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## A comparative study of physical fitness between athletes of team and individual games and sport

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### Abstract

A team sport includes any sport which involves two or more players working together towards a shared objective. Individual sport involves only one player where he/she works individually towards achieving a goal.

For the present study the researcher collected 40 players from team and individual games, age ranging between 20 to 25 years belonging to Sikkim. The sample consisted of players of team and individual games and sport who were currently playing at any national level tournament from Sikkim; therefore Purposive sampling technique was employed. To find out the statistical significant of physical fitness of team and individual games players, researcher applied independent 't' test. The calculated t value of physical fitness from the obtained data is less than the tabulated t value. The result explains that in case of physical fitness there is no significance difference in comparison between team and individual games players.

**Keywords:** individual sport, team games, physical fitness

### Introduction

A team sport includes any sport which involves players working together towards a shared objective. A team sport is an activity in which a group of individuals, on the same team, work together to accomplish an ultimate goal which is usually to win. This can be done in a number of ways such as outscoring the opposing team. Team members set goals, make decisions, communicate, manage conflict, and solve problems in a supportive, trusting atmosphere in order to accomplish their objectives. This can be seen in sports such as hockey, football, American football, association football, basketball, volleyball, tennis, water polo, lacrosse, rowing, rugby league, rugby union, cricket, handball and many others. Every team sport is different. Some team sports are practiced between opposing teams, where the players interact directly and simultaneously between them to achieve an objective.

An individual sport is a sport in which participants compete as individuals. However, team competitions in individual sports also occur, such as relay race, the Davis Cup and the Fed Cup.

Physical fitness is basically required in any games and sports whether it is individual sport or team games. Therefore this study was done to compare the physical fitness between players of individual sport and team sports.

### Methods

For this study 40 male sports person were selected, 20 from team games and 20 from individual games, age ranged between 20 to 25 years belonging to Sikkim. The sample consisted of athletes of team and individual games who participated in any national level tournament therefore purposive sampling technique was employed. For testing physical fitness, AAPHER Youth physical fitness test was applied. The following test batteries were used:

- i. Pull-ups
- ii. Bend knee sit-up
- iii. Shuttle Run
- iv. Standing Broad Jump (SBJ)

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- v. 50 Yard Dash.
- vi. 600 Yard or 9 Minute Run/Walk

1. Pull-ups - Muscular strength and muscular endurance of arm and shoulders.
2. Bent knee sit ups- Muscular strength and endurance trunk.
3. Shuttle run 10 X 4 yards- Speed & agility.
4. Standing broad jump- Explosive leg strength.
5. 50 yard dash- Speed of lower extremities and explosive strength.
6. 600 yard run walk or 9 min. run walk- Cardio vascular endurance.

**Analysis of Data, Conclusion and Discussion**

To find out the significant difference on the variable of physical fitness among athletes of team game and individual

game independent “t” test was employed. The data pertaining to this is presented in Table-1 & Table-2. Group Statistics

**Table 1.** Physical fitness athletes of Individual games

Players	N	Mean	Std. Deviation	Std Error Mean
Ph. Fitness (Team)	20	32.6500	5.40248	1.20803
(Individual)	20	32.9000	3.64042	.81402

The above table shows, the Physical fitness of the athletes of Individual games mean value is ±32.9000, std is 3.64042 and Std. Error mean as.±81402, whereas athletes of team games mean value is 32.6500, std is 5.40248 and std. Error mean 1.20803.

**Table 2:** Physical Fitness and Levene's Test for Equality of Variances

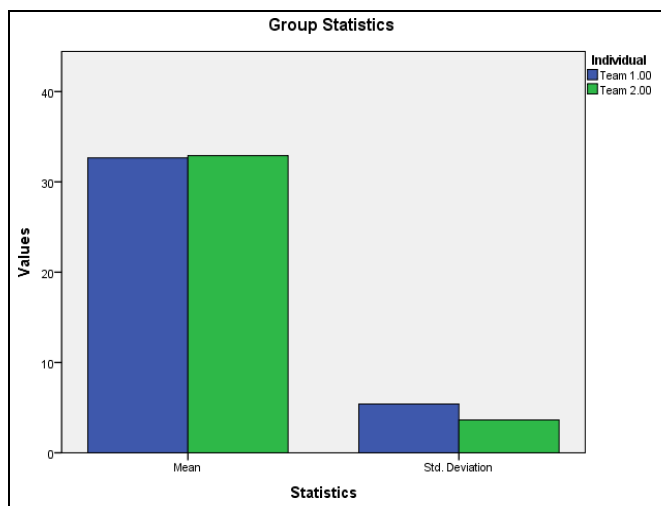
Physical Fitness		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Team	Equal variances Assumed	.748	.393	172	38	.865	25000	1.45670	319893	2.69893
	Equal variances not Assumed	.738	.389	172	33.305	.865	25000	1.45670	321265	2.71265

The above table shows that the calculate “t” (.172). In table-2 significance of mean difference between individual and team games players on physical fitness of ability shows, that both the Mean difference between individual and team players is. 25000.It can be concluded that there is no significant difference found the physical fitness between team and individual games players.

have the same result in the physical fitness Test Ability.

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**Graph 1:** graphical representation physical fitness ability

The graphical representation of mean and Standard Deviation difference between 20 team and 20 individual games athletes on physical fitness ability is presented in the graph.

**Conclusion**

The calculated t value of physical fitness from the obtained data is less than the tabulated t value. The result explains that in case of physical fitness there was no significance difference in comparison between team and individual games players. From the gathered data and the statistical calculation, it can be concluded that the players of team games and individual sport