



“A COMPARATIVE ANALYSIS OF SELECTED PHYSICAL FITNESS AND PERFORMANCE VARIABLES AMONG UNIVERSITY AND SENIOR STATE MEN HOCKEY PLAYERS”

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ABSTRACT

The purpose of the present study aimed at examining the selected physical fitness variables of speed, agility and explosive power, and performance variables of sports competition dribbling, hitting and trapping among the inter university and senior state men hockey players . For achieving the result of the study sixty hockey players were selected in the ratio of 30 University and 30 State men Hockey Players. The each thirty subjects of university and senior state men Hockey players were equally selected from the Inter University Hockey Competition and the Senior National Hockey Championship. The selected variables were tested through standardized test of 30Mts Standing Start, 6X10mts shuttle run, standing broad jump, and the performance variables using the standard test of “W” form Dribbling, Hitting for Accuracy and trapping was tested through subjective rating. The collected data’s were statistically analyzed by using t-test. The significant level was fixed at 0.05.The result of the study proved that there were significant differences in selected variables between University and Senior State men Hockey players. Further it was proved that the senior state Hockey players were better in all the selected variables in comparison with University men Hockey players.

Key words: speed, agility, explosive power, dribbling, hitting and trapping.

INTRODUCTION

The modern man depends mostly upon the modern outfits, for his daily routine, involving mainly his mental powers to live an easy going life. There has been a fall and deterioration in his physical health and capacities. Modern man need not toil like his forefathers for his daily life. So he has become less vigorous and lethargic. Every individual should develop his strength and stamina for a happy and effective living. In order to get proper strength and stamina

one has to involve more in physical activities. Physical activity is essential for the development of wholesome personality of the child which would depend upon the opportunities provided for wholesome development of the mental, physical, social and spiritual aspects. Hence a well organized and properly administered training programme for the hockey players is very essential to improve their physical

and performance variables to perform better in the competitions.

Physical fitness is a vital one for the sports excellence. It is not possible to become top level sports person without having a well-planned preparation both in physical fitness development and performance variables execution during the competition. Sports play a predominant role in the man making process. Sports persons are experiencing in facing many challenges for reaching higher level performance. These challenges make them to acquire many physical fitness and perfection in the execution of the fundamental skill and it provides a key to success in any activity. In general physical fitness level of higher performer is higher in comparison with low performers. The fitness was commonly defined as the capacity to carry out the day's activities without undue fatigue. Physical fitness is considered a measure of the body's ability to function efficiently and effectively in work and leisure activities.

According to Charles A. Bucher and Williams E. Prentice, *Fitness for College and Life*, Fitness is a broad term denoting dynamic qualities that allow a person to satisfy his or her own needs as mental and emotional stability, social consciousness and adaptability, spiritual and moral figures and organic health consistence with person heredity. Fitness is that state which characterizes the degree to which a person is able to function efficiently. Fitness is an individual matter. It implies the ability of each person to live most effectively within his potentialities. Hockey is one of the fastest field sports being played on a rectangular play field. The game had a rapid growth and development and switched onto artificial surface nowadays. To play on such artificial surface requires greater amount of

speed agility, and power, neuromuscular coordination besides perfection of techniques or fundamental skills. There are number of fundamental skills in hockey namely hitting, dribbling, pushing, scooping, stopping, flicking, tackling, dodging and passing. The good performances of a hockey player depend upon the perfection and proficiency of fundamental skills.

METHODOLOGY

For achieving the result of the study sixty men Hockey players were selected in the ratio of 30 University and 30 senior state men hockey players from the South Zone Inter University Hockey Championship and Senior Nationals Hockey championship of the Southern State Men Hockey players. The each thirty subjects of University and Senior State were equally selected. The selected variables were tested through standardized test. The physical fitness variables of speed, agility and explosive power were tested through 30 Mts standing start, 6X 10m shuttle run and standing broad jump respectively. The performance variables were tested through the standardized test approved by the SAI. The performance variables dribbling was tested through "W" form dribbling test, Hitting was testes through accuracy test and the trapping test was conducted through subjective rating by using the five point rating scale. The mean, standard deviation and t- value was analyzed to find out the significant differences between university and senior state hockey players. The level of significance was fixed at .05 levels.

RESULTS AND DISCUSSIONS

The significance of difference of speed, agility and leg strength between University and Senior State men Hockey player were tabulated in the table I.

Table-I
Significance of Difference among Senior State and Inter University hockey players on Physical Fitness Variables

Variables	Players	N	Mean	SD	t-value
Speed	Senior State Hockey Players	30	4.28	0.81	4.9*
	University Hockey players	30	5.05	0.21	
Agility	Senior State Hockey Players	30	14.57	2.60	3.01*
	University Hockey players	30	16.07	0.78	
Leg Strength	Senior State Hockey Players	30	2.67	0.11	10.3*
	University Hockey players	30	2.37	0.11	

*Significant at 0.05 level of confidence with 58 df is 2.00

The Table-I indicates the mean, standard deviation and t- value on speed, agility and leg strength between the University Men Hockey Players and Senior State Men Hockey Players. The obtained t-values speed, agility and leg strength were 4.9, 3.01 and 10.3 respectively. All the t-values were higher than the table value of 2.00. It clearly states that there was a

significant speed, agility and leg strength between the University Men Hockey Players and Senior State Men Hockey Players. Further the mean values of senior State Men Hockey players were higher than the University Men hockey players and it indicates that they are superior in speed, agility and leg strength in comparison with University Men Hockey Players.

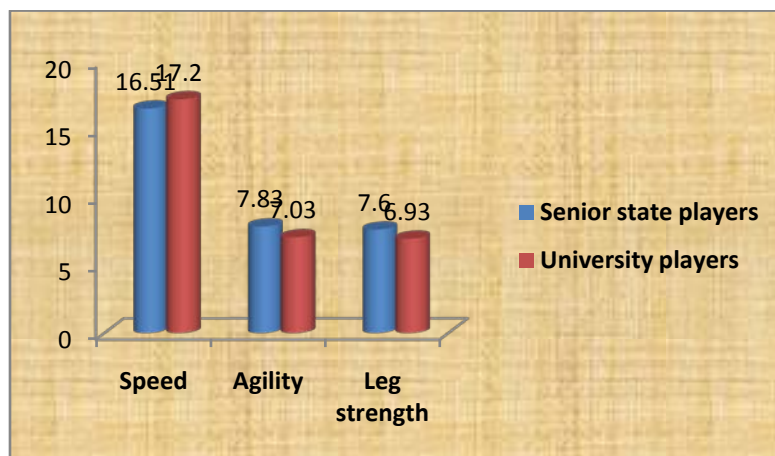


Figure-I Bar diagrams showing the mean values of Physical Fitness variables

The significance of difference of dribbling, hitting and trapping between University Men Hockey players and Senior State men Hockey player were tabulated in the table II.

Table-I
Significance of Difference among Senior State and Inter University hockey players on Performance Variables

Variables	players	N	Mean	SD	t-value
“W” Dribbling	Senior State Hockey Players	30	16.51	0.83	3.3*
	University Hockey players	30	17.20	0.77	
Hitting	Senior State Hockey Players	30	7.83	0.74	4.09*
	University Hockey players	30	7.03	0.76	
Trapping	Senior State Hockey Players	30	7.60	0.89	2.99*
	University Hockey players	30	6.93	0.82	

*Significant at 0.05 level of confidence with 58 df is 2.00

The Table-I indicates the mean, standard deviation and t- value on dribbling, hitting and trapping between the University Men Hockey Players and Senior State Men Hockey Players. The obtained t-values dribbling, Hitting and Trapping were 3.3, 4.09 and 2.99 respectively. All the t-values were higher than the table value of 2.00. It clearly states that there was a significant

difference in dribbling, hitting and trapping between the University Men Hockey Players and Senior State Men Hockey Players. Further the mean values of senior State Men Hockey players were higher than the University Men hockey players and it indicates that they are superior in dribbling, hitting and trapping in comparison with University Men Hockey Players.

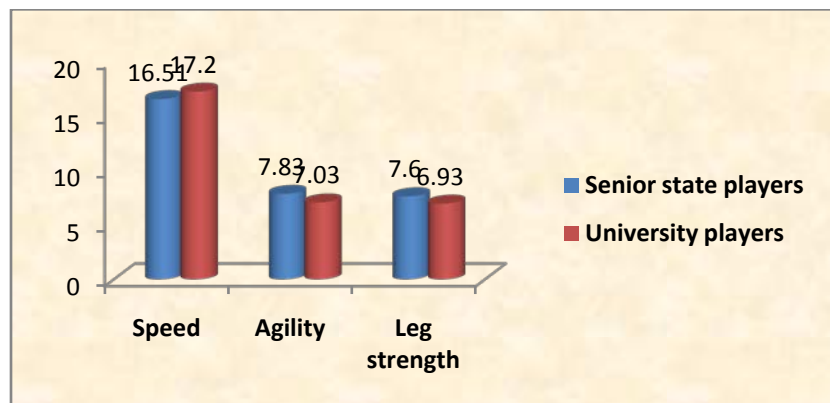


Figure-I Bar diagrams showing the mean values of Performance variables

CONCLUSIONS

From the analysis of the data the following conclusions were drawn

- ❖ The Senior State Men Hockey players were better in the physical Variables Speed, Agility and Leg Strength than the University Men Hockey Players.
- ❖ The Senior State Men Hockey players were better in the performance Variables dribbling, hitting and trapping than the University Men Hockey Players
- ❖ Further this study indicated that Senior State Men Hockey players were better in both the Physical and performance variables because of their experience in the game.
- ❖ The study also indicates that if the performance variables are better the physical fitness variables also better.

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