

A Comparative Study on Anthropometric Measurement of State and National Level Shooters

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Introduction - The development of human resources is significantly aided by activities such as sports and physical education. When games and other activities that take place outside are organized and carried out in the correct manner, they contribute to the improvement of social harmony, as well as an increase in productivity. These activities help students cultivate positive attitudes and values within themselves, allowing them to mature into balanced, integrated, and healthy members of society. Every citizen possesses the inherent right to engage in recreational pursuits like sports and other types of physical activity.

Objective :

1. To Examine Leg Length of state and national level pistol shooters.
2. To Examine Hand Length of state and national level pistol shooters.

Hypothesis: The hypotheses for the present research work are as follows:

1. H_{01} : there will be no significant deference in Leg Length of state and national level pistol shooters.
2. H_{01} : there will be no significant deference in Hand Length of state and national level pistol shooters.

Definitions:

Leg Length : The meaning of "Leg Length" in this current inquiry refers to the distance from the called person's spinal column to the point where the leg portion touches the surface of the ground.

Hand Length : The significance of "Hand Length" in this current investigation to the third figure upper part of the Called person's figure all the way up to the starting point of the thumb is "Hand Length."

Review of Literature:

1. (Zatsiorsky & Aktov, 1990)uncovered in their research about biomechanics of highly precise actions, such as the targeting processes involved in air rifle shooting. There is still a lack of understanding regarding the particular mechanisms that contribute to the very great precision of human movement. A tactic called "fixation" is used by shooters when aiming at targets that don't move as they fire their weapons at them. A portion of the goal of reducing aiming

point fluctuation can be accomplished by correcting rifle movements relative to a number of degrees of freedom.

2. (Mondal et al., 2011)studied Findings from the Suva Anthropimthy & Physiological Profile of the Indian Shooter This investigation involved 50 rifle shooters from several clubs in the Hooghly region of West Bengal, India. The goal of this research is to replicate the original anthropometric and physiological measurements of competitive rifle shooters from the Indian state of West Bengal. Based on the results of a comparison study, it can be concluded that the maximum oxygen consumption (VO2 max) values of the shooters in the current study are lower than the international standards for VO2 max. Women shooters had significantly higher anaerobic power values compared to non-athletes, while men shooters have lower anaerobic power values compared to adult non-athlete boys in West Bengal.

Research Design: For this study players were selected who have participated in state level Rajasthan tournament and national level pistol shooting tournament.

Sample Deign

S. Pistol Shooters		
1.	National level pistol shooters	50
2.	State level pistol shooters	50
	Total	100

Selection of Tools:

Anthropometric			
1	Leg length	Measuring Tape	cm
2	Hand length	Measuring Tape	cm

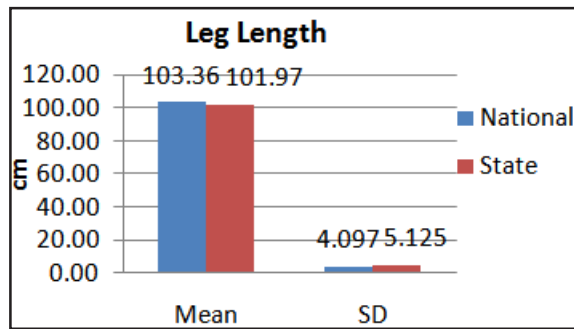
Analysis and Result:

Difference in leg length of National and state level pistol shooters

H0: There is no significant difference in leg length of National and state level pistol shooters

Table-1 (see in next page)

Figure-1:- Comparison of Mean Score of Leg Length in Pistol Shooters at National and State level



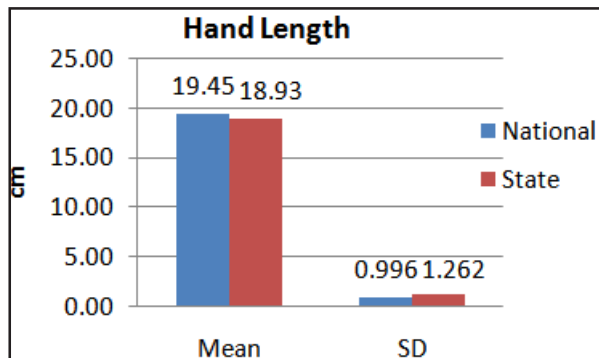
It is evident from table above that P value for leg length is found > 0.05. Thus, null hypothesis is accepted and it can be stated that there is no significant difference in leg length of National and state level pistol shooters.

Difference in hand length of National and state level pistol shooters

H0: There is no significant difference in hand length of National and state level pistol shooters

Table-2 (See in bottom)

Figure-2:- Comparison of Mean Score of Hand Length in Pistol Shooters at National and State level



It is evident from table above that P value for hand length is found < 0.05. Thus, null hypothesis is rejected and it can be stated that there is no significant difference in hand length of National and state level pistol shooters.

Hand length of national level players is found highest compared with state level pistol shooters (Mean, 45.58 cm).

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Table-1:- Comparison of Mean Score of Leg Length in Pistol Shooters at National and State level

Leg Length								
Level of Pistol Shooters		Mean	SD	Std. Error Mean	t	df	P value	Inference
Leg Length	National	103.36	4.097	0.579	1.498	98	0.137	NS
	State	101.97	5.125	0.725				

Table-2:- Comparison of Mean Score of Hand Length in Pistol Shooters at National and State level

Hand Length								
Level of Pistol Shooters		Mean	SD	Std. Error Mean	t	df	P value	Inference
Hand Length	National	19.45	0.996	0.141	2.287	98	0.024	S
	State	18.93	1.262	0.178				
