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Analysis on explosive power among male and female of team and individual sports

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Abstract

The purpose of this study was to find out the analysis on explosive power among male and female of team and individual sports. To achieve the purpose of the study sixty male and sixty female players who has participated in various sports and games in Tamil Nadu and Pondicherry state inter physical education tournament held at Department of Physical Education and Sports Sciences, Annamalai University, Chidambaram, Tamil Nadu, India, were selected as subjects. The age of the subjects ranged from 18 to 25 years and all the subjects were healthy and normal. One hundred and twenty (N=120) subjects were selected from two kind of population (Male N=60) and (Female N=60) further both male and female subject were selected from the two areas (Team sports= 30 and Individual sports =30 respectively) of various sports and games. The collected data analysed by descriptive statistics and two-way analysis of variance were applied to find out the significant difference on explosive power among male and female of team and individual sports players.

Keywords: Explosive power, men and women

Introduction

Strength in knee extension is critical to jumping. Swift reaction with high frequency and high vertical jump ensures strong explosive force and absolute force (Pu *et al.*, 1989) [3]. Physical exercise can be a planned, structured movement of the body designed to enhance physical fitness. Regimented or purposeful exercise consists of a program that includes twenty to sixty minutes of activity at least three to five days a week. Physical fitness is a very familiar but rather vague term. In the broad sense, it means the ability of individuals to perform his usual activities with vigour without getting tired and also have enough energy to need unforeseen emergencies.

Youth sports used to mean children playing in the backyard, on the playground, or in loosely organized leagues. Now concepts such as privatization, skilled performance, and adult-controlled games characterize youth sports.

Methodology

Subjects and Variables

The purpose of this study was to find out the analysis on explosive power among male and female of team and individual sports. To achieve the purpose of the study sixty male and sixty female players who has participated in various sports and games in Tamil Nadu and Pondicherry state inter physical education tournament held at Department of Physical Education and Sports Sciences, Annamalai University, Chidambaram, Tamil Nadu, India, were selected as subjects. The age of the subjects ranged from 18 to 25 years and all the subjects were healthy and normal. One hundred and twenty (N=120) subjects were selected from two kind of population (Male N=60) and (Female N=60) further both male and female subject were selected from the two areas (Team sports= 30 and Individual sports =30 respectively) of various sports and games. The explosive power was assessed by the vertical jump test. The collected data analysed by descriptive statistics and two-way analysis of variance were applied to find out the significant difference on explosive power performance among male and female of team and individual sports players.

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Results

Table 1: Descriptive Statistics on Explosive Power among Male and Female of Team and Individual Sports

Variables	Male				Female			
	Team Sports (N=30)		Individual Sports (N=30)		Team Sports (N=30)		Individual Sports (N=30)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Speed	42.23	2.51	47.01	3.04	31.30	1.05	33.60	1.49

Table – 1 presents the mean and standard deviation value of male's team and individuals are 42.23 ± 2.51 and 47.01 ± 3.03 and female's team and individuals are 31.30 ± 1.05 and 33.60 ± 1.49 respectively on explosive power.

Figure – 1

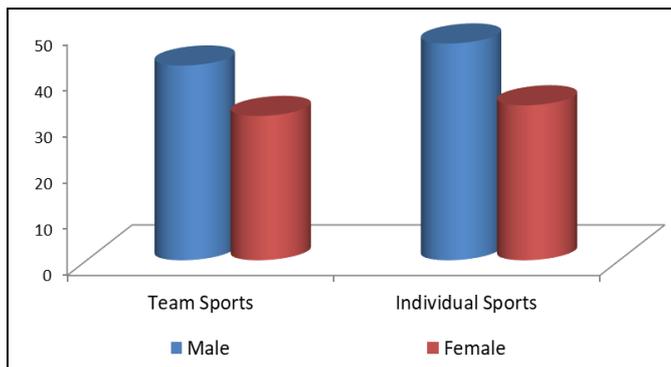


Fig 1: Cylinder diagram on explosive power among male and female of team and individual sports

Table 2: Two-Way Analysis of Variance on Explosive Power among Male and Female of Team and Individual Sports

Source of Variance	Sum of Squares	Df	Mean Squares	Obtained "F" ratio
Gender (Male & Female)	4440.83	1	4440.83	938.54*
Sports (Team & Individual)	374.53	1	374.53	79.15*
Interaction (Gender & Sports)	45.63	1	45.63	9.64*
Error	548.86	116	4.73	

(Table values required for significance at 0.05 level with df 1 and 116 is 3.92)

Table –2 shows that the obtained 'F' ratio value of 938.54 for gender is greater than the table value of 3.92 with df 1 and 116 required for significance at 0.05 level of confidence. The result of the study shows that significant difference exists among gender (male and female) irrespective of sports (team & individual) on explosive power.

The obtained 'F' value of 79.15 for sports is higher than the table value of 3.92 with df 1 and 116 required for significance at 0.05 level of confidence. The result of the study shows that there was significant difference exists among sports (team & individual) irrespective of gender (male & female) on explosive power.

Also the obtained 'F' value of 9.64 for interaction (gender and sports) is higher than the table value of 3.92 with df 1 and 116 required for significance at 0.05 level of confidence. The result of the study shows that significant difference exists in the interaction (gender & sports) on explosive power.

Discussion

The result of the study shows that significant difference exists between gender (male and female) on explosive power. The following studies results are supporting with my findings. Vishaw, *et al.*, (2011) [4] reported that there was significant difference observed between the individual game and team game athletes in selected physical fitness variables. Berk

(1997) [1] showed that boys are generally slightly more advanced than girls in regard to force and power. Das, *et al.*, (2007) [2] compared the physical fitness components of footballers and sprinters. Results revealed that there exist significant difference in flexed arm hang (arm & shoulder strength), bent knee sit-ups (muscular strength & endurance), shuttle run (coordinative ability), standing broad jump (explosive strength of legs), 600 yard run/walk (endurance) and sit and reach test (flexibility) of team and individual game players.

Conclusions

The conclusion of the study shows that significant difference exists between gender (male and female) on explosive power.

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