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ANALYSIS OF YOGIC PRACTICES AND PHYSICAL EXERCISE ON ANTHROPOMETRIC PARAMETER AMONG COLLEGE LEVEL WOMEN KABADDI PLAYERS

Mrs. M Kamakshi [1] ,Prof. G.Sarah Sarojini[2]

[*] Research Scholar, Department of Physical Education, SPMVV, Tirupati

[**] Research Supervisor, and Head, Department of Physical Education, SPMVV, Tirupati.

ABSTRACT :

Kabaddi, a dynamic and physically demanding sport, requires players to exhibit agility, strength, endurance, and coordination. To excel in the sport, athletes engage in various training regimens that improve their physical fitness and enhance their performance. Among the different training methods, *Yogic practices* and *physical exercises* play a significant role in shaping the body composition and physical endurance of Kabaddi players. Anthropometric parameters, such as body mass index (BMI), body fat percentage, lean body mass, and muscle girth, are key indicators that reflect the physical fitness and overall health of an individual. These parameters not only provide insights into an athlete's physical condition but also help in tailoring specific training and dietary plans for optimal performance. Yogic practices, which include a combination of physical postures (asanas), breathing exercises (pranayama), and meditation, are known to offer numerous health benefits, including improved flexibility, balance, strength, and mental focus. Regular yoga practice can also enhance recovery, reduce fatigue, and promote emotional stability, which are crucial for athletes who require sustained physical and mental energy during competitive sports like Kabaddi. The purpose of the study was to analysis of yogic practices and physical exercise on anthropometric parameter among college level women kabaddi players. Sixty Women kabaddi players from Tirupati district, Andhra Pradesh were selected for this study and they were given yoga and Physical training. Pretest was conducted for the subjects in the selected anthropometric variables. After twelve weeks of yoga and physical exercise training post test data were collected for the variables. The collected data before and after training period of 12 weeks on the above said variables due to the influence of yoga and physical exercise training was statistically analyzed with 't' test to find out the significant improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. ($P < 0.05$). The data was analyzed by using the software SPSS. Practice of the yoga training and physical exercise training was significant effective in bring desirable changes in anthropometric variables such as arm and thigh circumference among College level women kabaddi players.

Key words: Yoga training, Physical training and arm and thigh circumference

Introduction :

Kabaddi, a dynamic and physically demanding sport, requires players to exhibit agility, strength, endurance, and coordination. To excel in the sport, athletes engage in various training regimens that improve their physical fitness and enhance their performance. Among the different training methods, *Yogic practices* and *physical exercises* play a significant role in shaping the body composition and physical endurance of Kabaddi players. Anthropometric parameters, such as body mass index (BMI), body fat percentage, lean body mass, and muscle girth, are key indicators that reflect the physical fitness and overall health of an individual. These parameters not only provide insights into an athlete's physical condition but also help in tailoring specific training and dietary plans for optimal performance. Yogic practices, which include a combination of physical postures (asanas), breathing exercises (pranayama), and meditation, are known to offer numerous health benefits, including improved flexibility, balance, strength, and mental focus. Regular yoga practice can also enhance recovery, reduce fatigue, and promote emotional stability, which are crucial for athletes who require sustained physical and mental energy during competitive sports like Kabaddi. On the other hand, traditional physical exercises, such as strength training, cardiovascular workouts, and sport-specific drills, focus on developing muscle strength, power, speed, and endurance. These exercises directly contribute to improving the performance of Kabaddi players by building the necessary physical attributes required for the sport. The impact of both Yogic practices and physical exercise on anthropometric parameters has been the subject of numerous studies. However, there remains a need for focused research that explores how these two approaches, either independently or in combination, affect Kabaddi players. By analyzing the anthropometric parameters before and after a structured training regimen involving both yoga and physical exercises, this study aims to provide a comprehensive understanding of how these practices influence the physical conditioning and performance of Kabaddi players

Methodology :

To achieve this purpose of the study, Sixty (N=60) women kabaddi players who were selected in Tirupati district, Andra Paradesh, players were randomly selected as subjects. Their age ranged from 18 to 25 years. The subjects were divided at into three groups of Twenty in each (N=20). Group-I yoga training, Group-II physical exercise training and Group –III was act as the Control group. The experimental group namely yoga training and

physical exercise training Group underwent their respective training programmes for three sessions (days) per week for eight weeks. And Group-III acted as control group in which they did not undergo any special training programme apart from their regular programme.

Training Programme

The subjects underwent their respective training programme as per schedules under the supervision of researcher who provided motivation, advice and encouragement to the subjects. Each day the training schedule was conducted for experimental groups only in the morning session. That lasted for sixty minutes. Prior and after every training session subjects of experimental groups had ten minutes of warm up and ten minutes of warm down exercises**.**

Statistical Technique

The collected data before and after training period of 12 weeks on the above said variables due to the influence of yoga and physical exercise training was statistically analyzed with 't' test to find out the significant improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. (P <0.05).

TABLE -1

COMPUTATION OF 't' RATIO BETWEEN PRE AND POST TEST MEANS OF EXPERIMENTAL GROUP AND CONTROL GROUP ON ARM AND THIGH CIRCMFRENCE

Group	*Variable*	*Pretest (cm)*	*Posttest (cm)*	*Mean Difference (MD)*	*'t' Ratio*
Control Group	Arm Circumference	15.21	15.12	0.09	0.39
	Thigh Circumference	26.53	26.62	0.09	1.40
Yoga Training Group	Arm Circumference	15.35	11.95	3.4	16.40*
	Thigh Circumference	26.30	23.91	2.39	16.72*
Physical Exercise Training Group	Arm Circumference	15.03	12.67	2.36	14.88*
	Thigh Circumference	26.78	22.91	3.87	13.78*

***Significantat0.05 level (2.09)**

The data presented in the table -1 reflects the anthropometric changes, specifically in arm and thigh circumferences, among three different groups: the Control Group, Yoga Training Group, and Physical Exercise Training Group, based on pretest and posttest measurements. The Control Group showed negligible changes in both arm and thigh circumferences. The pretest arm circumference was 15.21 cm, and the posttest value was 15.12 cm, resulting in a minimal reduction of 0.09 cm. The corresponding 't' ratio of 0.39 indicated that this change was statistically insignificant. Similarly, the pretest thigh circumference of 26.53 cm only slightly increased to 26.62 cm in the posttest, with a mean difference of 0.09 cm and a 't' ratio of 1.40, again suggesting no significant effect from the intervention in this group. In contrast, the Yoga Training Group demonstrated significant changes. The pretest arm circumference for this group was 15.35 cm, which dropped substantially to 11.95 cm in the posttest, showing a decrease of 3.4 cm. The 't' ratio of 16.40* indicated a highly significant reduction in arm circumference, reflecting the positive influence of yoga practice. Similarly, the thigh circumference reduced from 26.30 cm to 23.91 cm, with a mean difference of 2.39 cm and a 't' ratio of 16.72*, further demonstrating the significant impact of yoga on body composition.

The Physical Exercise Training Group also experienced significant reductions in both arm and thigh circumferences. The pretest arm circumference of 15.03 cm decreased to 12.67 cm posttest, with a mean difference of 2.36 cm and a 't' ratio of 14.88*, indicating a significant effect. Additionally, the pretest thigh circumference was 26.78 cm, which reduced to 22.91 cm posttest, showing a decrease of 3.87 cm. The 't' ratio of 13.78* also confirmed the statistically significant reduction in thigh circumference after physical exercise training.

BAR DIAGRAM BETWEEN PRE AND POST TEST MEANS OF EXPERIMENTAL GROUP AND CONTROL GROUP ON ARM AND THIGH CIRCMFRENCE

Figure -1

Arm Circumference

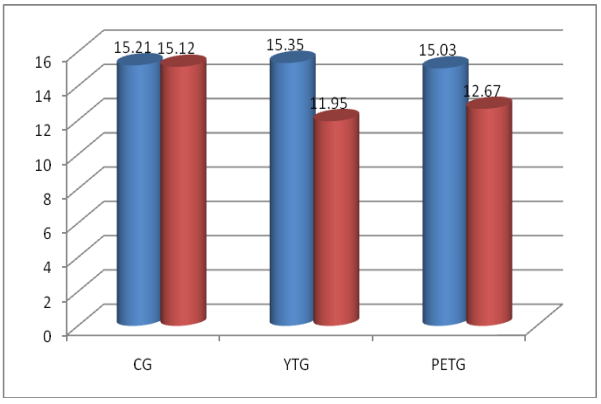
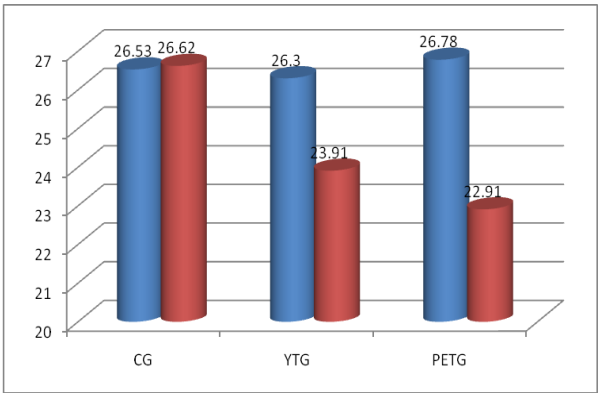


Figure -2

Thigh Circumference



Conclusion :

The findings of this study indicate that both Yoga and Physical Exercise Training have a significant impact on anthropometric parameters, specifically arm and thigh circumferences, among Kabaddi players. The Yoga Training Group demonstrated the most pronounced reductions in both arm and thigh circumferences, highlighting the effectiveness of yoga in improving body composition and potentially enhancing athletic performance. Similarly, the Physical Exercise Training Group also experienced significant reductions, though the changes were slightly less dramatic compared to the Yoga Training Group.

In contrast, the Control Group, which did not undergo any specific training intervention, showed minimal changes in anthropometric measurements, confirming that structured physical training is essential for achieving meaningful improvements in body composition.

Overall, the study suggests that both yoga and physical exercise training are beneficial for improving body measurements in Kabaddi players, with yoga particularly showing a greater influence on reducing arm circumference. This emphasizes the importance of incorporating both physical exercise and holistic practices like yoga to enhance athletic performance and physical conditioning.

Recommendations :

Based on the findings of this study, it is recommended that Kabaddi players integrate ***yoga*** into their regular training schedules. The significant reduction in arm and thigh circumferences observed in the Yoga Training Group highlights the benefits of yoga in improving flexibility, mental focus, and muscle recovery, all essential for Kabaddi performance. Additionally, a ***balanced training approach*** combining both ***yoga*** and ***physical exercises*** (like strength training, cardio, and sport-specific drills) should be adopted for optimal physical conditioning. ***Continuous monitoring*** of anthropometric parameters, such as arm and thigh circumferences, is essential for tracking progress and customizing training plans to address specific needs. Moreover, Kabaddi players should focus on ***holistic training***, emphasizing both physical strength and mental well-being. Incorporating yoga's physical postures, breathing exercises, and meditation can reduce stress, improve mental clarity, and boost performance on the field. Finally, future research should explore the ***long-term effects*** of combining yoga and physical exercise training on athletic performance, offering deeper insights into their impact across different sports.

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