from college students from Alagappa University College of Physical Education, Karaikudi were randomly selected as participants. The subject's age ranged from 18 to 25 years the players who participated in the inter- collegiate tournament on September 2015 were selected for this study. The base stick test was used to collect the data. The present study was undertaken to compare the balance variables among basketball, and Football players. The data were collected and treated statistically to find out 't' ratio and the test of analysis for the significance difference. The level of confidence set for the significance is 0.05 levels. The obtained results were analysed discussed in this chapter. Table indicates the mean value of basketball and foot ball players, which are 13.02 and 12.78 respectively. The obtained value 0.86 and the table value is 2.145 at 0.05 level of confidence. Since the obtained 't' value is lower than the table value it is concluded that there was no significant difference between the basketball and Football players in balance ability.

## RESULT AND DISCUSSION

The finding of the study indicates that college men basketball players and men foot ball players shown no significant difference in balance ability. Hence it was concluded that there was no significant difference between men basketball players and men Football players in balance ability. Both game need high balance ability to completed the skill because both are body contact game.

## DISCUSSION ON HYPOTHESIS

It was hypothesized that there would be significant difference in balance ability between basketball players and Football players. The result of the study shows there would be no significant difference between basketball and football players in balance ability hence the hypotheses was rejected.

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