



# COMPARISON ON SELECTED PHYSIOLOGICAL VARIABLES COMPONENTS AMONG TRADITIONAL EVENTS PARTICIPANTS OF JALLIKATTU AND SILAMBAM

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## ABSTRACT

The aim of the present study is to comparison on selected physiological variables components among traditional events participants of jallikattu and silambam. For the present study 40 male players were selected during the traditional events participants. Between the age group of 19-25 years i.e. 20 male jallikattu and 20 male silambam Players of various districts in Tamilnadu were taken for the study. The pulse oximeter test was used to assess the pulse rate and the nose clip method test was used to assess breath holding time among jallikattu and silambam Players. The results of the study show that the jallikattu is having very good pulse rate and breath holding time compare to the silambam Players. It is recommended that jallikattu and silambam players must be given good pulse rate and breath holding time to enhance the performance.

**KEYWORDS:** pulse rate and breath holding time

## INTRODUCTION

Jallikattu, also known as eru thazhuvuthal and mañcuvirattu, is a traditional event that has been a part of Tamil Nadu's cultural heritage for centuries. This event involves releasing a bull, typically of the Pulikulam or Kangayam breed, into a crowd of people who attempt to grab the large hump on the bull's back with both arms and hang on to it while the bull attempts to escape. The participants hold the hump for as long as possible, attempting to bring the bull to a stop. In some cases, participants must ride long enough to remove flags on the bull's horns.

Jallikattu is usually practised in Tamil Nadu during the Pongal festival, specifically on Mattu Pongal day, which falls annually in January. The sport is an integral part of the celebrations, and the event is steeped in cultural and religious significance. The event symbolises the bond between humans and bulls and is believed to bring good fortune to the community. In fact, the term "jallikattu" is derived from the Tamil words "salli" and "kattu," which mean coins and package, respectively, and the sport is said to have originated as a way for young men to prove their strength and win a bride.

Despite its cultural significance, there have been several incidents of injury and death associated with Jallikattu. These incidents have occurred both to the participants and to the animals forced into the sport, leading animal rights organizations to call for a ban on the sport. The Indian Supreme Court has banned Jallikattu several times over the past few years, citing concerns over animal cruelty and human safety. ( **Ayyappan, A 1965**).

Silambam is a weapon-based Indian martial art originating in South India in the Indian subcontinent. This style is mentioned in Tamil Sangam literature. The World Silambam Association is the official international body of Silambam References in the Silappadikkaram and other works of the Sangam literature show that Silambam has been practiced since at least the 4th century BC. It derives from the Tamil word silam, meaning hill. The term silambambu referred to a particular type of bamboo from the Kurinjimala (kurinji hills) in present-day Kerala. Thus silambam was named after its primary weapon, the bamboo staff. It may have earlier used for self-defense and to ward off animals in the Kurinji hills and later evolved into the present-day martial art. Bamboo staffs – as well as swords, pearls and armor – were in great demand from foreign traders. The ancient city of Madurai formed as the point of focus of Silambam's spreading. The Silambam staff was acquired by the Egyptians, Greeks and Romans and was spread back to the Middle East, Europe and North Africa.



**Physiological variables** are essential measurements that provide insight into the functioning of the human body. These variables include heart rate, blood pressure, body temperature, respiratory rate, and oxygen saturation. They are measured to assess the health status of an individual and to monitor changes in response to various interventions, such as exercise, medication, or surgery. Heart rate is the number of times the heart beats per minute and is a critical indicator of cardiovascular health. It can be measured at rest or during physical activity to assess the heart's ability to pump blood efficiently. An elevated heart rate may indicate an increased risk of heart disease or other health conditions.

## METHODOLOGY

For the purpose of this study, altogether forty traditional event participants were selected randomly 18 to 25 years of age from various districts in Tamilnadu. Their age group ranges from 18 to 25 years. They were divided into two groups of 20 each. The jallikattu and Silambam Players are made to pulse rate and breath holding time were selected as dependent variables and it was measured by pulse oximeter and nose clip method in each batch of two members. The timing was taken by researcher. The selected tests were measured by following units for testing:

Criterion Variables	Test Items	Unit Measurements
pulse rate	pulse oximeter	Seconds
breath holding time	nose clip method	Seconds

## STATISTICAL TECHNIQUE

Descriptive statistics the analysis of variance (ANOVA) will be used to find out the significance among the mean differences, whenever the 'F' ratio for will be fixed to test hypothesis. The adjusted test will be found to be significant Scheffe's Post hoc test will use. In all cases 0.05 level of significance.

## RESULTS AND DISCUSSIONS

The impact of independent variables on each criterion variables was considered by 'F' ratio on the data achieved for pulse rate and breath holding time. The means of jallikattu and silambam have been analyzed and existing in Table II.

**TABLE – II**  
**MEAN AND 'F'– RATIO FOR THE PRE AND POST TESTS ON PULSE RATE AND BREATH HOLDING TIME OF JALLIKATTU AND SILAMBAM**

S.No	Variables	Jallikattu Mean	Silambam Mean	Source of variables	Sum of Square	df	Mean Square	'f'–ratio
1.	Pulse rate	71.80	70.83	Between	20.06	1	10.03	3.09*
				Within	28.33	37	3.24	
2.	Breath holding time	39.50	39.46	Between	24.68	1	12.34	3.17*
				Within	33.23	37	38.20	

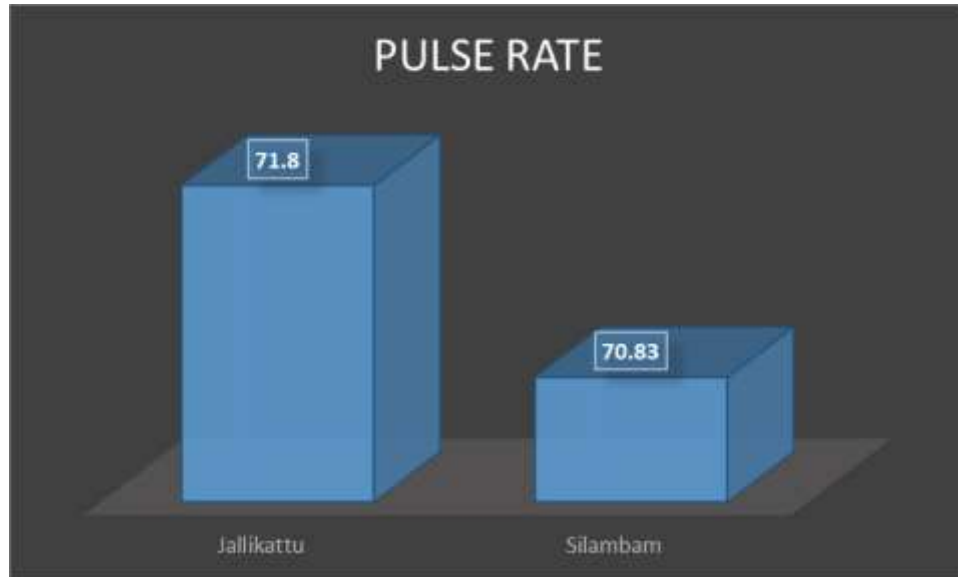
\*Significance at 0.05 level of confidence (2.70).

The table II shows that, they obtained 't'–ratio between the means values of jallikattu group were 71.80, 70.83 and silambam group were 70.83, 39.50 respectively. The table values required for significant difference with df 37 at 0.05 level of confidence. Since the obtained 'f' – ratio value of experimental group on pulse rate and breath holding time were greater than the table value 2.99, 3.09 and 3.17 it was concluded that the jallikattu group had significantly improved pulse rate and breath holding time.

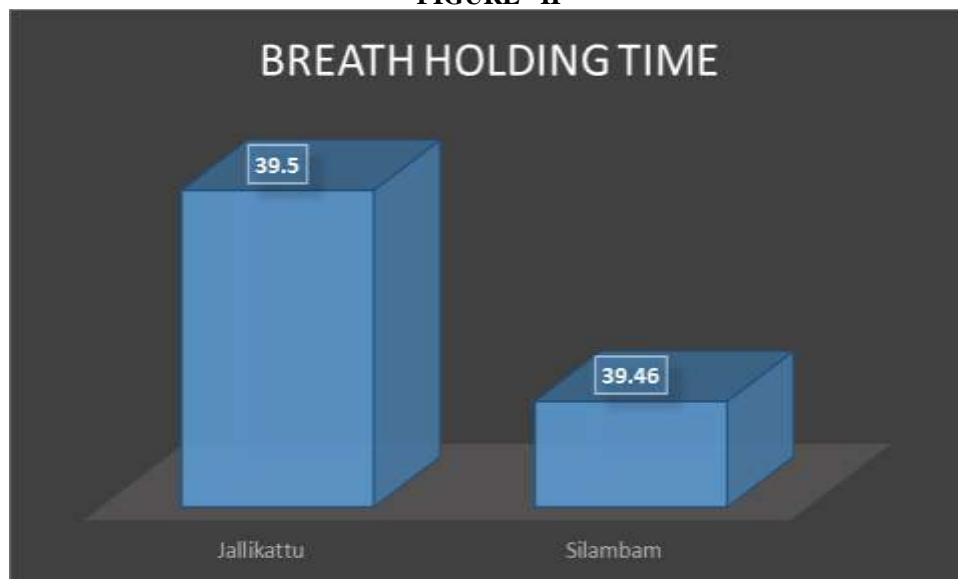
Mean and 'F'– ratio for the pre and post tests on pulse rate and breath holding time of jallikattu and silambam were graphically represented in the figure 1 and II.



**FIGURE -I**



**FIGURE -II**



## DISCUSSION

On the basis of the result of the study, it can be concluded that there was a significant difference between the jallikattu and silambam of traditional events participants in relation to breath holding time ability. kalari players have speedier in comparison to silambam players due to the nature of the game, training schedule, ground length and flat running according to game demand. Sorabh Trikha (2014). Has conducted a study on Comparative Status of flexibility and Speed between Different Team Games, he found significant difference between Football and Hockey players in relation to pulse rate ability. Some other studies conducted by Natraj H.V. & Chandrakumar, M. (2006), Uppal and Roy (1986) and Angyan (1989) were support the result of the present study.

## CONCLUSION

It was concluded that jallikattu participants than the silambam participants were better on selected psychological variables namely pulse rate and breath holding time.



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