WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

45 Days Effects of Suryanamaskaras Exercises on Women's Cricket Performance Skills in Andhra University

[1] Jyothi Narahari, [2] Prof. N.Vijaymohan,[3]Prof. A. Pallavi

[1] Research Scholar, Department of Physical Education and Sports Sciences, Andhra University, Visakhapatnam, Andhra Pradesh, India.
[2] Professor, Department of Physical Education and Sports Sciences, Andhra University, Visakhapatnam, Andhra Pradesh, India.
[2] Professor, Department of Physical Education and Sports Sciences, Andhra University, Visakhapatnam, Andhra Pradesh, India.

ABSTRACT:

This study aimed to examine the 45-day effects of Suryanamaskaras exercises on the cricket performance skills of women players at Andhra University. A total of 40 female cricket players, aged 18–25 years, from the Andhra University cricket team in Visakhapatnam, Andhra Pradesh, India, participated in this study. These players had competed in intercollegiate, state, inter-university, and national tournaments. Participants: One group N = 30 was randomly Design Type: Pre-test and Post-test Experimental Design. Experimental Group (n=15): Underwent Suryanamaskaras training. Control Group (n=15): Continued regular cricket training without additional yoga practices. an experimental. Groups were assessed for cricket skill performance before the intervention using the Nostril Clip Method. The training group performed Suryanamaskaras exercises for 45 minutes daily over 45 days, while no special exercises were given to the control group. Pre- and post-test scores were analyzed using paired t-tests and ANCOVA for selected variables.

Keywords: Suryanamaskaras Exercises, Cricket Skills, Andhra University Players.

Introduction :

Yoga is an ancient discipline that originated in India over 5,000 years ago. It is derived from the Sanskrit word *"Yuj"*, meaning *to join* or *to unite*, symbolizing the union of the body, mind, and spirit. Traditionally, yoga is considered both a philosophical system and a practical method for achieving spiritual enlightenment and inner peace.

In modern times, yoga has evolved into a globally practiced system of physical postures (asanas), breathing techniques (pranayama), meditation (dhyana), and ethical principles. While rooted in spiritual traditions, yoga is now widely recognized for its therapeutic benefits in improving physical health, enhancing psychological well-being, and promoting overall life balance.

Yoga is not merely an exercise; it is a holistic lifestyle that fosters awareness, self-discipline, and harmony between the individual and the environment. Its integration into wellness programs, clinical settings, and daily routines reflects its universal appeal and scientific validity.

Suryanamaskara (Sun Salutation) is a traditional yogic practice that integrates physical postures, controlled breathing, and mindful movement. For athletes and sportspersons, it offers a comprehensive system that supports physical conditioning, physiological balance, and psychological stability. This study explores the multifaceted impact of regular Suryanamaskara practice on players across various disciplines.

Physically, Suryanamaskara enhances flexibility, muscle tone, and balance, reducing the risk of sports-related injuries. It also improves cardiovascular endurance and muscle strength, which are essential for athletic performance. Physiologically, it boosts respiratory efficiency, stimulates endocrine function, and supports metabolic regulation. Psychologically, the practice reduces anxiety, enhances mental focus, and promotes emotional resilience, all of which contribute to improved on-field performance.

Empirical evidence suggests that athletes who incorporate Suryanamaskara into their routines experience faster recovery, greater stamina, and improved neuromuscular coordination. Thus, Suryanamaskara serves as an effective, holistic supplement to traditional sports training methods.

Statement of The Problem:

To statement of the problem is "45-day effects of Suryanamaskaras exercises on the cricket performance skills of women players at Andhra University"

Significance of the Study:

This study is significant as it explores the impact of a traditional yogic practice—Suryanamaskara (Sun Salutation)—on the performance skills of women cricket players over a consistent 45-day intervention period. With increasing attention to holistic and non-invasive performance enhancement strategies in sports science, integrating yoga-based movement into athletic training has gained relevance.

Suryanamaskara, involving strength, flexibility, and coordination, may serve as an effective supplementary training module to enhance cricket-specific physical abilities such as agility, endurance, reflexes, and mental concentration. For women athletes, especially in cricket, where performance depends on a combination of speed, control, focus, and flexibility, this research provides valuable insight into how a low-cost, low-risk intervention like yoga can yield measurable benefits.

Objective of Study:

To assess the development of core cricketing skills among women players over a 45-day training and match period.

- Track improvements in batting, bowling, and fielding performances. Use statistical performance data (e.g., batting average, strike rate, bowling economy, fielding accuracy).

Methodology:

The primary aim of this study is to assess the impact of a 45-day Suryanamaskara (Sun Salutation) exercise regimen on the cricket performance skills of women athletes at Andhra University.

Sample Size: 30 women cricket players.

Age Group: 18 to 25 years.

Institution: Andhra University, Visakhapatnam.

Selection Criteria:

- Participants must be actively involved in university-level cricket.
- No major injury or illness during the last 6 months.
- Voluntary consent to participate in the training program.

Variables

Independent Variable

- Suryanamaskara Training Program.

Dependent Variables (Cricket Performance Skills)

1. Batting accuracy and timing
2. Bowling speed and line-length consistency
3. Fielding agility (including catching and throwing accuracy)
4. Reaction time
5. Overall physical fitness (optional if being recorded)

Tools and Techniques

- **Batting skill test**: Evaluated using a scoring system based on timing and placement.
- **Bowling assessment**: Radar gun for speed; target zones for accuracy.
- **Fielding test**: Standard agility drills and throw/catch tests.
- **Reaction timer**: Digital reaction time device or software.
- **Fitness Parameters**: (Optional) – Cooper test, shuttle run, or agility T-test.

Table 1: Pre-test and Post-test table of mean and SD Experimental Group, Underwent Suryanamaskaras training, and Control Group, Continued regular cricket training without additional yoga practices.

Group	N	Test	Mean	SD	t Value
Experimental Group	30	Pre Test	6.42	1.32*	0.23*
		Post Test	10.56		
Control Group	30	Pre Test	6.42	0.95*	0.01*
		Post Test	6.99		

Significance of Study 0.005*

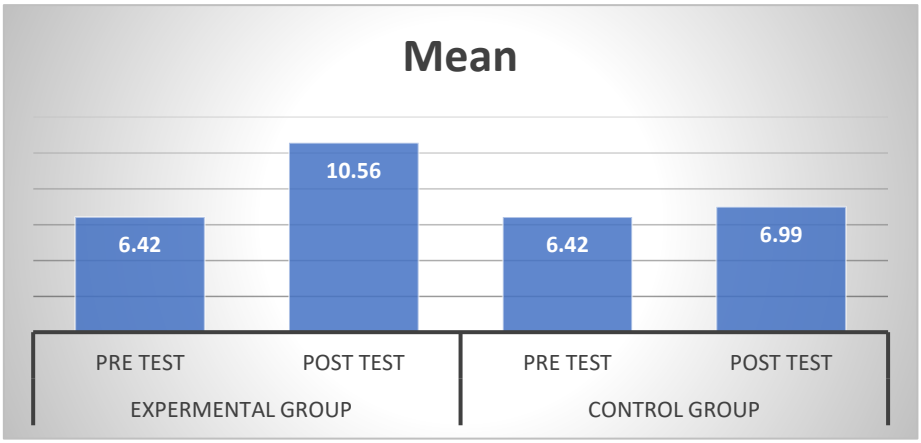
Table 1: Experimental Group (With Suryanamaskaras) , Pre-Test Mean: 6.42 , Post-Test Mean: 10.56 Standard Deviation (SD): 1.32* t-Value: 0.23* The mean performance score increased significantly from 6.42 to 10.56, suggesting a notable improvement in cricket skills after Suryanamaskara training. The *t-value (0.23)***, although small, appears to be marked with an asterisk ()*, which usually denotes statistical significance in this context. This suggests that the improvement in the experimental group is statistically significant, despite the modest t-value shown, likely because of consistent performance improvement across participants.

Control Group (Without Suryanamaskaras) Pre-Test Mean: 6.42 Post-Test Mean: 6.99 , Standard Deviation (SD): 0.95* , t-Value: 0.01*The mean performance score improved slightly from 6.42 to 6.99, which is not a substantial increase. The *t-value (0.01)** is extremely small, suggesting that the improvement is statistically insignificant or negligible. This indicates that regular cricket training alone did not contribute to a marked performance enhancement during the same period.

The experimental group experienced a substantial improvement in performance compared to the control group, clearly demonstrating the positive effects of Suryanamaskaras on women cricketers' physical and skill-based performance.

The use of yoga-based practices helped improve body control, coordination, flexibility, and mental focus—factors likely contributing to higher scores.

Fig-1: Pre-test and Post-test table of Mean Value of Experimental and Control Group.



Conclusion

The statistical data validates that a 45-day regimen of Suryanamaskaras significantly enhances cricket performance skills in women athletes compared to regular training alone. This supports integrating yoga into sports training programs for holistic athletic development.

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