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Analysis of physical fitness variables of speed among athletes combative sports women

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Abstract

The purpose of the study was to find out the "Analysis of Physical Fitness Variables of Speed Combative sports Women". Eighty of Athletes and Combative sports Inter-Collegiate University Female players were selected as subject for this study the subjects were selected from Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women's Universities. The age level of the subjects ranged from 19 to 23 years. The Physical Fitness variables selected for this study was such as speed to measure 50 yards dash was conducted and rating cover time considered as variables. To compare the data of selected Physical Fitness, variables speed among the female players, one way analysis of the variance ANOVA was applied followed by Scheff's post-Hoc comparison to determine the significance of differences between paired means the level of significations chosen was at 0.05.

Keywords: physical fitness variables of speed combative sports women

Introduction

Physical Education is an education which brings improvement in human performance with the help of physical activities. Physical activities range from simple walking to jogging, running, sprinting, hopping, jumping, climbing, throwing, pushing, pulling, kicking, etc. Education without physical activities is like body without soul. There is no controversy in giving due place to physical education and different forms of exercises in the total set-up of education. All teachings in human education begin with physical education. Physical education is also considered as movement education as the life begins from movement only. In general life is characterized by movement. The movement starts from the birth of a child, till the end of life.

Mental, intellectual, emotional and social development of a growing child is dependent and closely related to physical development. A physically fit individual possesses a well-balanced personality which is, mentally sharp, emotionally stable and socially well-adjusted.

Physical education teaches how to acquire ability to develop strength, speed, and endurance and coordination abilities. It also emphasizes on achieving social qualities, such as, empathy, cooperation, friendliness, team spirit, and respect for rules, which are essential for healthy social relations with others. In this era of technological advancement, physical education and sports are considered essential for health, fitness, wellness, vigor and strength.

The concept of physical education is not new. The fact is that it has its roots in the ancient period. At various stages in history, different people have associated different meanings to the word 'Physical Education'. Physical Education in simple words is understood as learning with the help of movements of body and realizing the benefits at mental level. It simply means education through the use of physique and physical movements and deriving the advantage for social gain. First the way sports are organized and played may be a reflection of other institutions in a particular society. In this sense, the composition of an American football team is a reflection of the management structure of American Corporations, with a single leader. The quarter back (CEO), fitness players called running backs and receiver and defense. Second sport may be a symbolic expression of the use values of the culture such as achievement, individuality, teamwork and winning.

Importance of Physical Fitness

The importance of physical fitness cannot be emphasized enough. In today's society that is moving towards a more sedentary lifestyle, there is a greater need than ever to increase the

daily activity level to maintain both cardiovascular fitness and body weight. Stay active means keeping your body functioning at a high level. Regular exercise will maintain the performance of your lungs and heart to most efficiently burn off excess calories and keep your weight under control. Exercise will also improve muscle strength, increase joint flexibility and improve endurance. A main benefit of physical activity is that it decreases the risk of heart disease, the leading cause of death. Additionally, it can decrease your risk of stroke, colon cancer, diabetes and high blood pressure.

Statement of the Problem

The purpose of the study was to find out the “Analysis of Physical Fitness Variables of Speed among Athletes Combative sports Women”.

Objectives of the Study

- The study was aimed to compare the Physical Fitness Variables among the Athletes Players of various Universities of Karnataka.
- The study was aimed to compare the Physical Fitness Variables among the Combative sports Players of various Universities of Karnataka.

Delimitations of the study

- The Study was delimited to a total of 80 Female players in the game Athletes and Combative sports from different Universities.
- The study was delimited to the players of the inter-Collegiate level only.
- The study was further delimited to the players of Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women’s Universities.

Limitation of the Study

- The climatic conditions at the time of conducting the test influenced the performance of the Inter-Collegiate

Female subjects was considered as limitation.

Hypothesis

- It was hypothesis that there is significant difference in the Speed among Athletes and Combative sports Women players of various Universities.

Significance of the Study

- Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women’s Universities
- This study may facilitate to know the variations and similarities in Physical Fitness variables of Athletes and Combative sports of the players among the Universities and various sport disciplines.
- This study may help the coaches and Physical Education teachers to know about the fitness of the players in order to formulate appropriate training Programmed.

Methodology

The purpose of the study was to find out the “Analysis of Physical Fitness Variables of Speed Combative sports Women”. Eighty of Athletes and Combative sports Inter-Collegiate University Female players were selected as subject for this study the subjects were selected from Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women’s Universities. The age level of the subjects ranged from 19 to 23 years. The research scholar went through the scientific literature pertaining to the analysis of Physical Fitness, variables different sources and also consulted the experts in these areas. Along with the said literature and expert opinion, the administrative feasibility in terms of availability of instruments and expertise measuring and recording of data was also given due consideration while selecting Physical Fitness variables. Hence, the following variables were selected for this study.

Table 1: Physical fitness variables

Sl. No	Variables	Test items and Tools	Criterion Measurements
1	Speed	50-yard dash	Running distance covered by subject against time taken in Seconds.

Table 2: Comparison of speed mean values between athletes and combative sports women players among tumkur University, kuvvempu university, davangere university and karnataka state akkamahadevi women’s universities

Universities	Type	Mean	SD	Mean diff	SD diff	% of change	t -test	p-value
Tumkur University	Athletic	4.3870	.67330	0.465	-0.01507	10.5995	1.562	.136
	Combative	4.8520	.65823					
Kuvempu University	Athletic	4.2600	.79501	0.748	-0.47648	17.55869	2.76	.013*
	Combative	5.0080	.31853					
Davanagere University	Athletic	4.5710	.52773	0.2	0.10142	4.37541	.770	.456
	Combative	4.7710	.62915					
KSAW University	Athletic	4.7410	.04954	0.168	0.02983	3.543556	5.68	0.000*
	Combative	4.9090	.07937					

**Significant 0.05 level table value = 1.96

Represent the performances of speed mean score values and their significance mean difference of Athletes and Combative sports Women players of Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women’s Universities players.

The performances of speed mean score values and their SD of Athletes and Combative sports Women players of Tumkur University were 4.3870 ± 67330 and 4.8520 ± 65823 respectively. The calculated T- value is 1.562 which is not

significant at 0.05 level of significance. Hence the null hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes players is similar than the Combative sports players of Tumkur University.

The performances of speed mean score values and their SD of Athletes and Combative sports Women players of Kuvempu University were 4.2600 ± 79501 and 5.0080 ± 31853 respectively. The calculated T- value is 2.76 which is significant at 0.05 level of significance. Hence the null

hypothesis is rejected and alternative hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes

players is better than the Combative sports players of Kuvempu University.

Table 3: Comparison of speed mean values between athletes and combative sports women players among Tumkur University, Kuvempu University, Davangere university and Karnataka state Akkamahadevi women's universities

Universities	Type	Mean	SD	Mean diff	SD diff	%of change	t-test	p-value
Tumkur University	Athletic	4.3870	.67330	0.465	-0.01507	10.5995	1.562	.136
	Combative	4.8520	.65823					
Kuvempu University	Athletic	4.2600	.79501	0.748	-0.47648	17.55869	2.76	.013*
	Combative	5.0080	.31853					
Davanagere University	Athletic	4.5710	.52773	0.2	0.10142	4.37541	.770	.456
	Combative	4.7710	.62915					
KSAW University	Athletic	4.7410	.04954	0.168	0.02983	3.543556	5.68	0.000*
	Combative	4.9090	.07937					

**Significant 0.05 level table value = 1.96

Represent the performances of speed mean score values and their significance mean difference of Athletes and Combative sports Women players of Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women's Universities players.

The performances of speed mean score values and their SD of Athletes and Combative sports Women players of Tumkur University were 4.3870 ± 67330 and 4.8520 ± 65823 respectively. The calculated T- value is 1.562 which is not significant at 0.05 level of significance. Hence the null hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes players is similar than the Combative sports players of Tumkur University.

The performances of speed mean score values and their SD of Athletes and Combative sports Women players of Kuvempu University were 4.2600 ± 79501 and 5.0080 ± 31853 respectively. The calculated T- value is 2.76 which is significant at 0.05 level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes players is better than the Combative sports players of Kuvempu University.

The performances of speed mean score values and their SD of Athletes and Combative sports Women players of Davanagere University were 4.5710 ± 52773 and 4.7710 ± 62915 respectively. The calculated T- value is .770 which is not significant at 0.05 level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes players is found similar with Combative sports players of Davanagere University. The performances of speed mean score values and their SD of Athletes and Combative sports Women players of KSAW University were 4.7410 ± 04954 and 4.9090 ± 07937 respectively. The calculated T- value is 5.68 which is significant at 0.05 level of significance. Hence the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can conclude that the speed performance of Athletes players is better than the Combative sports players of KSAW University.

Among all the universities the speed performance of Athletes and Combative sports Women players of the Kuvempu University has better performance Average speed of Athletes and Combative sports Women players different Universities is graphically represented in figure

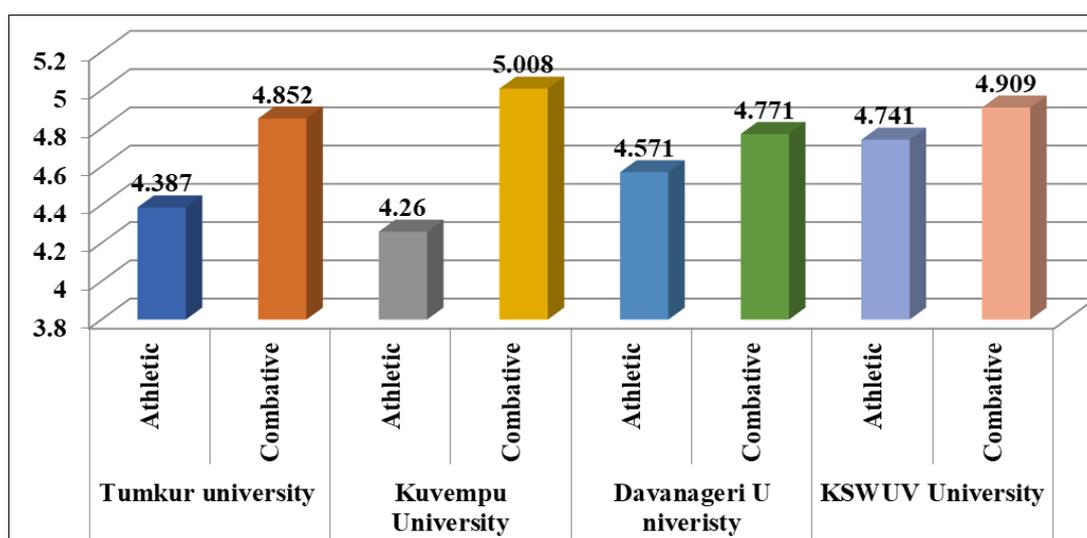


Fig 1: Comparison of speed mean scores of athletes and combative sports women players among Tumkur University, Kuvempu University, Davangere University and Karnataka state Akkamahadevi women's universities

The above figure indicates that speed performance mean scores a different the graphs showing of comparison of Athletes and Combative sports Women players with respect to speed mean speed scores of Athletes players of Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women's Universities are

4.3870, 4.2600, 4.5710 and 4.7410 While Combative players of Tumkur University, Kuvempu University, Davanagere University and Karnataka State Akkamahadevi Women's Universities are 4.8520, 5.0080, 4.7710 and 4.9090 respectively. It means that the speed performance of Athletes players is better than Combative players

The data pertaining to the speed among players and Combative players of Tumkur University, Kuvempu University, Davangere University and Karnataka State

Akkamahadevi Women's Universities were statistically analyzed and the result is presented in table No. 4.

Table 4: (Anova) on Tumkur university, Kuvvempu university, Davangere university and Karnataka state Akkamahadevi women's universities women players with respect to speed scores

Variable	Sources of Variation	Sum of squares	Degrees of freedom	Mean sum of squares	F-Value	p-value	sig
Speed	Between groups	5.135	3	1.712	6.771	.000	S
	Within the groups	19.213	76	.253			
	Total	24.348	79				

**Significant at 0.05 level table value 4.122

The significant difference was observed among the Universities with respect to speed performance of the players which is found to be significant ($F= 6.771, p < 0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that the different Universities have different performance of the speed.

Pair wise comparison of speed scores of Tumkur University, Kuvempu University, Davangere University and Karnataka State Akkamahadevi Women's Universities players by Scheff's multiple post-hoc tests and the result are presented in table No. 5.

Table 5: Pair wise comparison of speed scores of Tumkur University, Kuvvempu University, Davangere university and Karnataka state Akkamahadevi women's universities women players by scheffe's multiple post-hoc test procedure

Variable	Groups	Tumkur University	Kuvempu University	Davanagere University	KSAW University
Speed	Mean	4.6195	4.634	4.9315	4.825
	SD	0.69056	0.70334	0.47508	0.10758
	Tumkur University	-			
	Kuvempu University	P=0.262	-		
	Davanagere University	P=.0821	P=0.481	-	
	KSAW University	P=.135	P=0.000	P=.050	-

** Significant at 0.05 level

- A significant non difference was observed between Tumkur University and Kuvempu University players with respect to performance of speed scores at 5% level of significance. It means that the Tumkur University players and Kuvempu University have similar performance with respect to speed.
- A non-significant difference was observed between Tumkur University and Davanagere University players with respect to performance of speed scores at 5% level of significance. It means that the Tumkur University players have similar speed performance as with Davanagere University players.
- A non-significant difference was observed between Tumkur University and KSAW University players with respect to performance of speed scores at 5% level of significance. It means that the Tumkur University players have similar speed performance as with KSAW University players.

A non-significant difference was observed between Kuvempu University players and Davanagere University players with respect to performance of speed scores at 5% level of significance. It means that the Kuvempu University players have similar speed performance as with to Davanagere University players.

- A significant difference was observed between Kuvempu University and KSAW University players with respect to performance of speed scores at 5% level of significance. It means that the Kuvempu University players have better speed performance as compared to KSAW University players.
- A significant difference was observed between Davanagere University and KSAW University players with respect to performance of speed scores at 5% level of significance. It means that the KSAW University

players have better speed performance as compared to Davanagere University players.

Conclusions

Within the limitations of the present study, and on the basis of the findings, the following conclusions have been drawn; Athletes Players showed better performance in Speed, Endurance, Flexibility and Agility in comparison with Combative Players.

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