

## **A Comparative Study of Physical Fitness of Judo Players during Transitional Period and Competition Period**

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### **Abstract**

**Background:** The purpose of the present study was to compare the physical fitness of the judo players during transitional period and competition period.

**Method:** To carry out this study 50 female judokas from Punjab were taken as subject. The age limit varied 18-25 years. Marine Corps physical fitness test was used to measure the physical fitness variables. The data were collected and analysed using the descriptive statistics and t test. The level of significant set at 0.5 .

**Results:** From the findings of the study it was evident that judo players have better physical fitness during transitional period as compared to competition period due to weight cutting during office season.

**Keywords:** Physical fitness variables, Judo, Off season , Competition Season

### **INTRODUCTION**

The world of games and sports is ever expanding with increasing intensity of competition and enlarging scientific studies of human movements. The sport is dynamic in nature and progressive in outlook. It is not confined to what has been, but it aim is to fix new targets of better glory for optimum attainment of the individual's capacity in various sporting activities

Physical education and sports provide a forum to learn skills such as discipline and leadership and also convey core principles that are important in a democracy, such as tolerance, solidarity, cooperation and respect. Access to and participation in sports and physical education provide an opportunity to experiences social and moral inclusion for individuals and populations otherwise marginalized by social, ethic, cultural or religious barriers, Through physical education and sports, individuals can experience equality, freedom and a dignifying means for empowerment particularly for women, for people with a disability, for those living in conflict areas and for people recovering from trauma.

The Ancient Olympic Games were largely composed of sports that tested skill related to combat, such as armoured foot races, boxing wrestling, pankration and chariot racing, amongst other, combat sports are first recorded during the Olympic games of 648 B.C. with pankration. Pankration allowed competitors to use all striking and grappling techniques. The only rules for this sport in its origin were no biting and no eye gouging. A winner was decided by submission, unconsciousness, or even death of an opponent. It is a common occurrence for matches to last for hours. Pankration grew in popularity during the Hellenic Period. Matches were in small square arenas to promote engagement. This tradition of combat sports was taken even further by the Romans with gladiators, who would fight with weapons, sometimes to the death.

Physical Fitness is to the human body what fine tuning is to an engine. It enables us to perform up to our potential, fitness can be describe as a condition that helps us for better look, pleasure feel and do our best more specifically it is that states which characterized that degree to which a person is able to function. Fitness is an individual matter. It implies the ability of each person to live most effectively with potential ability. Ability to function depends upon the physical, mental, emotional, social and spiritual components of fitness, all of which is related to each other and is mutely interdependent

Because in the combative sports, sports women reduces weight and fight in the lower weigh category to get benefits in the competition. This weight reduction may affect negatively on their performance. As with reducing weight she may lose few physiological benefits. As the researcher have gone through many studies no study was done so far regarding women combating sports specially in physical fitness and physiological aspects. Therefore the present study was designed with the purpose to evaluate the effect of weight loss on various physical fitness of sports women of judo in Punjab state

## **METHODS AND PROCEDURE**

To carry out the study 50 female judokas were selected randomly having representing state /University from all over the Punjab .The age ranged between 18-25 years .the samples were collected from Amritsar ,Ludhiana ,Patiala and Mansa Districts of Punjab.

### **Selection of Variables**

Marine corps physical fitness test was used to measure the physical fitness of the judokas. The test items were:

- Shuttle Run
- Knee push ups
- Bent knee sits up
- Jump and reach
- 600 yard run walk

### **Shuttle Run**

To measure the agility shuttle run test was conducted. Two blocks of wood and a stop watch were used. The students stand opposite to the line where wooden blocks were placed. On the command of start the students ran toward wooden block and picked one of them and place the block on the line from where the test started she continued to run and similarly lifted the other block and places it at starting line. The score was the elapsed time recorded in second and tenths of second.

### **Knee Push Ups**

To measure the strength knee push ups test was conducted on the comfortable surface. To count the push ups stop watch was used. The sportswomen were in a position in which the hands are placed on the mat shoulder width apart, the knees were in contact with mat and the body was kept straight from head to knees. The girls bend their arms to touch the chest to the floor and pushed up again. The girls repeated the exercise with no rest for 60 seconds. The number of push ups performed by the girls in 60 seconds was their score.

### **Bent Knee Sit Ups**

To measure the abdominal strength and endurance sits up test was conducted on the levelled surface. To count the sits up stop watch was used. To assume the starting position the girls was laid on her back with knee flexed feet on floor, with the heels between 12 to 18 inches from the buttocks. The arms were being crossed on the chest with hands on the opposite shoulders. The feet were held by a partner to keep them in touch with & surface. The girl by tightening her abdominal muscles curled to the sitting position Arms contract with the chest was maintained the chin should remain stuck on the chest. The sits up was completed when the elbow touched the thigh. To complete the sits up the girl returned to the down position until the mid back made contact with the testing surface. The number of correctly executed sits up performed in 60 seconds was the score of the subjects.

### **Jump and Reach**

To measure the power of legs jump and reach test was conducted. The student was assuming in a standing position facing sideways to the jump board. The student stands as tall as possible on the toes and the height of extended finger of raised arm was recorded. Then on

the command of jump the student was jump as high as possible and the height was recorded. Difference between the reaching height and jumping height was the score of the subject.

### 600 Yard Run Walk

To measure the endurance 600 yard run walk was conducted. The track and stop watch were used. The subject was instructed to stand in a group. The students was interspaced her running with periods of walking and was encouraged to pace herself. When a group was running the timer can call out times as each student crosses the finish line. The score was the elapsed time in minutes and seconds.

### DESIGN

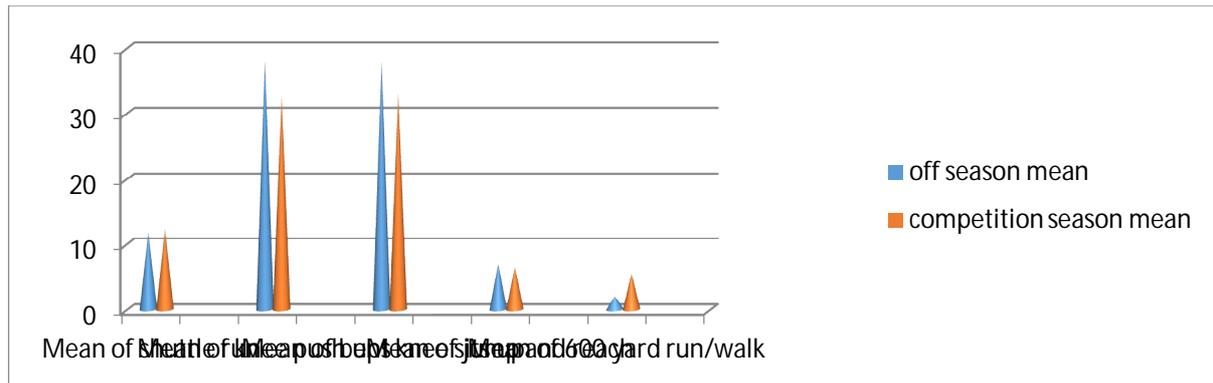
To examine the significant differences between off season and competitive season of judo female sports person. The 't' test was applied for data analyses with the help of SPSS software .The level of significant was set at 0.5 level.

### RESULTS AND DISCUSSION

The purpose of the present study was to compare the physical fitness variables of judo players during off season and competition period The table given below reveals the result of physical fitness variables i.e. strength speed endurance and agility of judo players during off season and competition period. It is evident there have been significant different found on variables; shuttle run push ups,bent knee sit-up and jump and reach while comparing the mean value of both phases of 600 yard run found insignificant at 0.5 level of confidence. It is concluded from the results that judo players have better physical fitness in off season as compare to the competition season.Franchi et.al (2012) explored that rapid weight loss in combat sports adversely affect their physical and physiological functioning

#### Comparison of Physical Fitness of Judo Players during off Season and Competition Period

		off season	competition season	t value	pvalue
		mean	mean		
1	shuttle run	11.78	12.36	4.225	.000<0.5
2	knee push ups	38.16	32.76	11.215	.000<0.5
3	bent knee sits up	38.02	33.14	12.119	.000<0.5
4	jump and reach	697.22	648.6	26.02	.000<0.5
5	600 yard run/walk	2.04	5.5	1.063	.293>0.5



### Graphical representation of comparison of physical fitness of judo players during off season and competition period

The findings of the study revealed that except 600 yard run all physical fitness variables found significance. It was concluded that due to weight reduction there is adverse effect on the physical fitness of judo players.

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