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A COMPARATIVE STUDY ON ARM STRENGTH AMONG THE JUDOKAS AND KURASH PLAYERS

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ABSTRACT

The main objective of this study was to find out if there any significant difference exists between the arm strength of Judokas and Kurash players. For this study, total 60 male players (30 from judo and 30 from Kurash) have age group between 18-25 years was selected from Uttar Pradesh, Haryana, Punjab, Kerala, Uttarakhand and Madhya Pradesh. Push up and Pull up were employed for the measurement of arm strength which was further analysed by using Roger's formula. For the statistical analysis t-test were used and level of significance was set to 0.05. The result depict that significant differences was found in the arm strength of judokas and kurash players.

KEYWORDS: *arm strength, Kurash, Judokas, Explosive strength, push up, pull up.*

INTRODUCTION :

JUDO: -Judo was developed from the Japanese martial art ju-jitsu at the turn of the twentieth century by Dr. Jigaro Kano. Judo literally means 'easy way' or 'way of gentleness' originated in Japan and its founder was late Dr. Jigaro Kano a distinguished educationist. It is a violent, aggressive combat sports and an invaluable method of self-defiance. One of the tremendous advantages of Judo is its versatility. It looks its inception in Japan, but now has world wide appeal and received Olympic recognition in 1964. Japan has remained the strong held of the sport with more than 8 million Participants, but the USA, Russia and France Lead the rest of the world, each having more than two hundred thousand registered participants. The terminologies however remain Japanese. In common with other art forms Judo demands a high level of technical skills to turn fast and with great accuracy to remain very sensitive to your partner's movements and to capitalize on his weakness requires constant practice and certainly a continuous practice it can be demoralizing to see how quickly the finely honed edge of a tap judokas becomes stunt with a few non active days (Soames & from. 19). Judo is a principle of life, art and science. In fact, is means for personal cultural attainment only one of the forms of Judo training.

KURASH:-Kurash is an ancient type of upright jacket grappling which originated in the territory of modern Uzbekistan. According to the latest scientific research the age of Kurash is at least three and a half thousand years. Kurash is one of the oldest martial arts the people had ever practiced. Kurash is an Uzbek word. It means – reaching the goal with the just or fair way. From the very beginning to till now Kurash was used as a martial art and the public physical entertainment during major holidays, feasts and wedding parties. Kurash is given in different historical sources.

The aim of studying arm strength is known about up to what extent strength dominates the physical activity and games. Strengthing activities promote endurance, speed, power and strength and agility to the players. The ability of the group of muscle or muscle to exert force is called strength.

Better performance often results from strength. Arm strength plays an important role in playing games, such as volley ball, hand ball, basketball, cricket and throwing events. In relation to the Judo and kurash arm strength is a key factor of win or lose.

MATERIALS AND METHODS

The present study is an innovative attempt to compare the arm strength of judokas and the arm strength of kurash players by employing the arm strength test which was further analysed by using Rogers Formula having the components i.e., Push Ups and Pull Ups. The subjects were selected randomly from the Uttar Pradesh, Haryana, Assam, Madhya Pradesh, Uttarakhand and Punjab to accomplish this purpose. Total of 30 judokas and 30 kurash players were selected randomly for the study. The players were selected form the Uttar Pradesh, Haryana, Assam, Madhya Pradesh, Uttarakhand and Punjab. Height in inches and weight in pounds of the players of both games were noted down respectively after that the arm strength of each subject was calculated using the Roger's formula as below.

S. No	Name of the subject	Number of the subjects
1	Judokas	30
2	Kurash Players	30

Arm strength test were employed which has two components

- Pull ups test
- Push ups test

Arm strength= (Pull-ups + Push ups)-w/10+(H-60)
Where:
W = Weight
H= Height

In this formula the value of "(height-60)" became negligible when the subject's height reaches beyond 60 inches.

For administering the test instructions were given to the subjects about the method of performing pull – ups and push – ups. The required time were given to the subjects for warmup just after the demonstration and explanation.

Pull- ups test: For the pull-ups test, a standard horizontal bar with a mat underneath for protection was used. The subjects were instructed to grasped the bar with his palms facing toward him. The subjects were asked to hang straight, and from that still hang position to pull himself up by flexing his arms until his body to the starting position with his arms fully extended. This movement was repeated as many times as possible. The maximum number of pull-ups done by each subject was recorded his score.

Push-up test: To perform push-ups test a gymnastic mat was used. The subject was instructed to lie down on his chest and keep his palms directly under the respective shoulder. Subjects was asked to push up his body until his elbows extended fully. From that position the subject was asked to bring his body down until the chest goes closer to the floor. Subjects was asked to repeat this movement continuously. The maximum number of push-ups done by each subject was recorded his score.

Weight: Standardized and good conditioned weighing machine was used to measure the weight of the subject. The subject was instructed to stand on the given area of the machine for weight measurement. The investigator recorded the weight in pound accurately.

Height: Stadiometer was used for the measurement of the height of subject. The subject was instructed to stand erect on stadiometer with straight arm by tightly placed against the body and the palms turned inward side and should held flat against thighs. A movable vertical bar was used so that it could be adjusted according to the height of the judokas and kurash players. The measurement was taken in inches.

Statistical analysis

T test were used for the comparison between the arm strength of judokas and Kurash players. The ratio was calculated and tested at 0.05 level of significance.

RESULTS AND DISCUSSION

This study was carried out to compare the arm strength of Judokas and Kurash players. For the achievement of this target, the data was collected by the random selection of the subjects and recorded under fair observation then collected data was treated statistically to find out the t-ratio, test of analysis for the significance of difference. The t-ratio of the analysis was significance at 00.05 levels of confidence. The obtained t-value and was compared with the 't'-value of the table. The obtained t-value of 6.55 is found significant at 0.05 level of confidence.

S. No	Name of the subjects	Mean	S.D.	d.f.	t- value	p- value
1.	Judokas	643	189.60	58	6.55	0.05
2.	Kurash Players	363	137.25			

Table 1

After the statistical analysis of the collected data significant difference was found and from the finding it can be concluded that the judokas have more arm strength as compared to the kurash players. This study fills the gap of knowledge that judo and kurash have almost same nature of movements even though arm strength of the players differs and judokas have better arm strength when compared with kurash players. So, it can be concluded from the result that judokas will perform better than kurash players whenever arm strength is involved in any movement.

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