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Effect of Yoga Asanas on Flexibility among Taekwondo Players in India

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ABSTRACT. The purpose of the present study was to investigate the effect of yoga asanas on flexibility among taekwondo players. Thirty (30) male taekwondo players who participated in the state-level competition were selected randomly from Tamil Nadu, India. The subject's age ranges from 18 to 25 years. The selected subjects were divided into two equal groups consisting of 15 subjects-the experimental and control groups. The experimental group underwent yoga asanas for ten weeks. The control group did not take part in any training during the course of the study. Flexibility was taken as a criterion variable in this study. The selected subjects were tested on flexibility and were measured through sit and reach tests. A pre-test was taken before the training period, and a post-test was measured immediately after the ten-week training period. Statistical technique t-ratio was used to analyze the means of the pre-test and post-test data of the experimental and control groups. The results revealed a significant difference found in the criterion variable. The difference is found due to combined yoga asanas given to the experimental group on flexibility when compared to the control group.

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INTRODUCTION

Flexibility is one of the important fitness components. It is the ability to move our body and joints at a full range of motion. In every sport, players need to have a flexible body in order to perform excellently. Having a good flexible body in sports has numerous benefits. It helps increase performance, prevents injury, improves posture, and many more. According to Rai and Yoga (2019), sports have turned into a vital part of our way of life. It is being impacted and generally impacts our social establishments, including training, financial aspects, expressions, governmental issues, law, mass correspondence, and surprisingly global discretion. Physical education has been observed to have a significant role in the sports world as it helps to improve performance and become successful in sports (Alaguraja and Yoga, 2019). In Taekwondo, an athlete needs to execute various kicks and postures during the competition time. This game demands a high level of flexibility to perform those kicks and stances efficiently. Taekwondo is a traditional martial art that was first introduced in Korea (Rai et al., 2020). It is a practice that displays methods of improving our souls and life by preparing our bodies and brain. Yoga is an ancient and systematic practice of physical poses and deep breathing, which usually focuses on harmonizing body and mind. Practicing yoga asana regularly has several numerous health benefits, including improvement in flexibility. Das et al. (2020) stated that yoga assists in building muscular strength, coordination, and balance which is required in every field of sports. Yoga can be practiced anywhere, wherever you feel comfortable (Rai and Yoga, 2021). As these practices include a lot of poses that might seem easy, but it needs lots of strength in doing so. These poses help build muscles and also contribute a lot to losing weight (Rai and Yoga, 2021). This study aims to find out the effect of yoga asanas on flexibility among taekwondo players.

METHODOLOGY

Thirty taekwondo men who participated at the state level were selected as subjects at random. The age of the subjects ranged from 18 to 25 years. The selected subjects were divided into two equal groups of fifteen subjects each, such as a yoga practice group (Experimental Group) and a control group. The experimental group was assigned to yoga practices five days per week for ten weeks. On the other side, the control group did not participate in any yoga practice besides their regular physical activities as per their curriculum. Flexibility was selected as a criterion variable. All the subjects of the two groups were tested on the selected criterion variable. Flexibility was measured through sit and reach test method prior to and immediately after the training program.

The t-test was used to examine the significant differences if any, the difference between the groups, respectively. The 0.05 level of confidence was fixed to test the level of significance that was considered appropriate. The significance of the difference among the means of the experimental group was found by a pre-test. The data were examined, and the dependent ‘t-test was used with 0.05 levels as confidence.

RESULTS AND DISCUSSIONS

Table 1 indicates that the mean values of the pre-test and post-test of the control group on flexibility were 42.62 and 42.60, respectively. The obtained t-ratio was 1.88. Since the obtained t-ratio was less than the required table value of 2.14 for the significance at the 0.05 level with 14 degrees of freedom, it was statistically insignificant. The mean values of the pre-test and post-test of the experimental group on flexibility were 42.54 and 44.66, respectively. The obtained t-ratio was 10.54*. Since the obtained t-ratio was greater than the required table value of 2.14 for significance at a 0.05 level with 14 degrees of freedom, it was statistically significant. The result of the study showed that there was a significant difference between the control group and the experimental group in flexibility. It may be concluded from the study result that the experimental group improved in flexibility due to ten weeks of yoga practice.

Table 1. Analysis of t-ratio for the pre and post-tests of the experimental and control group on flexibility (Scores count in cm).

Variables	Group	Mean		Standard Deviation		Sd Error		Degree of freedom	t-ratio
		Pre	Post	Pre	Post	Pre	Post		
Flexibility	Control Group	42.62	42.60	1.58	1.58	0.41	0.40	14	1.88
	Experimental Group	42.54	44.66	1.52	1.59	0.39	0.41	14	10.54*

*Significance at 0.05 level of confidence. Sd = Standard Deviation

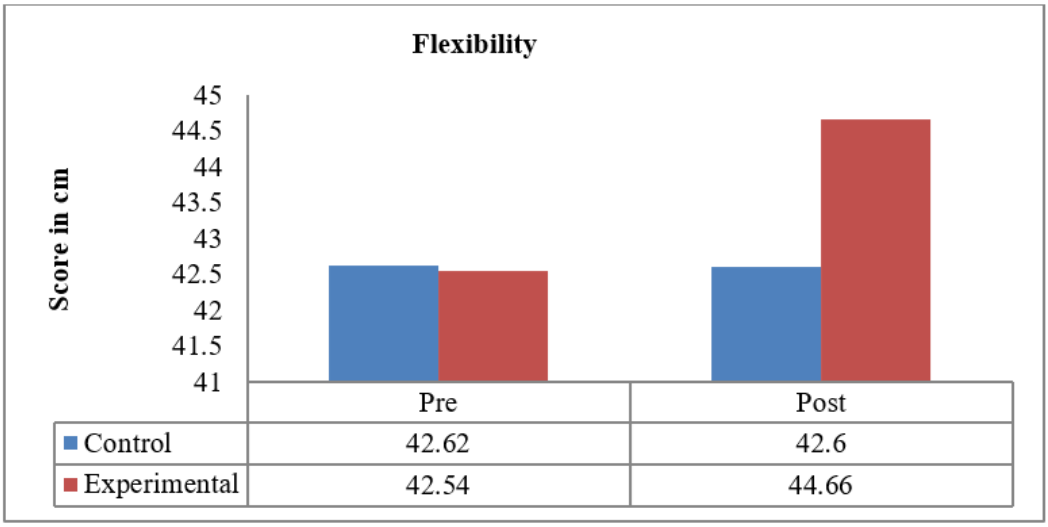

Figure 1. Pre- and post-mean values of the experimental and control group on flexibility.

Flexibility is a vital component of every athlete's fitness, and it has a significant impact on their performance. Our major goal in this study was to see if yoga had any extra effect on the flexibility of taekwondo players despite their normal forms of training. Based on the results, we found that after ten weeks of yoga training, there was a significant difference between the yoga practice group and the control group on flexibility. The experimental group reveals remarkable improvement in flexibility when compared to the control group. It is also found that the improvement is caused by yoga practices when compared to the control group. In our study, we found similar findings to those in other studies (Amin and Goodman 2014; Polsgrove et al., 2016; Alaguraja and Yoga 2017; Selvakumar and Yoga 2019). Similarly, six weeks of the quasi-experimental study conducted by Iftekher et al. (2017), analyzed the effect of yoga on flexibility and balance among shooting trainee athletes. In their study, significant improvement was noted in the subjects who participated in yoga practice.

CONCLUSION

Yoga is beneficial for all ages (Das and Yoga 2019). As a result of our findings, we can conclude that practicing yoga can improve flexibility among taekwondo players. We studied mainly state-level taekwondo players. We would have had different results if we had included adult sports persons. However, our study provided a platform for future research, overcoming the limitations revealed in this project (such as time,

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sample size, and age group). The result of the study suggests that ten weeks of yoga practice can be useful in improving the flexibility of taekwondo players.

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