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### ASSESSMENT OF HAND GRIP STRENGTH BETWEEN NATIONAL LEVEL BASKETBALL AND NETBALL PLAYERS

*Mr. Rohit Kumar<sup>1</sup>, Dr Reeta Devi<sup>2</sup>, Mr. Sunil kumar<sup>3</sup>, Mr. Kuljit Singh<sup>4</sup>, Harpreet kaur<sup>5</sup>.*

Master of Sports Coaching (Basketball) Student<sup>1</sup>, (NSNIS) Punjabi University, Patiala

Assistant Professor<sup>2,3</sup>, Dept. of Physical Education, Lovely Professional University, Punjab

P.h.D. Scholar<sup>2</sup>, S.R.T.M. University, Nanded

P.h.D. Scholar<sup>5</sup>, Sri Guru Granth Sahib World University, Fatehgarh sahib, Punjab

**Mr. Rohit Kumar<sup>1</sup>, Dr Reeta Devi<sup>2</sup>, Mr. Sunil kumar<sup>3</sup>, Mr. Kuljit Singh<sup>4</sup>, Harpreet kaur<sup>5</sup>: Assessment Of Hand Grip Strength Between National Level Basketball And Netball Players-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6). ISSN 1567-214x**

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#### ABSTRACT

In this investigation university competitors, who used to participate in between National Basketball and Netball players was chosen as subjects to determine hand grip strength. the specialist chose thirty (50) players from Senior national The age gathering of the subjects was run from (18-30) a long time. To determine handgrip strength among Senior National Basketball and Netball player, a Dynamometer was utilized to assess the downturn, tension and worry of the subjects. The current examination, uncovers that Left hand grip and right hand grip strength were unprecedented among National level players where mean score (M= 47.15) with standard deviation (SD= 6.86) of Basketball players and of Netball players mean score (M=46.62) with standard deviation (SD= 5.81) in case of right grip strength were determined. There were no positive differences in the dominant and non-dominant hand grip strength of Basketball and Netball senior national level players.

#### Introduction

Generally lots of daily work or sporting activities need intensive as work from the muscles of for arm and hand. These are the important muscles that concern for gripping force and holding strength which are involved in

gripping strength. Games like basketball, cricket, tennis, baseball and netball. Required a balance amount of hand grip as well as force arm power to performed activities like carrying laundry, vacuuming and also in game situation like smashing and holding a racket etc. several measure of grip strength is which compulsory to be winning.

Hand grip strength is a reliable measurement when it is measured or calibrated with standard equipment and with a standard procedure. There are many variables that should keep in mind before testing hand grip strength such as time of the day, dynamometer adjustment and postures. According to many researches it was tested that there is a change occurs into grip strength as functions of the time of the day that grip performance increasing during a day and decreasing during a night. Grip strength play a vital role in a lot of time like strengthening of the hand grip has been a remedy for the rehabilitation of injury like as tennis elbow and golf.

Athlete go through lots of on a daily basis functions and sport activity which want the better participation level of all the muscles of hands and forearms. Therefore they also play a very important role in grip strength. on the other hand holding power plays a key job in injury Hand grip strength be the maximal control of strong voluntary flexion of every one of fingers underneath common bio kinetic situation. Were hand grip strength decide powerfully built power of an person. It is consider as a important method for physical fitness as well as health for calculating strength for hand grip is main key for catching throwing passing the ball in diverse group games prevention and taken as a whole power development.

### **Hypothesis**

It was hypothesized that there may not be a significant difference in between leading and non- leading hand grip strength in Senior National Basketball and Netball players.

### **Significance of the Study**

1. The study will be helpful in knowing hand grip of right hand and hand grip of left hand grip strength of senior national level Basketball and Netball players.
2. The result of the study will be helpful in improving hand grip of right hand and hand grip of left hand grip strength of senior national level Basketball and Netball players.
3. The result of the study will also be helpful in gaining the information which group performing better either the Basketball group or Netball group players.

4. The result of the study will be further helpful in identifying talent in the game of Basketball and Netball.
5. The findings of the study will provide a guideline to the future research investigators in sports sciences to conduct further research in this field.

### Selection of Subjects

Fifty male senior National levels Basketball and Netball players who had participated at 64<sup>th</sup> Senior National Basketball Championship held at Delhi and 31<sup>st</sup> National Netball Championship held at Patna were selected as subjects for the study employing purposive sampling design. The age of the subjects ranged above 18 years.

### Statistical Analysis of data

The data collected on the selected variable and the data was analyzed by applying "t" test to make the Comparison between the basketball right hand grip strength with the right hand grip strength of Netball national level players and vice versa. To test the hypothesis the level of significance was chosen at 0.05 level of confidence.

**Table no.1: Raw score of right hand grip strength of basketball and netball players.**

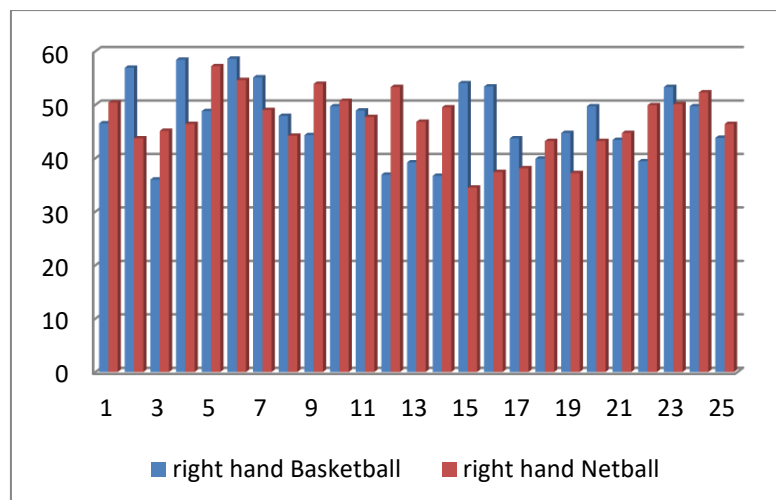
Game	N	Mean	S. D.	't'	df
Basketball	25	47.156	6.86	0.74	48
Netball	25	46.624	5.81		

\*tab - 2.015

Table no. 1 revealed that mean value and standard deviation of right hand grip strength of Basketball player is 47.156 and 6.86 respectively. The mean value and standard deviation of right hand grip strength of Netball player is 46.624 and 5.81 respectively. Calculated t value is 0.74 at 0.05.

The tabulated value of "t" was greater than the calculated t value is 0.74 which is less than the tabulated value 2.015 with df=48. This indicates that there is no note worthy distinction among right hand grip strength of Basketball and Netball players. Therefore hypothesis formulated for the

study that their wills no significant difference in right hand grip strength of Basketball and Netball players has been accepted.



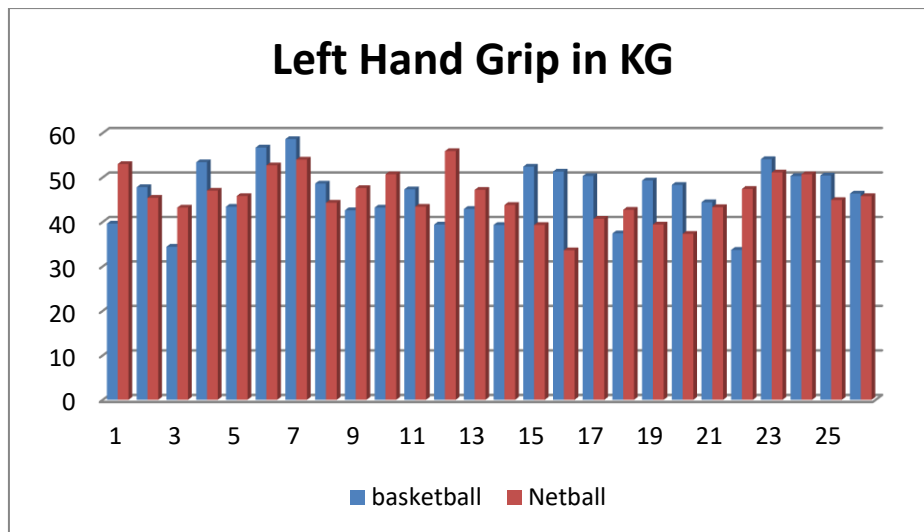
**Table no.2: Raw score of left hand grip strength of basketball and netball players.**

Game	N	Mean	S. D.	't'	df
Basketball	25	46.36	6.86	0.73	48
Netball	25	45.77	5.81		

\*tab -2.015

Table no. 2 reveals that the mean value of standard deviation of non dominant grip strength of senior national Basketball player is 46.36 and 6.86 respectively. The mean value and standard deviation of senior national Netball players is 45.77 and 5.81 respectively.

The tabulated value 2.015 is more than calculated t value which is 0.73 and with DF=48. The results clearly depicts that there is not considerable differences in the hand grip strength of Basketball and Netball players of senior national level. It has been accepted that there is not any vital difference between the left hand grip of basketball and the netball players. Therefore the hypothesis for the present study that there will be no significant difference in left hand grip of Basketball and Netball players has been accepted.



### Discussion of finding

Basketball and Netball are the two team sports of the Olympic Games. There is a need to have the high standards of physical endurance to take part in the 40 minutes and 60 minutes respectively of the play of high competition and to increase performance.

In Basketball and Netball the patterns of movement are categorized as irregular and continuous change in regards to playing in different settings. Here hand grip strength of players obviously influences the effectiveness of playing ability.

In the present study, no significant difference in right and left hand grip strength of senior national Basketball and Netball players was found. This is significant different are probably due to the reasons that Basketball and Netball players possess the same physical attributes required for the respective game.

### Discussion of hypothesis

On the basis of statistical analysis no significant difference was found between the hand grip strength of netball and basketball players. Thus the null hypothesis was accepted at 0.05 significance in right and left hand grip strength of senior national Basketball and Netball players .

Finding of shymal Koley, Satinderpal Kaur and Jaspal Singh Sandhu have also supported the result of the current study.

## Conclusion

On the basis of the result of the study and within this limitation the following conclusions were drawn:

There were no positive differences in the dominant and non-dominant hand grip strength of Basketball and Netball senior national level players.

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