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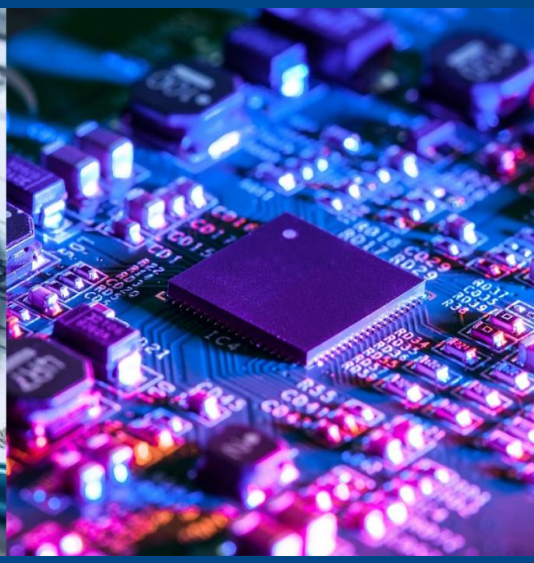

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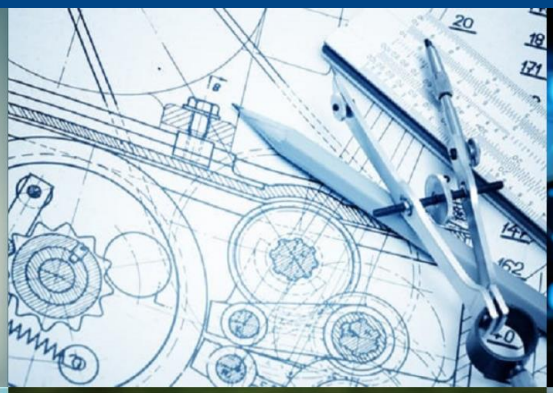

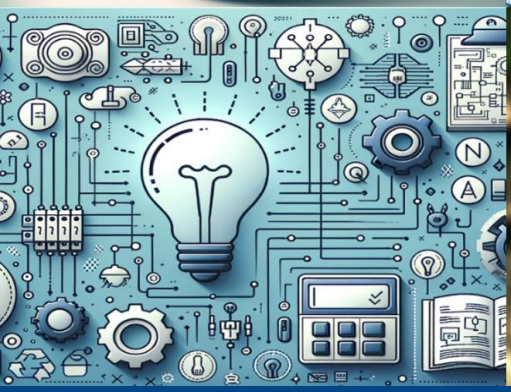

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Effect of Selected Yogic Practices on Abdominal Strength of Male Kabaddi Players of Assam

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ABSTRACT: This study examines the "Effect of selected yogic practices on abdominal strength of male Kabaddi players of Assam". This is an experimental pre-post study, for this study total 30 male kabaddi players aged 18-25 years from Tinsukia Kabaddi Association, Assam. All the subjects were given total 6 weeks of Yoga training on Abdominal Strength. 45 minutes for the first two weeks and for the next four weeks the training program increased to 50 minutes. The data were collected in two phases i.e., pre-test and post-test. All the data were collected by using Plank test, t- test was used as statistical tool for analysing the data. The result of the study revealed that there was significant improvement observed in abdominal strength of male kabaddi players.

KEYWORDS: Yoga, Abdominal Strength, Kabaddi players and Assam.

I. INTRODUCTION

Yoga is an ancient Indian philosophy and holistic practice that originated more than 5,000 years ago. The term Yoga is derived from the Sanskrit word "yuj," which means to unite or to join, symbolizing the integration and harmony of the body, mind, and spirit. The earliest references to yoga can be found in ancient Indian scriptures such as the Rigveda, where practices related to meditation and spiritual discipline were mentioned. Over time, the philosophical and practical aspects of yoga were systematically organized by Maharishi Patanjali in the Yoga Sutras, which remain one of the most important classical texts of yoga philosophy. Patanjali described yoga as a scientific method for achieving mental control and spiritual enlightenment.

Yoga evolved through several religious and philosophical traditions in India, including Hinduism, Jainism, and Buddhism, each contributing to the development of yogic practices and principles. Traditionally, yoga was practiced as a path toward moksha (liberation), aiming to free the individual from suffering and the cycle of birth and rebirth. The classical system of yoga described by Patanjali consists of the eight limbs of yoga (Ashtanga Yoga), which include ethical guidelines (yama), personal discipline (niyama), physical postures (asanas), breathing techniques (pranayama), withdrawal of senses (pratyahara), concentration (dharana), meditation (dhyana), and ultimately spiritual absorption (samadhi). These practices collectively promote self-awareness, mental discipline, and spiritual growth.

In addition to its spiritual objectives, yoga has also been widely recognized for its physical and psychological benefits. The practice of asanas improves flexibility, muscular strength, posture, and balance, while pranayama enhances respiratory efficiency and helps regulate the nervous system. Meditation practices contribute to improved mental clarity, emotional stability, and stress management. Because of these benefits, yoga is now widely used as a therapeutic and preventive approach to maintain overall health and well-being.

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Traditional yoga placed a strong emphasis on inner transformation, self-realization, and detachment from material desires. However, in modern times, yoga has evolved into various forms that focus more on physical fitness and wellness. Modern yoga styles, particularly those derived from Hatha Yoga traditions described in classical texts such as the Hatha Yoga Pradipika, emphasize posture-based practice aimed at improving flexibility, strength, and relaxation. The global popularity of yoga increased significantly during the late nineteenth and early twentieth centuries through the efforts of influential spiritual teachers such as Swami Vivekananda, who introduced yoga philosophy to the Western world, and Paramahansa Yogananda, who popularized yogic meditation and spiritual practices internationally.

Today, yoga is practiced worldwide not only as a spiritual discipline but also as a comprehensive health practice that enhances physical fitness, mental well-being, and emotional balance. It is increasingly integrated into physical education programs, rehabilitation settings, and stress management interventions.

Abdominal strength, on the other hand, refers to the capacity of the core muscles to generate and sustain force during physical activity. The abdominal region consists primarily of muscles such as the rectus abdominis, transverse abdominis, and internal and external obliques, which play a crucial role in stabilizing the trunk and supporting body movements. These muscles work in coordination with other important stabilizing structures including the diaphragm, pelvic floor muscles, and spinal stabilizers. Strong abdominal muscles are essential for maintaining proper posture, enhancing balance, preventing injuries, and supporting efficient movement patterns in daily activities as well as in sports and physical exercises.

Developing abdominal strength is particularly important because the core muscles act as the central link between the upper and lower body, enabling effective transfer of force during movements such as running, jumping, bending, and lifting. Weak abdominal muscles may lead to poor posture, lower back pain, and reduced physical performance. Therefore, exercises and practices that strengthen the abdominal region are essential for improving overall functional fitness.

Yoga practices, especially specific asanas that engage and activate the core muscles, play an important role in strengthening the abdominal region. Postures such as Navasana (Boat Pose), Phalakasana (Plank Pose), and Bhujangasana (Cobra Pose) require sustained contraction of the abdominal muscles and help improve muscular endurance and stability. Through regular practice, yoga not only enhances abdominal strength but also improves body awareness, coordination, and overall physical efficiency.

II. RESEARCH METHODOLOGY

The study utilized an experimental pre-post type design, where the researcher conveniently selected 30 male kabaddi players aged 18-25 years from Assam. The pre-test data were collected before delivering the 6 weeks training programme and a post-test was conducted after completion of training programme. The sample was collected based on the inclusion and exclusion criteria, and convenient sampling was used for better representation of the whole population. The variables of the study were abdominal strength and the data was collected using plank test. The data was analysed by using t-tests.

TRAINING SCHEDULE

Week	Activities	Duration
Week 1 – Week 2	Warm Up: Opening Prayer, Deep Breathing, Loosening Exercises	10 minutes
	Main Part – Asanas: Tadasana, Navasana, Bhujangasana, Setu Bandhasana, Dandasana, Parivetta Trikonasana, Utkatasana, Utthita Vasisthasana, Ashtanga Namaskara	25 minutes
	Pranayamas: Anulom Vilom Pranayama, Nadi Shodhana Pranayama, Kapalbhati Pranayama	10 minutes
	Cooling Down: Guided Meditation, Shavasana / Pawanmuktasana, Closing Prayer	5 minutes

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Week	Activities	Duration
	Total Duration	**50 minutes**
Week 3 – Week 6	Warm Up: Opening Prayer, Deep Breathing, Surya Namaskar	10 minutes
	Main Part – Asanas: Purvottanasana, Ardha Chandrasana, Utthita Parshvakonasana, Sarvangasana, Kukkutasana, Virabhadrasana, Chaturanga Dandasana, Salabhasana, Natrajasana	30 minutes
	Pranayamas: Ujjayi Pranayama, Bhastrika Pranayama, Shitali	10 minutes
	Cooling Down: Guided Meditation, Shavasana / Makrasana, Closing Prayer	10 minutes
	Total Duration	**60 minutes**

Table No.1

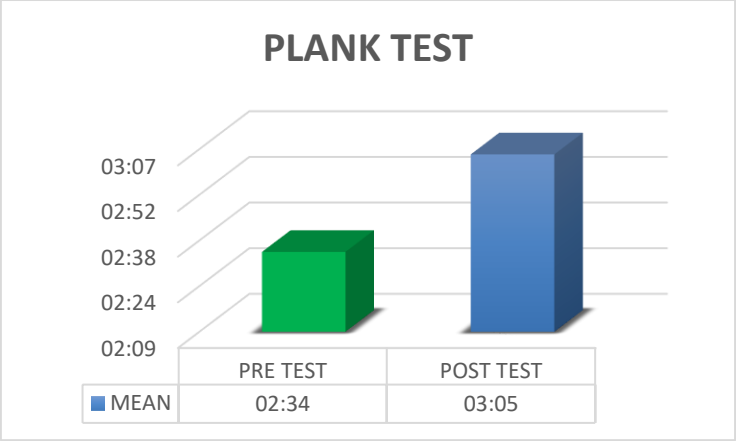
Comparison of Plank Test scores during pre-test and post-test

Test	N	Mean	DF	Cal.'t'	Tab 't'
Pre-test	30	02:34	29	2.011	1.699
Post-test	30	03:05			

Table No. 1 : The above table shows the comparison between the pre-test and post-test mean scores of the subjects. A total of 30 subjects participated in the study, therefore the degree of freedom (DF) is 29. The mean value of the pre-test was 2.34, while the mean value of the post-test increased to 3.05, which indicates improvement in the performance of the subjects after the training programme. The calculated 't' value is 2.011, which is greater than the tabulated 't' value of 1.699 at the 0.05 level of significance. Since the calculated value is higher than the table value, the result is considered statistically significant. Hence, it can be concluded that the training programme had a significant effect on the subjects, showing improvement from the pre-test to the post-test.

Figure – 1

Showing the mean of Plank Test score during pre-test and post-test



Graph No. 1 Graphical representation of mean of pre and post test of plank

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III. DISCUSSION

The purpose of the present study was to examine the effect of selected yogic practices on abdominal strength of male Kabaddi players of Assam. The results of the study revealed that there was a significant improvement in abdominal strength of the subjects after the yogic training programme. This improvement may be attributed to the regular practice of yogic asanas that involve contraction, stabilization, and endurance of the abdominal and core muscles.Kabaddi is a physically demanding sport that requires high levels of core stability, balance, agility, and muscular endurance, particularly in the abdominal region. Strong abdominal muscles help players maintain body control during raiding, dodging, and tackling actions. Yogic practices such as Navasana, Bhujangasana, Dhanurasana, and plank-based postures engage the abdominal muscles and improve muscular endurance and stability of the trunk.

The findings of the present study are supported by several previous research studies. A study reported that yogic practices significantly enhance muscular strength, flexibility, and overall physical fitness, which contributes to better performance and health outcomes.

Similarly, another study investigating Hatha yoga training found that a structured yoga programme significantly improved trunk muscle endurance and stability after the intervention period, indicating that yoga plays an important role in strengthening the core muscles.

Further research examining core muscle activation during yoga postures reported that poses such as high plank, low plank, and other stability-based asanas effectively activate abdominal and trunk muscles, making them useful exercises for strengthening the core region.

In another experimental study focusing on yogic balancing asanas, participants who practiced yoga for several weeks showed significant improvement in core strength compared to the control group, demonstrating the effectiveness of yoga-based training programmes in enhancing abdominal and trunk muscle strength.

These findings clearly support the results of the present investigation, indicating that regular yogic practice positively influences abdominal strength and core stability. Since yoga involves controlled movements, isometric muscle contractions, and sustained postures, it helps improve muscular endurance and neuromuscular coordination of the abdominal region.

Therefore, it can be concluded that selected yogic practices are an effective training method for improving abdominal strength among Kabaddi players, which may further contribute to better performance and reduced risk of injury during sports activities.

IV. CONCLUSION

Within the various limitations, the following conclusions was noted down: The result of the study had exclusively shown that there was a significant effect of the six weeks of Yoga training program on the abdominal strength of male Kabaddi players of Assam as the calculated ‘t’ was greater than the tabulated ‘t’

i.e., 2.011 > 1.699 . In conclusion, this study has demonstrated that Yoga can significantly improve the abdominal strength of male kabaddi players of Assam. Therefore, it is recommended that such programs should be performed in a regular basis for enhancement of health and to achieve a better life.

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