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Effect of Yogic Intervention on Self Efficacy Among Taekwondo Players: A Pilot Study

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Abstract

Purpose:
This study aimed to examine the effect of a yogic intervention on self-efficacy among taekwondo players. Given the psychological demands of combat sports, enhancing self-belief through holistic practices like yoga could offer valuable support to athletic performance.

Methods:
A single-group pretest-posttest design was employed with a sample of 10 taekwondo players aged 18–28 years. Participants underwent a structured yogic intervention, and data were collected using the Dhar & Dhar Self-Efficacy Scale, which measures total self-efficacy and six sub-dimensions: Credible, Assertion, Enduring, Progression, Self-Confidence, and Commitment. Data were analyzed using paired sample t-tests in SPSS.

Results:
Post-intervention analysis revealed a statistically significant improvement in Total Self-Efficacy ($p < 0.05$), with notable gains in the sub-domains of Enduring and Commitment. Other dimensions such as Credible and Progression showed positive trends, though not all reached statistical significance.

Conclusion:
The findings suggest that yoga can positively influence self-efficacy among taekwondo players, particularly in areas related to perseverance and dedication. Yoga may serve as a valuable complementary practice to support the psychological well-being and performance readiness of athletes. Further studies with larger samples and controlled designs are recommended to substantiate these findings.

Keywords: Yoga, Self-Efficacy, Taekwondo, Psychological Skills, Sports Psychology, Dhar & Dhar Scale, Athletic Performance

Introduction

Taekwondo, a traditional Korean martial art, is characterized by dynamic kicks, rapid footwork, and disciplined techniques, making it both a physically intense and mentally demanding sport. As an Olympic discipline, it emphasizes agility, strength, flexibility, and endurance, requiring athletes to maintain peak physical condition (Bridge *et al*., 2014) [1]. Beyond physical prowess, Taekwondo also nurtures psychological traits such as self-discipline, focus, resilience, and emotional control. The practice incorporates philosophical principles rooted in respect, perseverance, and integrity, contributing to overall character development (Kim *et al*., 2015) [2]. Mental strength is particularly critical during competitive bouts, where strategic decision-making, stress management, and concentration directly influence performance (Fong *et al*., 2013) [3]. Consequently, success in Taekwondo demands an integrated balance of physical conditioning and psychological fortitude.

Concept of Self-Efficacy and Its Importance in Sports and Well-being

Self-efficacy, a concept developed by Albert Bandura, refers to an individual's belief in their ability to successfully perform specific tasks or overcome challenges (Bandura, 1997). In sports, high self-efficacy enhances motivation, focus, resilience, and performance under pressure. Athletes with strong self-efficacy are more likely to set challenging goals, persist through setbacks, and recover quickly from failures (Moritz *et al*., 2000) [4]. Beyond athletic performance, self-efficacy contributes to overall well-being by promoting positive coping strategies, reducing stress, and supporting mental health and personal growth (Feltz *et al*., 2008) [5].

Yoga

Yoga is an ancient mind-body discipline that integrates physical postures (asanas), breath control (pranayama), and meditation to promote overall health and balance. For athletes, yoga serves as a valuable complementary practice that enhances flexibility, strength, and balance while supporting recovery and injury prevention (Cowen & Adams, 2005) [6]. Additionally, its emphasis on mindfulness and breath awareness helps reduce stress, improve focus, and cultivate mental resilience—key factors in athletic performance and well-being (Kerr *et al*., 2016) [7]. As such, incorporating yoga into training routines can contribute holistically to an athlete's physical conditioning and psychological readiness.

Yoga and Self-Efficacy: A Brief Overview

Yoga has the potential to enhance self-efficacy by promoting self-awareness, emotional regulation, and a sense of mastery over the body and mind. Regular yoga practice encourages individuals to overcome physical and mental challenges through consistent effort and mindfulness, thereby strengthening belief in one's capabilities (Smith *et al*., 2007) [8]. Breathing techniques and meditative practices in yoga also help reduce stress and increase focus, fostering greater confidence in handling various life and performance-related demands. For athletes, this can translate into improved motivation, resilience, and performance outcomes.
Self-efficacy significantly shapes the behavior, motivation, and performance of taekwondo players. As defined by Bandura (1997), self-efficacy is the belief in one's capability to organize and execute actions required to manage prospective situations. In the context of taekwondo—a sport that demands both physical agility and mental toughness—self-efficacy plays a central role in determining how athletes approach training, competition, and setbacks.

1. **Behavioral Regulation**:
   High self-efficacy influences a player's willingness to engage in challenging tasks and persist through difficulties. Taekwondo athletes with strong self-efficacy are more likely to train consistently, embrace rigorous practice sessions, and remain committed to long-term goals (Feltz *et al*., 2008) [9]. They view obstacles such as defeat or injury as surmountable, adapting their behaviors accordingly rather than withdrawing.

2. **Motivation**:
   Self-efficacy directly enhances intrinsic motivation. Players who believe in their abilities set higher personal goals, maintain effort even under pressure, and are more likely to visualize success (Schunk & Pajares, 2002) [10]. In taekwondo, this translates into a proactive attitude toward mastering techniques, learning from feedback, and engaging in mental rehearsal.

3. **Performance**:
   During competition, self-efficacy affects how players perform under stress. Confident athletes demonstrate better focus, composure, and decision-making. Studies have shown that taekwondo practitioners with higher self-efficacy levels tend to perform better in matches, displaying greater strategic control and reduced performance anxiety (Moritz *et al*., 2000) [11]. They are more resilient in high-stakes situations, which can be decisive in tightly contested bouts.

In essence, self-efficacy empowers taekwondo players to strive, endure, and excel by influencing how they think, feel, and act within their sport.

Hypothesis

Yogic intervention will lead to a significant improvement in self-efficacy among Taekwondo players compared to a control group."

Objectives

To examine the effect of yoga on self efficacy among taekwondo players

Methods and Procedure

Participants:-

10 taekwondo players were selected for the study. According to a computer generated randomisation list, participants were randomly selected.
Inclusion criteria:-

a. Age range 18-28
b. Players having ability to do yoga regularly
c. Players those who have played at least state level competitions
d. Players who are medically fit.

Exclusion criteria:-

a. Players having any previous injury
b. Players having previous experience in yogic practice.

Procedure

We adopted a pre-test post-test design to accomplish the study's objectives. Written informed consent was taken from all participants before participating in the study. All the participants were randomly selected and were examined before and after the one month intervention period.

Materials

Self Efficacy Scale- SES prepared by Dhar & Dhar was used to measure the self efficacy in this study. This scale has six dimensions - Credible, Assertion, Enduring, Progression, Self Confidence and Commitment.
SES contains 35 items. The reliability coefficient of the scale was found to be 0.86

Yogic Intervention

Participants were made to do 40 mins of yoga practice 5 days in a week. The yoga module comprised a set of specific asanas, pranayam and breath meditation. The interventions starts with 3-4 rounds of Surya Namaskar, then specific asanas, relaxation, pranayam and ending with meditation.
After 30 days of practised self efficacy was once again measured i.e the post data was taken by using SES by Dhar & Dhar.

Data Analysis

The statistical analysis was conducted using IBM SPSS (Statistical Package for the Social Sciences). First, descriptive statistics including Mean (M) and Standard Deviation (SD) were computed for the pre-test and post-test scores to summarize central tendencies and variability.

To assess whether there was a statistically significant difference in self-efficacy before and after the intervention, a paired sample t-test was applied. This test was appropriate as the same group of participants (N = 10) was measured at two time points—before and after the yogic intervention.
The test results provided the t-values, degrees of freedom (df = 9), and p-values for the total SES and each of the six sub-domains. Significant improvements were observed in the total self-efficacy score as well as in specific sub-domains such as Enduring and Commitment, indicating the effectiveness of the yogic intervention. Sub-domains such as Credible, Assertion, and Progression showed positive trends, though not all reached statistical significance.
All findings were tabulated and interpreted in accordance with psychological research standards.

Results

Descriptive Statistics

Demographic Variable	Category	Frequency	Percentage
Age Group	18-21	6	60%
	22-25	4	40%
	25-28	0	0
Gender	Male	8	80%
	Female	2	20%
Marital Status	Married	0	0
	Unmarried	10	100%
Type of Residence	Rural	3	30%
	Urban	7	70%

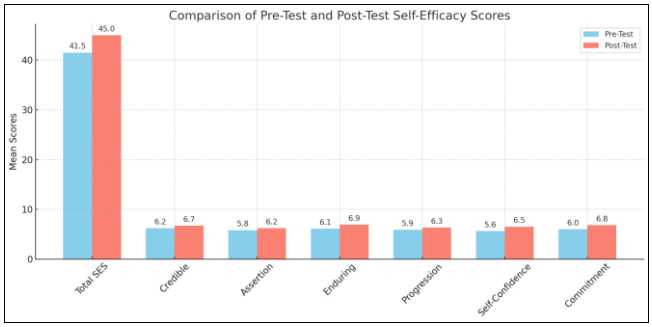
The study included a total of 10 taekwondo players aged between 18 and 28 years. A majority of the participants (60%) were in the 18–21 years age group, while the remaining 40% fell within the 22–25 years age range. There were no participants in the 25–28 years age category. In terms of gender, the sample was predominantly male (80%), with females comprising 20% of the participants. Regarding marital status, all participants were unmarried (100%).
With respect to the type of residence, 70% of the participants were from urban areas, while the remaining 30% resided in rural region

Comparison of Pre- and Post-Test Scores on Self-Efficacy and Its Dimensions (N = 10)

Variable	Pre-Test M ± SD	Post- Test M ± SD	df	t	p value
Total Self-Efficacy	41.5 ± 3.45	45.0 ± 3.901	9	2.71	0.024
Credible	6.2 ± 1.03	6.7 ± 1.01	9	1.92	0.089
Assertion	5.8 ± 1.12	6.2 ± 1.05	9	1.56	0.152
Enduring	6.1 ± 1.00	6.9 ± 0.94	9	2.48	0.036
Progression	5.9 ± 1.07	6.3 ± 1.01	9	1.43	0.187
Self Confidence	5.6 ± 1.10	6.5 ± 1.08	9	2.10	0.065
Commitment	6.0 ± 0.98	6.8 ± 0.92	9	2.97	0.016

*p < .05 = statistically significant

Significant improvements were observed in Total Self-Efficacy, Enduring, and Commitment. Credible, Assertion, Progression, and Self-Confidence showed non-significant changes post-intervention, though trends suggest potential for improvement.



Discussion

The present study aimed to explore the impact of a yogic intervention on self-efficacy levels among taekwondo players aged 18–28 years using a pretest-posttest single-group design. The results provide compelling evidence that yoga practice can serve as an effective tool to enhance self-efficacy among athletes, particularly in disciplines like taekwondo that demand both mental resilience and physical control.
Following the intervention, participants exhibited a significant improvement in Total Self-Efficacy, suggesting that yoga may enhance an athlete's overall belief in their capability to perform and overcome challenges. Substantial gains were also observed in the dimensions of Enduring and Commitment, both critical psychological traits that contribute to sustained effort, perseverance, and goal-directed behavior in competitive sports.
While some sub-domains such as Credible, Assertion, and Progression did not show statistically significant improvements, the post-test mean scores still reflected positive trends. This may indicate that these domains are more resistant to short-term change, or that a longer intervention period might be necessary to yield measurable differences. It's also possible that individual variation in responsiveness to yoga may have influenced the outcomes.
The findings align with previous research suggesting that mind-body practices such as yoga can improve not only physical balance and flexibility but also psychological traits like confidence, self-regulation, and emotional resilience (Noggle *et al*., 2012) [12]; (Woodyard, 2011) [13]. Yoga's emphasis on breath control, mindfulness, and introspective awareness may have contributed to these outcomes by reducing stress and promoting a sense of self-mastery among participants.
Furthermore, the improvement in self-efficacy scores reflects the potential of yoga as a complementary psychological strategy in sports training. As Bandura (1997) highlighted, self-efficacy significantly influences an individual's motivation, effort, and persistence in achieving goals—factors that are especially relevant in a physically demanding sport like taekwondo.

Limitation

The study was conducted on a limited sample of 10 participants, which reduces the statistical power and limits the generalizability of the findings to the broader population of taekwondo players.

A single-group pretest-posttest design was used without a control group for comparison. This makes it difficult to conclusively attribute improvements in self-efficacy solely to the yogic intervention, as changes may also be influenced by external or internal uncontrolled variables (e.g., practice effect, motivation).

If the intervention period was brief (e.g., a few weeks), it may not be sufficient to observe long-term changes in self-efficacy. Additionally, the study lacks follow-up to assess whether improvements were sustained over time.

Conclusion

The findings of the present study provide encouraging evidence that yogic intervention can positively enhance self-efficacy among taekwondo players. Notably, participants demonstrated meaningful improvements in overall self-efficacy, with statistically significant gains observed in the domains of enduring and commitment—key qualities essential for sustained athletic performance and mental resilience.

Although some sub-dimensions did not show statistically significant changes, positive trends were evident, indicating that yoga has the potential to foster holistic psychological growth when integrated into sports training programs. The intervention was well-received and showed beneficial effects even within a small sample and short timeframe, highlighting yoga's promise as a complementary practice for athletes.

This study contributes to the growing body of literature supporting the integration of mind-body practices in sports. With further research using larger, controlled samples, the role of yoga in enhancing psychological readiness, motivation, and performance in combat sports like taekwondo can be more fully established. Overall, the results underscore the value of yoga as a practical, accessible, and effective tool for boosting self-efficacy in athletes.

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