

A COMPARATIVE STUDY OF SITTING HEIGHT-STATURE INDEX BETWEEN GRECO-ROMAN AND FREESTYLE WRESTLERS

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ABSTRACT

The sitting height ratio is an essential criterion in the diagnosis of growth problems and excessive growth. For the purpose of evaluating the wrestlers' performance, the investigator compared the differences in body proportionality 'sitting height-stature index' between Greco roman and freestyle male wrestlers of 130 kg., and 125 kg. weight category. The researcher has selected ten top-ranked wrestlers of each weight category (Greco roman 130 kg and freestyle 125 kg) from the All India intervarsity championship 2020-21, that competition was organized at Ch. Bansilal University Bhiwani, Haryana on 7/03/2022 to 10/03/2022. We found that a significant difference is existing in the Greco-Roman and freestyle wrestler's mean Sitting Height-Stature Index of two (130 and 125 kg.) weight categories.

Key words- Body proportionality, Sitting height stature index, Greco roman ,Freestyle, wrestlers

INTRODUCTION

One of the few of these ancient combat disciplines that have received thorough study is wrestling. A particular style of wrestling was created long before the historical era, in the Stone Age. Prehistoric man had to get ready for both physical battles and contests of mastery. The most popular form of man-to-man combat at the time was wrestling, which was also essential to the bouts.

The sport of wrestling is a great way to prepare men for physical conflict. All young people benefit from this in the development of their psycho-physical skills, and participating in this delightful sport offers many benefits. It lacks a model for gaining physical efficiency, coordination, balance, and efficient bodily use, which makes it less useful as a mental tonic for the development of an aggressive attitude. After learning to pin an opponent's shoulder to the ground, a guy develops a winning attitude and realizes that he "can take care of himself" in any type of physical encounter. It is said that wrestling is the "Father of All Sports." One of the first sports for which we have a wealth of information in this one. Wrestling has been documented for about 4,000 years, and in ancient India and Egypt, it was extremely well-liked. Back then, it was quite possible and useful to maintain one's health, strength, flexibility, and many forms of control.

Sitting height (SHt) measurements and sitting height/height (SHt/Ht) ratio are important criteria in the diagnosis of growth problems and particularly in the diagnosis of disproportionate growth. It is known that body proportions are related to genetic influences and show variations among different populations. In clinical practice, sitting height measurements and sitting height/height ratios are important key findings in the diagnosis of growth disorders such as hypochondroplasia, achondroplasia, and Marfan's syndrome. Sitting height-stature index of wrestlers may be determining factor because wrestling is a combat sport that needs an essential equilibrium of body during the bout to conquer the opponent. Because the relationship between the upper body and total body height is important to maintain body balance and equilibrium. For this study, the investigator compares the differences in body proportionality 'sitting height-stature index' between Greco roman and freestyle male wrestlers of 130kg, and 125kg. weight category.

METHODOLOGY

Following Physical measurements were used to collect the relevant data as per the objectives of the study.

Selection of the Participants:

(i) Stature (Height, cm): the maximum distance from the point vertex on the head to the ground.

Measuring tool: stadiometer (anthropometric rod)

(ii) Sitting height (cm): The distance between the anthropometric rod and the highest point of the stool was measured.

Measuring tool: stadiometer (anthropometric rod)

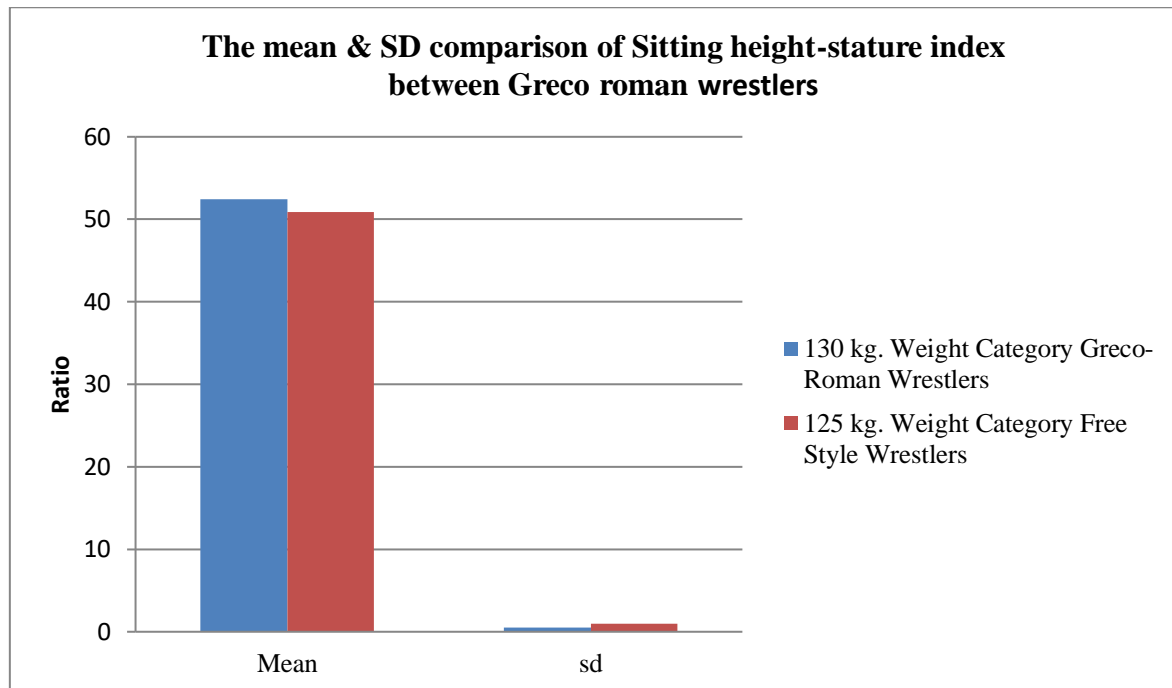
Selection of the Participants: For this study, the researcher has selected ten top-ranked wrestlers of each weight category (Greco roman 130 kg and freestyle 125 kg) from the All India intervarsity championship 2020-21, That competition was organized at Ch. Bansilal University Bhiwani, Haryana on 7/03/2022 to 10/03/2022.

STATISTICAL ANALYSIS, RESULT, AND DISCUSSION

The mean comparison of Sitting height-stature index between Greco roman 130 kg and freestyle 125 kg.weight Category men wrestlers.

Sitting height-stature index	N	df	Mean	sd	t-value
130 kg. Weight Category Greco-Roman Wrestlers	10	18	52.4	0.50	4.18
125 kg. Weight Category Free Style Wrestlers	10		50.9	1.00	

Since the calculated t-test value (4.18) is greater than the tabulated t-test value (2.10) so a significant difference exists at 0.05 level of significance between the means of Sitting height-stature index of Greco-roman 130 kg. Weight Category and freestyle 125 kg. Weight Category of men wrestlers.



Graphical representation: Bar Diagram comparison of the mean & standard deviation of Sitting height-stature index between Greco roman and freestyle male wrestlers.

We found that a significant difference is existing in the Greco-Roman and freestyle wrestler's mean Sitting Height-Stature Index of two (130 and 125 kg.) weight categories. Top-level performance demands a particular type of body size, shape, and proportion. Numerous researchers had observed a high-level relationship between Sitting Height-Stature Index and performance in specific tasks. Cureton (1941) stated that in general, people with long legs and long arms and relatively short and small trunks were physically weak in long sustained heavy work but they might show great speed and endurance at high levels of athletic activity, Long third-class levers are noted for speed and range of action as well as for their efficiency for force. Hirata (1996) suggested that a nation with people whose general physique is limited to the characteristics of champions in certain events must concentrate their sports training on those specific events. He also concluded that Japanese with small bodybuilds are best for gymnastics, long-distance running, boxing and weight lifting, etc., whereas the Americans who are large and lean are best for basketball, Volleyball, Swimming, long jump, short and middle-distance running. Singh & Sharma (2016) also suggested that middle-distance runners have long lower extremities and stature which is more helpful for achieving higher performance. Body proportionality of wrestlers may be different from Greco roman and freestyle according to their training history and playing techniques.

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