



STUDY OF RANGE OF MOTION AT HIP JOINT IN THRUST KICK AMONG THE FEMALE KARATEKAS

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Abstract: The aim of the research study was to compare the Range of Motion (ROM) of Right and Left Leg at Hip Joint among the Female Karatekas of 12-14 years old Girls, by using Survey Method. There is lack of awareness among Karatekas, Physical Educators, Trainers and Coaches about ROM at Hip Joint among Female Karatekas, so researcher wanted to study on this problem and find out the results which may contribute in the field of Physical Education and Society. This research may help to enhance the performance and achieve the elite or desirable level in the Competition. Researcher used an Angle Chart with difference of 10° to measure ROM at Hip Joint. Two angle charts form a complete circle of 360° , each complete 180° , and Centre point at Hip Joint to measures proper movement. Mean, Standard Deviation and t-test are used for comparison between Right and Left Leg Kicks of Female Karatekas. From the statistical data interpretation, it can be stated that there is insignificant difference appeared in ROM of Right and Left Leg Thrust Kick. Hence, the Hypothesis was rejected.

Keywords: -ROM, Hip Joint, Kick, Karatekas.

Introduction:

Karate is a martial art developed in the Ryukyu Kingdom. It developed from the Indigenous Martial Art of Ryukyu Islands under the influence of Chinese Martial Arts, particularly Fujian white crane. Karate began a common fighting system known as te (Okinawa-ti) among the pechin class of the Ryukyuan. After trade relationship were established with the ming dynasty of China by King Satto of Chuzan in 1372, some forms of Chinese martial arts were introduced to the Ryukyu Islands by the visitors from China, particularly Fujian Province. A large group of Chinese families moved to Okinawa around 1392, for the purpose of cultural exchanges, where they established the community of Kumemura and shared their knowledge of a wide variety of Chinese arts and sciences, including the Chinese martial arts.

A Kick is a physical strike using the leg, foot, heel, tibia, thigh or knee (the latter is also known as a knee strike). Kicks play a significant role in many forms of martial arts, such as Savate, Taekwondo, Sikaran, Karate, Pankration, Kung Fu, Vovinam, Kickboxing, Muay Thai, Capoeira, Silat and Kalarippayattu.

Objectives:

- 1) To find out the Range of Motion in Thrust Kick among the Female Karatekas.
- 2) To compare the Range of Motion in right and left legs (Static Strength).
- 3) To suggest training methods for development of Range of Motion.

Hypothesis:

The Research scholar hypothesized that there will be significant difference in Range of motion in right and left leg at Hip Joint in thrust kick among Female Karatekas.

Delimitations:

- The study is delimited to karate only.
- The study is delimited to female karatekas.
- The study is delimited to age group of 12 to 14 years.
- The study is delimited to Range of Motion.
- The study is delimited to Marathwada Sanskrutik Mandal's Karate Club, Chhatrapati Sambhaji Nagar (Aurangabad).
- The study is further delimited to school going students.

Limitations:

- Diet and rest of the karatekas was a limitation.
- Involvement and response of the karatekas during test was a limitation.
- Physical, Mental, Weather, School, House and Surrounding conditions were a limitation.

The present research work had various limitations which were beyond the control of researcher and were considered as one of the major limitations of the study.

Methodology:

Population

The Population is female karatekas with definite age group ragging between 12 to 14 years of Marathwada Sanskrutik Mandal's Karate Club, Chhatrapati Sambhaji Nagar (Aurangabad City).

Sample

The Sample of this study is collected from Marathwada Sanskrutik Mandal's Karate Cub, Chhatrapati Sambhaji Nagar (Aurangabad City) through survey method regarding range of motion.

Variables

Independent Variables:

1. Test of Range of Motion at Hip Joint.

Interweaving Variables:

1. Sex :- Girls
2. Age :- 12 to 14 years
3. Criteria :- Karate

Dependent Variables:

1. Performance of Kicks of karatekas.

Collection of Data:

The data is collected from Marathwada Sanskrutik Mandal's Karate Club, Chhatrapati Sambhaji Nagar (Aurangabad City), through survey method regarding range of motion at hip joint in thrust kick of right and left leg among female karatekas of age 12 to 14 years. A standard motor ability test was used to collect the data.

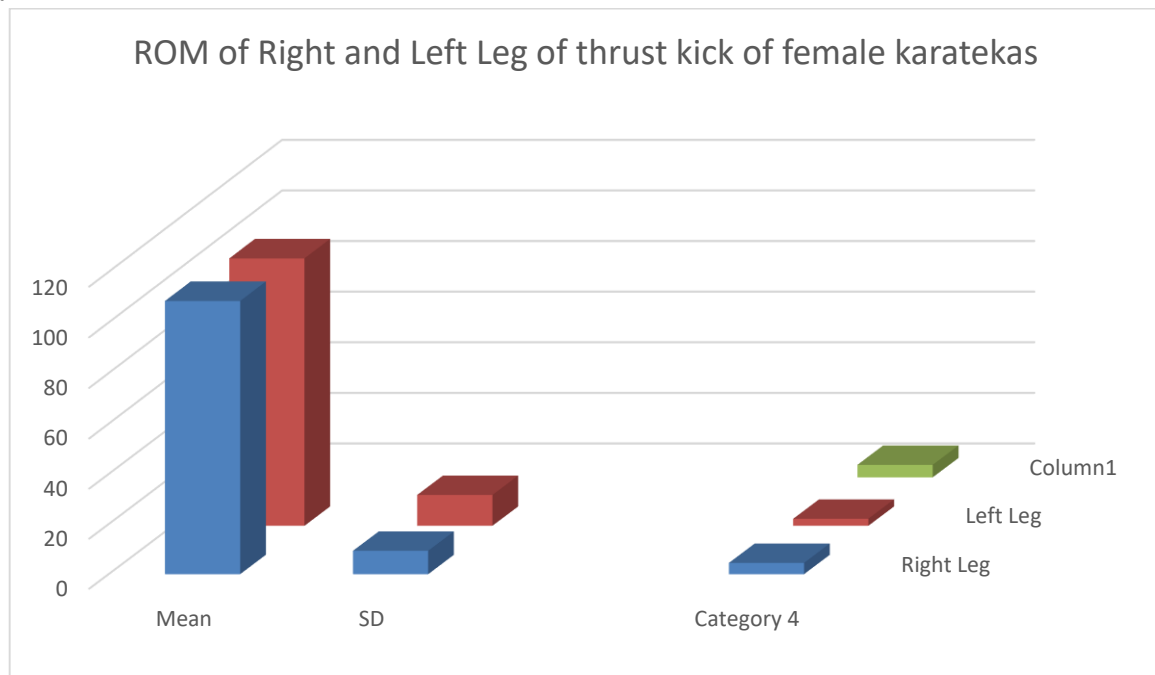
Table: 1: Mean and standard Deviation of performance of right and left leg Thrust Kick Girls.

Skill		Mean	S. D.	D. F.	T-test
Thrust Kick	Right	108.5	9.33	38	0.74
	Left	106	12.31		

ROM: Range of Motion

0.05 Level of Significance

Tabulated "t" (2.02)

Graph:

The mean of right leg thrust kick is 108.5 (SD 9.33) and mean of left leg thrust kick is 106 (SD 12.31). The calculated value of t-test is 0.74 and the table “t” value is 2.02 at 38 degrees of freedom and level of significance 0.05.

Conclusion:

On the basis of results obtained the present study concludes that difference between right and left leg Range of Motion at hip joint in thrust kick of Female Karatekas, practiced above 2 years and of 12 to 14 years age group is found insignificant.

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