



A RESEARCH ON THE IMPACT OF TRATAKA ON CRICKET PLAYER PERFORMANCE

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Abstract

In present era now it is quite clearly proved that Trataka plays a great importance in normal peoples' life as well. There are a lot of hobbies and sports where contributions are crucial to improving performance. It was in the sixteenth century when schoolboys in Guildford first recorded playing cricket, suggesting that the game has its roots in that era. The first known mention of cricket is in an Italian-English lexicon. This study set out to answer the question, "How does Trataka affect the health-related and skill-related physical fitness factors of cricketers?" by looking at batting average, reaction time, and resting heart rate, three measures of physical fitness. The participants in the research were young adults (ages 15–18) from a single cricket academy in Bilaspur, Chhattisgarh. Forty male cricket players served as the study's subjects; they were separated into an experimental group and a control group at random. We used a "t" test to compare the control group's with the experimental group's health and skill-related fitness data. The chosen p-value for significance was 0.05. The experimental group's health and skill-related physical fitness levels changed significantly between the beginning and end points of the six-week Trataka training program. The resulting "t" ratios for batting average, reaction time, and resting heart rate were 4.60, 3.24, and 2.90, respectively. Despite the computed "t" value being 2.02, the obtained "t" ratio in each of the three instances was higher. With 38 degrees of freedom, we determined that the three outcomes indicated above were significantly different at the 0.05 level of significance. According to the data in the table, the control group's health and skill-related physical fitness scores did not change significantly between the beginning and end of the study. A look at the "t" figures for batting average, reaction time, and resting heart rate reveals this to be the case. At the 0.05 level of significance and 38 degrees of freedom, these results were all below the necessary tabulated "t" value of 2.02.

Keywords: Batting average, reaction time, yoga, cricket, health-related fitness, skill-related fitness, resting heart rate

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Introduction

Cricket is believed to have begun in England in the late Middle Ages; however, its exact origins are obscure and surrounded by mystery. In 1369, Edward III outlawed the cricket-like game known as "pila baculovirus" or "club ball." He banned the game because he thought it was taking focus away from his military operation. The fascinating book *A Social History of English Cricket* by Derek Birley contends that the French introduced cricket to England during the Norman Invasion. According to him, King Edward III sought to outlaw a regional variation of club ball known as "criquet" in France. "Creag" is a variant of "creaget" that appears in the Royal Wardrobe Accounts dated 1299–1300. Prince Edward II was known to partake in several games, including 'creag'. Since the links between creag and criquet are tenuous at best and these games are almost never mentioned in historical accounts from that time, we can only infer that the aristocracy either participated in or sought to outlaw them because of the moral decay they were believed to represent. The first known players of cricket were schoolboys from Guildford in the sixteenth century. An Italian-English dictionary from 1598 has the first recorded mention of cricket.

The ancient Indian practice of yoga has many positive effects on one's emotional, mental, and moral health. As human civilization progressed, so did the practice of yoga. An authorized yoga text, the *Hatha Yoga Pradipika*, states that Lord Shiva was the first yoga teacher. But according to the *Bhagavad-Gita*, Krishna is the one who first taught yoga. There are yoga-related historical documents that go all the way back to 4500 B.C. The time between the beginning of recorded history at around 4500 B.C. and the beginning of the Patanjali era is known as the pre-Patanjali period. The main sources that were accessible throughout that time include the Vedas, Upanishads, Smṛti texts, Jainism, Buddha's teachings, epics, Puranas, and Panini's writings.

The purpose of this research was to examine how various Trataka workouts affected the cricket players' general health and fitness levels as they pertained to their individual skills. Researchers were hoping to glean useful information from the study that would allow them to include Trataka in other sports and comparable activities. Asana, pranayama, dharana, dhyana, and shuddhikriya are physical postures, regulated breathing, meditation, and cleansing practices, respectively, in a yoga practice that also includes yama and niyama, which relate to moral and ethical behavior. In both healthy and therapeutic settings, recent scientific investigations have examined the positive impacts

of yoga practices on various aspects of physiology and psychology (Field, 2016). Studying how yoga affects mental capacity and efficiency has been a major area of yoga study. Research has shown that practicing yoga can slow neuronal death and enhance the brain's adaptability by influencing regions of the brain responsible for memory, emotions, decision-making, self-awareness, and default mode network activity (Marciniak et al., 2014; Gothe et al., 2019). One big study that looked at fifteen randomized controlled trials (RCTs) and eight studies that looked at short-term exposure found that yoga is good for your brain's cognitive function, attention, information processing speed, and memory.

A number of cognitive functions have been shown to benefit from yoga activities, including taktas, pranayama, and meditation. Among them are measures of verbal and spatial memory, executive processes, focus, concentration, working memory, visual attention, task-switching, and inhibition of responses. Numerous studies have shown these beneficial benefits; for example, Joshi and Telles (2008), Garg et al. (2016), Gupta et al. (2019), Naveen et al. (1997), Chattha et al. (2008), Subramanya and Telles (2009), Rajesh et al. (2014), Jarraya et al. (2019), and Anusuya et al. (2021). When compared to other physical activities, yoga has a greater impact on improving students' cognitive performance, according to research by Vhavle et al. (2019).

The six purification practices have a profound impact on several aspects of a person's character, as described in Hathayoga's traditional teachings and supported by research (Muktibodhananda, 1999; Swathi et al., 2020). As a purifying technique that enhances eyesight and positively affects cognitive abilities, yogic attention on the visual field (trataka) is highly appreciated. One aspect of the practice of trataka is gazing intently at a candle flame; this helps one focus their thoughts and opens their third eye (Muktibodhananda, 1999). Trataka has been shown to improve cognition in studies on the Stroop Task, Six Letter Cancellation, Trail Making, and Critical Flicker Fusion (Raghavendra and Singh, 2016; Sherlee and David, 2020; Talwadkar et al., 2014; Mallick and Kulkarni, 2010). We postulate that Trataka may have a positive effect on cognitive processes, such as working memory and spatial awareness, based on prior studies on Trataka and cognition. One neuropsychological test that measures working memory and visuospatial short-term ability. Computers can be used to accurately acquire data and complete the work (Kessels et al., 2000; Siddi et al., 2020). Considering its extensive

use and ease of administration, the current study sought to evaluate the effect of Trataka.

Research methodology

Forty players from a Barasat cricket academy were randomly selected to participate in the study. The participants' ages ranged from fifteen to eighteen. The experimental group was given a specific Trataka solely after being divided into two. The individuals in the control group continue with their regular activities. The participants were evaluated for a variety of physical fitness metrics, including batting average, reaction time, and resting heart rate, which are all linked to the participants' overall health. We recorded the batting average in inches after using the "sit and reach test" to quantify it. Quickness of Response. Also recorded in seconds were the subjects' resting heart rates and the scores associated with them. Two sets of data were collected to measure the aforementioned parameters: one before the Trataka training and one after it was finished.

Trataka training lasts eight weeks. Eight weeks made up the Trataka training cycle. Every week, the asanas were done more often, for longer durations, and with more repetitions. The practice of trataka entails fixing one's eyes on a fixed spot. It is said to enhance focus and clarity of thought, making it a popular tool for meditation. The duration of each Trataka session was twenty minutes. Sitting comfortably on the floor with their legs crossed, the participants rested for the duration of the session. Two distinct phases make up the procedure. The first stage of eye exercises in every Trataka session lasts for 10 minutes. Experiments were carried out in a well-lit, soundproof recording room within the lab, with participants maintaining an open-eye position. Now the participants were

told to move their eyes in a square, diagonal, horizontal, and circular pattern. Both the second nervous system and the heart are abnormal. People who have a history of substance abuse or smoking were also not included. Scrying entails staring intently into a candle flame in a low-light setting, with the candle held two meters above the practitioner's head. All participants were asked to keep their gaze fixed on the candle flame for two or three minutes without blinking. After that, with their eyes closed, the participants were to visualize the candle flame placed directly between their eyebrows. There were three iterations of this technique. The practice came to a peaceful close with a prayer after the participants were told to take their minds off the assignment. Ten minutes was the length of this phase. All participants were expected to follow the exercise exactly as it was prerecorded.

Exercise for visual improvement.

During the eye exercise, participants would first sit quietly with their eyes closed for 10 minutes, after which they would move their eyes in a variety of directions (horizontal, vertical, diagonal, and circular). The part where the subjects had their eyes open was carried out in a well-lit room, while the part where they had their eyes closed was done by dimming the lighting so that the treatments were uniform.

Methods using statistics

Collecting and analyzing data on batting average, reaction time, and resting heart rate was done using a "t" test. We determined the selected level of significance at We will use a significance level of 0.05.

Data analysis and interpretation

Table 1: Means, Standard Deviations and "t" ratio of Batting Average between Pre and Post-test of two groups

Particular	Variables	Pre-test mean	Post-test mean	't' ratio
Experimental group	Batting	12.13	16.35	4.60
Control group	Average	12.56	12.87	1.85

$$"t">0.05(38)= 2.02$$

The difference between the tabulated "t" value (2.02), which was smaller than the computed "t" value (4.60), was readily apparent from the

preceding table. There was sufficient data to suggest that trataka training significantly impacts cricketers' Batting Average.

Table 2: Means, Standard Deviations and "t" ratio of Reaction Time between Pre and Post-test of two groups

Particular	Variables	Pre-test mean	Post-test mean	't' ratio
Experimental group	Reaction Time	22.50	27.35	3.24
Control group		21.75	22.07	1.76

It was evident from the table that the tabulated "t" value was 2.02 and the computed "t" value was 3.24. There was sufficient data to suggest that

cricketers' reaction times are significantly improved with Trataka training.

Table 3: Means, Standard Deviations and "t" ratio of Resting Heart Rate between Pre and Post-test of two groups

Particular	Variables	Pre-test mean	Post-test mean	't' ratio
Experimental group	Resting Heart Rate	10.34	15.42	2.90
Control group		10.75	11.38	1.60

The computed "t" value (2.90) was clearly higher than the tabulated "t" value (2.02), as can be seen in the table above. There was sufficient data to suggest that yoga training significantly impacts cricketers' resting heart rates.

Discussions of Findings

The findings indicate that following an 8-week training regimen with Trataka, there was a discernible enhancement in batting average, reaction time, and resting heart Rate. Firstly, it is crucial to recognize the significance of muscle in relation to the Average. Muscular endurance and the ability to contract are essential for flexing the required joints. Trataka facilitates the enhancement of the range of motion. Batting average is a crucial factor for enhancing performance in cricket, particularly in terms of muscular strength. Furthermore, without reaction time, no cricketer can sustain their performance for a prolonged duration. Trataka is a beneficial practice for enhancing the strength of the abdominal muscles. Ultimately, RHR might be considered the opposite of it in the context of cricket. Knowing one's resting heart rate is essential for properly performing any skill. The resting heart rate is crucial for those aspiring to play cricket at an elite level. Trataka is essential for determining the resting heart rate, even in challenging situations. A study was conducted on a group of twenty male hockey players to assess the effects of Trataka on batting average, strength and endurance. The results revealed a significant improvement in both aspects. In line with the aforementioned research, the present study discovered that Trataka had a substantial impact on batting average and strength and endurance. Conducted a study on a sample of 100 male gymnasts to assess the influence of various characteristics on their resting heart rates, including both static and dynamic measurements. The findings demonstrated a considerable enhancement in the cardiovascular health of the subjects following a three-month period of utilizing the characteristics. The results of this study, which demonstrate that Trataka had a statistically significant effect on batting average and strength and endurance, support the previous research

conducted by the author as indicated before.

Conclusion

The findings of this study indicate that regular Trataka practice can have significant advantages for young athletes, especially cricketers, in terms of enhancing their general well-being and performance in the field. Trataka has been demonstrated to enhance performance in terms of batting average, reaction time, and resting heart rate.

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