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THE ANALYTICAL IMPACT OF SELECTED YOGA ON THE STRESS LEVEL OF ANDHRA PRADESH STATE U-19 VOLLEYBALL PLAYERS

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ABSTRACT

The present study aimed to examine the effect of selected yoga practices on the stress levels of U-19 volleyball players from Andhra Pradesh state. A total of 30 adolescent volleyball players (aged 16–19 years) were randomly assigned to an experimental group (yoga intervention) and a control group (no intervention). The experimental group participated in a structured yoga program, including asanas, pranayama, and meditation, conducted 45 minutes per day, five days a week, for eight weeks. Stress levels were measured before and after the intervention using the Perceived Stress Scale (PSS-10). Results indicated a significant reduction in stress levels in the experimental group, whereas the control group showed no significant changes. The study concludes that selected yoga practices are effective in reducing stress among U-19 volleyball players and can be recommended as a regular component of training programs to enhance psychological well-being and performance.

KEYWORDS: Yoga, Stress, U-19 Volleyball Players, Andhra Pradesh, Perceived Stress Scale, Adolescents.

INTRODUCTION:

Yoga, an ancient practice originating in India, has traditionally been regarded as a holistic system for physical, mental, and spiritual well-being. Classical yoga emphasizes the

integration of body, mind, and breath through practices such as asanas (postures), pranayama (breathing techniques), dhyana (meditation), and ethical principles (Yamas and Niyamas). Over centuries, yoga has been applied for health, self-realization, and lifestyle balance.

In recent decades, the concept of yoga has evolved beyond its classical framework to meet the demands of modern life, sports, and scientific exploration. This "new concept" of yoga integrates traditional principles with contemporary needs, emphasizing its applicability in areas such as stress management, athletic performance, mental health, rehabilitation, and cognitive enhancement. Unlike traditional yoga, which often focuses on spiritual growth, the new concept prioritizes measurable outcomes such as physiological adaptation, psychological resilience, flexibility, strength, and focus.

This modern approach to yoga bridges ancient wisdom with contemporary scientific understanding, making it a practical, evidence-based tool for improving physical fitness, mental health, and overall well-being. In sports and education, this new concept is particularly valuable for enhancing performance, reducing stress, and promoting holistic development in young athletes and students.

Athletes, particularly competitive players, face high levels of psychological and physiological stress due to intense training schedules, performance expectations, competition pressure, and balancing personal or academic responsibilities. Chronic stress can negatively impact concentration, decision-making, reaction time, recovery, and overall performance, making stress management a critical aspect of sports training.

Yoga, an ancient mind-body practice originating in India, has gained recognition as an effective tool for stress reduction and mental resilience in modern sports. Yoga combines physical postures (asanas), controlled breathing techniques (pranayama), and meditation (dhyana) to harmonize the body, mind, and emotions. This holistic approach not only improves physical flexibility, strength, and balance but also promotes mental calmness, emotional regulation, and focus.

Research has shown that regular yoga practice reduces cortisol levels, stabilizes the autonomic nervous system, and enhances psychological well-being among athletes. By integrating yoga into training programs, players can manage competitive stress more effectively, maintain optimal performance, and prevent burnout.

In sports like volleyball, cricket, football, and basketball, where mental alertness, quick decision-making, and sustained concentration are essential, yoga serves as a non-invasive, sustainable, and practical intervention to enhance both physical and psychological readiness.

The present study focuses on exploring the impact of selected yoga practices on the stress levels of players, aiming to provide evidence-based insights for coaches, trainers, and sports psychologists to incorporate yoga into athlete development programs.

STATEMENT OF THE PROBLEM:

A Study of "the Analytical Impact of Selected Yoga on the Stress Level of Andhra Pradesh State U-19 Volleyball Players".

OBJECTIVE OF STUDY:

The main objective of the study is to analyze the effect of selected yoga practices on the stress level of Andhra Pradesh State U-19 volleyball players. The specific objectives are:

1. To assess the baseline stress levels of U-19 volleyball players before the yoga intervention.
2. To determine the effect of selected yoga practices (asanas, pranayama, and meditation) on reducing stress among U-19 volleyball players.
3. To compare pre-test and post-test stress levels of the experimental group (yoga intervention) and the control group (no intervention).
4. To examine gender-specific responses, if any, to the yoga intervention among male and female players.
5. To provide practical recommendations for incorporating yoga into training programs for adolescent volleyball players to improve mental well-being and performance**.**

METHODOLOGY:

The study involved 30 U-19 volleyball players from Andhra Pradesh state, aged 16–19 years. The subjects were selected based on their active participation in competitive volleyball and their willingness to participate in the study. They were randomly divided into an experimental group (n = 15): Participants who received the yoga intervention. Control group (n = 15): Participants who continued regular volleyball training without yoga. All participants were free from injuries, chronic illnesses, or psychological disorders that could interfere with the study.

The study employed a pre-test and post-test control group design to examine the effect of selected yoga practices on stress levels. Stress levels were measured before (pre-test) and after (post-test) the eight-week yoga intervention.

Yoga Intervention:

The experimental group participated in a structured yoga program for 8 weeks, 5 days per week, with each session lasting 45 minutes. The program included:

1. **Asanas (Physical Postures):**

- Surya Namaskar (Sun Salutation)
- Vrikshasana (Tree Pose)
- Trikonasana (Triangle Pose)
- Bhujangasana (Cobra Pose)

2. **Pranayama (Breathing Techniques):**

- Anulom-Vilom (Alternate Nostril Breathing)
- Bhramari (Humming Bee Breath)
- Kapalabhati (Skull Shining Breath)

3. **Meditation and Relaxation:**

- Mindfulness meditation
- Guided relaxation techniques

The control group maintained its regular volleyball training program without yoga.

Measurement of Stress:

- **Tool Used:** Perceived Stress Scale (PSS-10)
- **Procedure:** Stress levels were assessed for both groups before the intervention (pre-test) and after eight weeks (post-test).
- Higher scores indicate greater perceived stress, while lower scores indicate reduced stress**.**

Table 1: Effect of Selected Yoga on Stress Levels of U-19 Volleyball Players.

Group	**Pre-Test Mean ± SD**	**Post-Test Mean ± SD**	**t-value**	**p-value**	**Significance**

Experimental (Yoga)	22.1 ± 3.4	16.0 ± 2.8	8.35	0	Significant
Control	21.8 ± 3.1	21.2 ± 3.0	1.12	0.27	Not Significant

Significance was set at $p < 0.05$.

DISCUSSION:

Experimental Group (Yoga Intervention): Pre-Test: The average stress level of the players before the yoga program was 22.1 ± 3.4, indicating moderate perceived stress. Post-Test: After 8 weeks of yoga practice, the stress level decreased to 16.0 ± 2.8, showing a notable reduction. Paired t-test: The calculated t-value of 8.35 with a p-value of 0.000 indicates that the stress reduction was statistically significant at $p < 0.05$. Interpretation: The significant decrease suggests that selected yoga practices, including asanas, pranayama, and meditation, effectively reduced perceived stress among U-19 volleyball players.

Control Group (No Yoga Intervention): Pre-Test: The mean stress level was 21.8 ± 3.1, similar to the experimental group at baseline. Post-Test: After 8 weeks of regular volleyball training without yoga, the stress level slightly decreased to 21.2 ± 3.0. Paired t-test: The t-value of 1.12 with a p-value of 0.27 indicates no statistically significant change. Interpretation: Since the control group did not participate in yoga, the minimal change in stress level suggests that regular volleyball training alone did not significantly reduce stress in adolescent players.

CONCLUSION:

The present study investigated the analytical impact of selected yoga practices on the stress levels of Andhra Pradesh State U-19 volleyball players. A total of 30 players participated, with 15 in the experimental group (yoga intervention) and 15 in the control group. The findings indicate:

1. The experimental group showed a significant reduction in perceived stress levels after 8 weeks of yoga practice, as evidenced by the decrease in Perceived Stress Scale (PSS-10) scores from 22.1 ± 3.4 to 16.0 ± 2.8.
2. The control group, which did not participate in yoga, showed no significant change in stress levels, confirming that regular volleyball training alone was insufficient for meaningful stress reduction.

3. Selected yoga practices, including asanas, pranayama, and meditation, were effective in enhancing mental relaxation, emotional regulation, and psychological resilience among adolescent volleyball players.
4. The results highlight that yoga can serve as a practical, non-invasive, and evidence-based tool for stress management in competitive sports settings.

Integrating selected yoga practices into the training regimen of U-19 volleyball players from Andhra Pradesh state significantly reduces stress levels, improves mental well-being, and may contribute to better athletic performance. Coaches, trainers, and sports psychologists are encouraged to adopt yoga as a complementary intervention to traditional training programs for adolescent athletes.

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