

## EFFECT OF YOGIC PRACTICE ON ANXIETY OF JUDOKAS

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### Abstract

**Context:** The contribution of physical and psychological factors to the performance of sportsperson is vital and should not be overlooked. Achieving the highest level of performance in sports demands a cohesive integration of these two factors. Athletic performance is increasingly influenced by psychological factors rather than solely relying on the athlete's physiological health. It has become evident that various mental aspects play a significant role in enhancing physical capabilities. The focus of sport psychology is primarily on enhancing performance and ensuring the well-being of athletes.

**Aim:** The study was carried out to analyse the Effect of Yogic Practice on Anxiety of Judokas.

**Methodology:** A research study was conducted with 30 female Judokas from the Mayai Lambi Judo Academy located in Mayang Imphal, Manipur, all of whom had participated in national competitions. The age range of the participants was between 16 and 19 years. They were divided into two equal groups of 15. Group A, identified as the Experimental Group, participated in yoga training, while Group B, the control group, did not receive any training. The experimental group practiced yoga five days a week, with one hour of sessions in the morning, while the control group continued with their standard exercise regimen for the same duration. The assessment of anxiety was conducted at two points: before (Pre-test) and after (Post-test) the experimental period, employing the Sports Competition Anxiety Test (SCAT) developed by Rainer Martens.

**Results:** Statistical evaluation of the data was performed using a t-test, with a significance level fixed at 0.05. The results of this study indicated that the eight weeks of yogic practice had a significant influence on the anxiety of Judokas in the experimental group (E.G.) compared to those in the control group (C.G.). The pre-test outcomes for both the experimental and control groups showed no significant differences; in contrast, a significant difference was noted between the two groups in the post-test.

**Conclusion:** It is concluded that engaging in yoga led to a reduction in anxiety among Judokas. Notably, after eight weeks of consistent yoga practice, judokas experienced a significant reduction in their anxiety.

Keywords: Yoga, Yogic practice, Anxiety, Judokas

## Introduction

Sport psychology is an interdisciplinary field that integrates insights from various related domains such as biomechanics, physiology, kinesiology, and psychology. It examines the influence of psychological elements on athletic performance and explores how engagement in sports and physical activities impacts both psychological and physiological aspects (Weinberg RS et al.,2010). Applied sport psychology not only focuses on the instruction and training of psychological skills for performance enhancement but also includes collaboration with athletes, coaches, and parents on issues such as injury, rehabilitation, communication, team development, and career transitions. Essentially, sports psychology examines the influence of mental processes on physical activity and athletic performance (Elmagd MA,2016). As stated by the American Psychological Association, sports psychology focuses on the relationship between psychological processes and sports performance. It includes the mental elements that facilitate optimal athletic achievement, the psychological health and support of athletes, coaches, and sports entities, and the link between physical and psychological well-being. The contribution of physical and psychological factors to the performance of sportsperson is vital and should not be overlooked. Achieving the highest level of performance in sports demands a cohesive integration of these two factors (Pathekar S et al.,2022). Athletic performance is increasingly influenced by psychological factors rather than solely relying on the athlete's physiological health. It has become evident that various mental aspects play a significant role in enhancing physical capabilities. Numerous performance enhancement techniques have been formulated in applied sport psychology over the last few decades. The focus of sport psychology is primarily on enhancing performance and ensuring the well-being of athletes. Studies have shown that issues such as competitive anxiety and fear of failure can adversely affect athletic performance (Birrer D et al.,2012). Elevated performance anxiety and poor emotional management are often interconnected, frequently resulting in decreased performance and other negative consequences (Hardy L et al.,1997, Hanin YL 1995, Sappington R et al.2015 and Woodman T et al.,2001). Performance anxiety involves the stress that people experience in the lead-up to or while executing crucial tasks, which can negatively affect their performance (Angelidis et al., 2019). Performance anxiety can lead to a phenomenon known as "choking," which refers to a significant decline in performance across various domains such as sports, professional environments, and educational contexts when individuals feel pressured. Increased effort in these situations often exacerbates the anxiety, resulting in poorer outcomes (Kremer et al., 2019). It has been suggested by sports psychologists that during competitive sporting events, individuals will conduct cognitive assessments concerning the perceived discrepancies between the demands of the situation, their available resources, the consequences involved, and the significance of those consequences (Ford et al., 2017,). Several initiatives have been established to resolve these concerns affecting athletes. Yoga, as a comprehensive discipline, integrates various features such as physical postures, breathing exercises, and meditation, with the objective of promoting and balancing physical, mental, emotional, and spiritual wellness (Ross A et al.,2010). Different styles of yoga are available for practitioners, such as (Hatha, Power, Iyengar, Ashtanga, Vini, Kundalini, and Bikram), each style emphasizes unique aspects and varies in its level of physical intensity. The benefits of practicing yoga are manifold, including heightened flexibility and agility (Bal BS et al., 2009), increased strength, steadiness and control (Hart CE et al.,2008) as well as better cardiorespiratory performance and overall well-being (Harinath K et al.,2004).

It also contributes to mood improvement and anxiety reduction (Streeter CC et al.,2010), lowers perceived stress levels (Hartfiel N et al., 2011), helps prevent injuries, and fosters enhanced body awareness, recovery time, and endurance (Sharma L et al.,2015). In spite of the numerous recognized benefits, there exists a limited number of studies that have investigated the effects of yoga on the psychological well-being and athletic performance of athletes.

### Research Challenge

The Purpose of the study was to find out, the effect of yogic practice on anxiety of Judokas.

### Methodology

A study was carried out involving 30 female Judokas from the Mayai Lambi Judo Academy in Mayang Imphal, Manipur, all of whom had competed at the national level. The participants were aged between 16 and 19 years. They were divided into two equal groups of 15. Group A, identified as the Experimental Group, participated in yoga training, while Group B, the control group, did not receive any training. The experimental group practiced yoga five days a week, with one hour of sessions in the morning, while the control group continued with their standard exercise regimen for the same duration. The assessment of anxiety was conducted at two points: before (Pre-test) and after (Post-test) the experimental period, employing the Sports Competition Anxiety Test (SCAT) developed by Rainer Martens, which includes 15 items.

### Selection of Variables

The researcher performed an extensive review of the scientific literature and journals, while also consulting with experts in the field. The investigator took into consideration the feasibility and availability of the instruments, along with the relevance of the variables to the study at hand.

The independent variables presented below have been selected for the purpose of yogic practice

**Yogic Sukshma Vayam** (Yogic warm-up),

**Suryanamaskar**

**Asanas: Yogic standing asana:** Vrikshasana, Thrikonasana, Ardha Chandrasana, **Yogic**

**kneeling asana:** Virasana, Bitilasana Marjaryasana, Ustrasana, **Yogic sitting asana:**

Uttana Shishosana, Baddha Konasana, Paschimottanasana, **Yogic prone asana:**

Dhanurasana, Bhujangasana, Naukasana, **Yogic supine asana:** Viparita Karani,

Matsyasana, setu Bandhasana, Sarvangasana, Halasana

**Pranayama:** Nadi Shodhana, Bhramari, Ujjayi, Bhastrika

**Meditation**

**Table1: Dependent Variable**

Psychological Variables	Test	Criterion Measurement
Anxiety	SCAT	Questionnaire method

### Statistical Analysis

The analysis to identify any significant differences in the pre- and post-test means for Anxiety between the Experiment group (E.G) and the Control group (C.G) utilized a “t-test” as a statistical method. A significance level of 0.05 was established. SPSS was used for all statistical analyses.

### Results

Table 2: Comparison of Paired ‘t’-test scores of pre-test and post-test for Experiment group of Judokas on Anxiety

Variable	Group	Test	N	Mean	S.D.	‘t’ value	Significance*
Anxiety	Experiment Group	Pre-test	15	18.33	2.609	5.104	.000
		Post-test	15	17.07	2.865		

\*Significance at .05 level ‘t’0.05 (14) = 2.145

The findings presented in Table 2 indicate that the paired sample t-test results show the mean score and standard deviation for anxiety in the Experiment Group (E.G.) of Judokas. The pre-test results are (M=18.33, SD=2.609), while the post-test results are (M=17.07, SD=2.865), both assessed at a significance level of 0.05

Additionally, it was indicated that the calculated t-value for the experimental group (E.G.) in Anxiety,  $t(14) = 5.104$ , is higher than the tabulated t-value,  $t(14) = 2.145$ , and the p-value of 0.00 is below 0.05. As a result, a significant difference was observed between the Pre- and Post-test evaluations of the experimental group (E.G.) in relation to the Anxiety of Judokas.

Fig 1: Graphical Representative of Mean, SD of pre and post-test of an experimental group of judokas on Anxiety

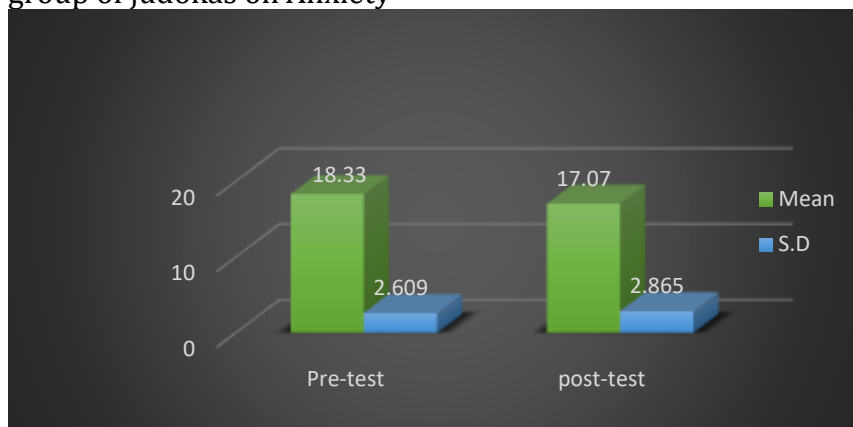


Table 3: Comparison of Paired ‘t’-test scores of pre-test and post-test for Control group of Judokas on Anxiety

Variable	Group	Test	N	Mean	S.D.	‘t’ value	Significance*
Anxiety	Control Group	Pre-test	15	19.07	2.840	1.871	.082
		Post-test	15	19.27	2.815		

\*Significance at .05 level ‘t’0.05 (14) = 2.145

The findings presented in Table 2 indicate that the paired sample t-test results show the mean score and standard deviation for anxiety in the Experiment Group (E.G.) of Judokas. The pre-test results are (M=19.07, SD=2.840), while the post-test results are (M=19.27, SD=2.815), both assessed at a significance level of 0.05.

It is clear that the t value computed for the control group (C.G.) in Anxiety is  $t(14) = 1.871$ . This value is less than the tabulated t-value of  $t(14) = 2.145$ , and the p-value of 0.82 is greater than the threshold of 0.05. Consequently, there is no significant difference observed between the Pre- and Post-test results of the control group (C.G.) regarding the Anxiety of Judokas.

Fig 2: Graphical Representative of Mean, SD of pre and post-test of a Control group of judokas on Anxiety

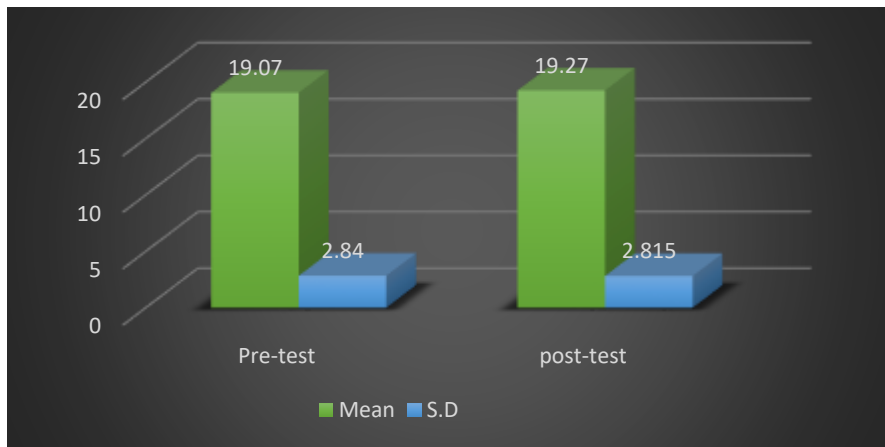


Table 4: Comparison of the Experimental and Control Groups' Pre-Test Anxiety Scores

Variable	Group	Test	N	Mean	S.D.	't' value	Significance*
Anxiety	Experiment Group	Pre-test	15	18.33	2.609	.736	.468
	Control Group	Pre-test	15	19.07	2.840		

\*Significance at .05 level 't'0.05 (28) = 2.048

The data illustrated in Table 4 indicates that the mean Pre-test scores for the Experimental Group and the Control Group were 18.33 and 19.07, respectively, while their standard deviation scores were 2.609 and 2.840. The analysis revealed that the t-value was not statistically significant, with a computed value of  $t(28) = 0.736$  being lower than the tabulated value of  $t(28) = 2.048$ , and the p-value of 0.468 was higher than 0.05.

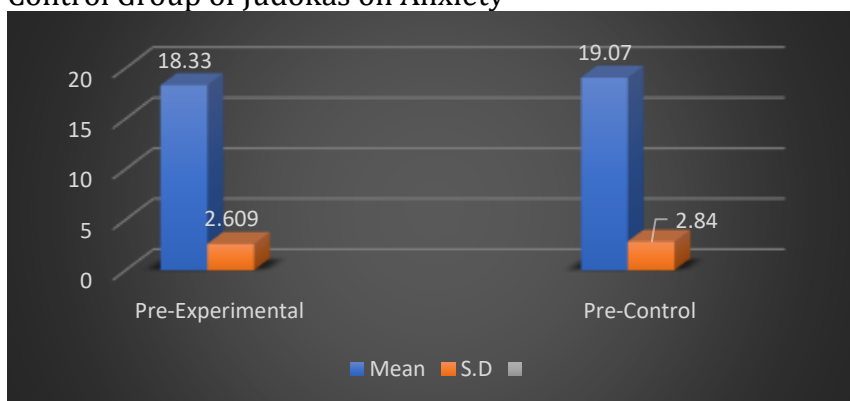


Table 5: Comparison of the Experimental and Control Groups' Post-Test Anxiety Scores

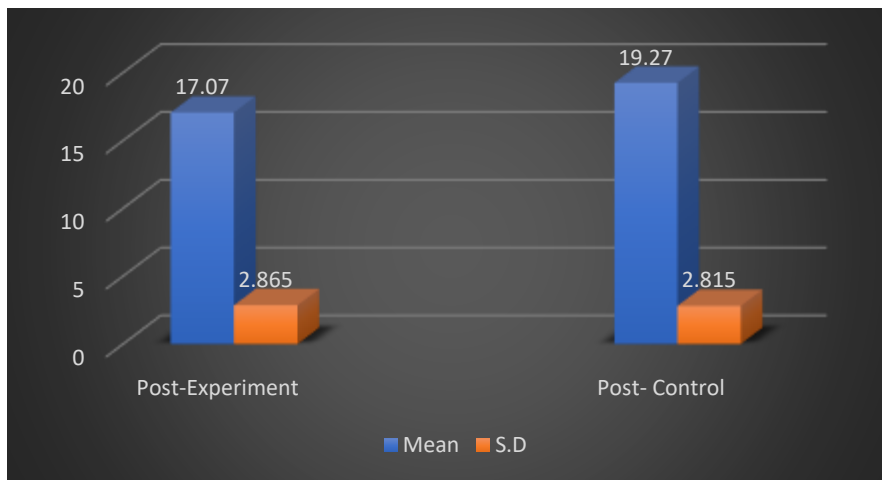
Variable	Group	Test	N	Mean	S.D.	't' value	Significance*
Anxiety	Experiment Group	Post-test	15	17.07	2.865	2.121	.043

	Control Group	Post-test	15	19.27	2.815		
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\*Significance at .05 level 't'0.05 (28) = 2.048

The findings in Table 5 reveal that the mean Pre-test scores for the Experimental Group and the Control Group were 17.07 and 19.27, respectively, with standard deviations of 2.865 and 2.815. The analysis showed that the t-value was statistically significant, with a calculated t-value of  $t(28) = 2.121$  exceeding the tabulated t-value of  $t(28) = 2.048$ , and the p-value of 0.043 was below the threshold of 0.05.

Fig 4: The Graphical Representation of Mean, S.D between Post-Experimental and Post-Control Group of Judokas on Anxiety



## Discussion

The current study assessed the effect of yogic practice on anxiety of judokas. The results revealed that engaging in yoga led to a reduction in anxiety among these athletes. Notably, after eight weeks of consistent yoga practice, judokas experienced a significant reduction in their anxiety. A study by Briegel-Jones et al. analysed the effects of yoga on elite youth swimmers. Findings from this preliminary research suggested that a 10-week yoga program positively influenced a range of cognitive, performance, and physiological aspects. Findings revealed that participants enhanced their awareness of internal sensations, cultivated greater mindfulness while participating in activities, improved their ability to reframe negative thoughts, and experienced an increased sense of control and focus during their sports practice. Furthermore, in relation to contemplative practices (i.e., relaxation, body scanning) the researchers have found that yoga is more effective in increasing mindfulness and well-being, as well as in lowering perceived stress and anxiety levels (Carmody J et al., 2008). Kalaiarasi (2017) explored the effects of aerobic dancing and yogic practice on psychological variables in college women. The study concluded that the group practicing yoga exhibited a significantly greater reduction in anxiety levels than those participating in aerobic dancing and the control group. The aerobic dancing group, in contrast, experienced a lesser degree of anxiety reduction. Elumalai and Venkatachalapathy (2017) investigated the effect of yogic practices on tidal volume and anxiety among middle aged men. Their study concluded that these practices led to a significant rise in tidal volume and a considerable decrease in anxiety. Jelastin and Rufus (2017) conducted a study to assess the effects of yogic packages and mobility

training on selected psychological variables in volleyball players. The key outcomes of the research showed that the group involved in yogic packages achieved significant advancements in all targeted psychological variables after a twelve-week training period.

## Conclusion

The findings of this study have led the investigators to the following conclusions

- No significant differences were found in the anxiety of judokas in the control group when evaluating the pre-test and post-test data.
- The analysis revealed a significant difference in the anxiety of judokas in the experimental group between the pre-test and post-test evaluations.
- The analysis of the pre-test indicated no significant differences between the Experimental Group and the Control Group. However, a significant difference was observed in the post-test results between the two groups.
- A consistent practice of Yoga over eight weeks is advantageous for reducing anxiety in Judoka.

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