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COMPARISON OF FLEXIBILITY AND ANAEROBIC POWER BETWEEN COLLEGE MALE BASKETBALL AND HANDBALL PLAYERS

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Abstract:

The purpose of the study was to compare flexibility and anaerobic power between college male basketball and handball. To achieve this purpose 10 male basketball player and 10 male handball players from Department of Physical Education and Sports Sciences, Annamalai University in the age group of eighteen to twenty-two years were selected as subjects. The selected subjects were tested on flexibility and anaerobic power using sit and reach test and Margaria Kalamen power test. The collected data were statistically analysed by using 't' ratio. The findings of the study indicate that there were statistically significant difference between basketball and handball players on flexibility and are superior in both flexibility and anaerobic power.

Introduction:

Sports playa very prominent role in the modem society. It is important to an individual, a nation and indeed the world. There are for instance more nations competing in the Olympic games throughout the world. Sports have popular appeal among the people of all ages and both sexes. Much of attraction of sports comes from the wide verify of experiences and feeding that result from participation, success, failure, exhaustion pain, relief and feeling of belonging sports can bring money, glory, status and goodwill. However, sport can also bring tragedy, grief and even death. Sports have an undeniable role in the society. As society changes so does sports. Games in the early years were local and in formal. The rules are simple and changing according to the number of participating and the local.

Physical fitness is an historically preconditions level of health and comprehensive development of a person's physical abilities, corresponding to the requirements of labour activity in production, military duty and other spheres of public life and ensuring high activity, normal functioning of the body's vital system and longevity.

Flexibility is expressed by the range of movement in a given joint or combination of joints. It is influenced by three factors: (l) the bone and ligament structure of the joint (2) the amount of bulk surrounding the joint and (3) the extensibility of muscles whose tendons press the joint. The third factor is of greatest concern to those seeking to increase flexibility. Anaerobic means "without oxygen" thus in anaerobic exercise a large portion at the required energy is obtained from the anaerobic energy sources.

Anaerobic energy is required in high intensity short-term exercise involving power or speed. High-speed intense work of short duration required immediate energy that cannot be attained quickly enough from aerobic sources. In this situation another process termed anaerobic metabolism, is called on for a ready supply of energy. Thus, anaerobic energy is the output of energy when the oxygen supply is insufficient.

Methodology:

Selection of Subjects: The purpose of the study was to compare agility, flexibility, aerobic and anaerobic power between basketball and handball players. For this purpose twenty college male basketball and handball players from Department Of Physical Education and Sports Science, Annamalai University in the age group of eighteen to twenty-one years were selected.

Selection of Variables: In order to accomplish the purpose of the study, the following criterion variables were selected on Flexibility and Anaerobic Power.

Statistical Techniques: The study under investigation was intended to compare flexibility and anaerobic power between male basketball and handball players. The purpose of statistical analysis 't' test was used to compare the mean differences between the male basketball and handball players. The level of significance was fixed at 0.05 level to test the difference between the groups, and it is considered adequate for this study.

S.No	Variables	Method of Test
1	Flexibility	Sit and Reach Test
2	Anaerobic Power	Margaria Kalamen Power Test

Result of Study:

The analysis of' t' ratio for significant mean difference between basketball and handball players on flexibility has been presented in table. 1

Table 1: The Mean Standard Deviation and 't' Ratio on Flexibility of Basketball and Handball Players

Group	Mean	SD	DM	σ DM	't' Ratio
Basketball Players	14.8	3.45	3.30	0.889	3.712
Handball Players	18.1	5.24			

* Required table value for significance at 0.05 level of confidence for df of 18 is 2.101

The mean values of basketball and handball players were 14.8 and 18.1 respectively. The obtained 't' ratio of 3.712 on flexibility was greater than the required table value 2.101 for significance with df of 18 at .05 level of confidence. The results of the study showed that there was a significant difference existing between basketball and handball players on flexibility.

Table 2: The Mean Standard Deviation and 't' Ratio on Anaerobic Capacity of Basketball and Handball Players

Group	Mean	SO	OM	σ DM	't' ratio
Basketball Players	110.8	3.65	0.007	0.0038	2.484
Handball Players	115.2	5.51			

* Required table value for significance at 0.05 level of confidence for df of 18 is 2.101

The mean values of basketball and handball players were 110.8 and 115.2 respectively. The obtained 't' ratio of 2.484 on anaerobic capacity was greater than the required table value 2.1 0 1 for significance with df of 18 at .05 level of confidence. The results of the study showed that there was a significant difference existing between basketball and handball players on anaerobic capacity.

Conclusion:

Based on the results of the study, it was concluded that handball player are superior in both flexibility anaerobic power.

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