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Agility status among selected national level male Football, Basketball and Hockey players

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Abstract
The main purpose of the present study was to compare the agility (zigzag run) among selected national level male football, basketball and hockey players. To achieve the objective of the study, sixty (N=60) national level male players (twenty for each game) from Chandigarh were selected as subjects by using purposive sampling technique. The age of the subjects ranged between 19-25 years. To assess agility of the subjects, 16" x 10" zigzag run was used. To find out the significance differences among the selected national level male football, basketball and hockey players, one way ANOVA was used with the help of SPSS software. Further Scheffe's post- hoc test was applied to see the direction and significance of differences where 'F' ratio was found significant. The level of significance was set at .05. Significant difference was obtained on agility among national level male football, basketball and hockey players. Football players demonstrated significantly better than basketball players and hockey players on agility.

Keywords: Agility, Football, Hockey, Basketball

1. Introduction
Agility plays an important role in physical activity and it is revealed to great extent in sports and games involving efficient and quick changes in body position such as Basketball, Badminton, Volleyball, Tennis and Table Tennis etc. The requirement of above mentioned motor skills are largely depends upon high level of motor fitness among individuals *(Barrow and McGee, 1979)* [6]. McCloy and Young (1954) have reported two types of agility: one that involves running and one that does not. Running agility is measured with running tests that requires the subject to turn or start and stop. Such tests appear in most published general motor ability and motor fitness batteries running speed tends to be related to agility *(Baumgartner and Jackson, 1995)* [6].
Agility is the ability to change direction quickly and control body movements. *(Hockey, 1973)* Agility is important in all activities and sports. Individual and team sports involve quick starts and stops, rapid change of direction, efficient footwork and quick adjustments of the body or body parts. Individuals with good agility have a better chance of success in a physical activity then individuals with poor agility. Heredity is a major factor in an individual's level of agility, but agility also depends on strength, speed, coordination, and dynamic balance. Many individuals are able to improve through direct instruction, training and practice of agility drills *(Miller, 2006).*

2. Objective of the study
The objective of the study was to compare the agility among selected national level male football, basketball and hockey players.

3. Method and Procedure
For the purpose of the study, sixty (N=60) national level male players (football=20, basketball=20 and hockey=20) from Chandigarh were selected as subjects by using purposive sampling technique. The age of the subjects ranged between 19-25 years. To assess agility of the subjects, 16" x 10" zigzag run was used. To find out the significance difference among national level male players on agility, Analysis of Variance (ANOVA) was applied with the help of SPSS software. Further Scheffe's post post-hoc test was used to see the direction and significances of differences where 'F' ratio was found significant. For testing hypothesis, the level of significance was set at 0.05.

4. Result and Discussion

Table 1: Descriptive analysis of selected different three games on agility (Zigzag Run)

Groups	N	Mean	Std. Deviation	Std. Error
Football	20	22.1160	1.41492	.31639
Basketball	20	24.0965	1.61724	.36163
Hockey	20	23.1625	.80058	.17902

The comparison of agility (zigzag run) among selected national level male football, basketball and hockey players is presented in table 2.

Table 2: comparison of agility (zigzag run) among selected national level male football, basketball and hockey players

Sources of Variations	Sum of Squares	df	Mean Square	F	Sig
Between the Groups	39.266	2	19.633	11.201	.000
Within Groups	99.910	57	1.753		
Total	139.176	59			

*Significant at .05 level
$F_{.05}(2, 57) = 3.15$

Table 2 clearly indicates that there was significant difference found among selected national level male football, basketball

and hockey players since the F obtained at .05 level was 11.201 whereas, the value needed to be significant was 3.15 for 2 and 57 degree of freedom at .05. Since the ANOVA was found significant, the Schefee's Post-hoc test was applied to find out which of the difference of the means amongst the group were statistically significant. The data related to this are presented in table-3.

Table 3: significant differences between the paired means of agility (zigzag run) among football, basketball and hockey players

Groups			Mean Difference (MD)	Sig.
Football	Basketball	Hockey		
22.1160	24.0965		1.98050*	.000
22.1160		23.1625	1.04650*	.015
	24.0965	23.1625	.93400*	.030

Table 3 clearly indicates that the significant differences existed between football & basketball players, football & hockey players and basketball & hockey players on agility (zigzag run) since the value obtained were 1.9850, 1.04650 and .93400 respectively. Mean scores among selected national level male football, basketball and hockey players on agility is graphically depicted in figure-1.

Fig 1: Graphical Representation of Mean Scores of Agility (Zigzag Run) among Selected National Level Male Football, Basketball and Hockey Players

5. Discussion of Findings

The finding of the study showed that there was significant difference obtained on agility among national level male football, basketball and hockey players. Football players demonstrated significantly better than hockey players and basketball players on agility. The probable reason could be that the game of football is very fast and aggressive in nature in comparison to Hockey and Basketball. Therefore, the game of football requires a high level of agility, this is because the sport demands and requires quick starting movements, sudden stopping, quick jumping for heading and all these can be made if a football player possesses strong level of agility. Agility is important in the game of football because the ability to stop, start and change directions quickly and unexpectedly gives players a greater chance of escaping the opposition and completing plays.

6. Conclusions

In the light of the findings and limitations of the present study the following conclusions were drawn:

- A significant difference was observed on agility (zigzag run) among selected national level male football, basketball and hockey players.
- Football players performed significantly better than hockey and basketball players on agility.

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