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A comparative analysis of flexibility between Wushu and Taekwondo players

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Abstract

The purpose of the study was to find out the comparative analysis of flexibility between inter-college level Wushu and Taekwondo players. The study has been conducted on 25 Wushu male players and 25 Taekwondo male players studying at Punjab University, Chandigarh. The age of the subjects ranged between 20 to 25 years. The parameter selected for the purpose of the study was flexibility (back and hamstring). Sit and Reach Test was used to measure flexibility of back and hamstring. The collected data were statistically analysed by using independent's-t-test to find out the significance difference between the two groups. The level significance chosen was 0.05. Based on the analysis of statistical results, it was revealed that there was no significant difference obtained on back and hamstring flexibility between inter-college level male Wushu players and Taekwondo players. Both Wushu players and Taekwondo Players performed equally on Flexibility (back and hamstring).

Keywords: Flexibility, wushu and taekwondo players

Introduction

Physical fitness leads to better athletic performance, and persistent training will usually develop physical fitness (Cureton, 1956) [2]. Physical fitness is a key factor which affects the improvement of the level of the movement (Xu, 2015) [10]. Flexibility plays an important role in taekwondo, where high kicks are often performed, and is regarded as an important component of motor fitness (e.g., Heller *et al.*, 1998; Thompson and Vinueza, 1991) [3, 9]. Hong *et al.* (2021) [4] compared and analysed the characteristics of physique and physical fitness factors between the two sports in order to provide useful information for the establishment of effective training plans for Taekwondo Gyeonggi athletes and Wushu Santa athletes. Wushu Santa athletes tended to have a higher tendency for most of the physical fitness factors except balance and flexibility compared to Taekwondo competition athletes, and in particular, muscular strength of extensors of lower extremity and power were higher. Amatya (2020) [1] conducted a study on eighty-seven athletes from different seven sports athletes. 55 men and 32 women were volunteered to participate in this study. Out of seven sports groups studied, within men and women athletes, over all physical fitness of men and women elite players were average but they were below average in flexibility. More than one fourth of Nepalese elite players (27.78%) were over weighted (BMI>25). Wushu players were more flexible than other athletes. Taekwondo players in men and athletics in women were most physically fit. The study revealed that wushu men players had good flexibility. Boxing players and taekwondo players were average flexible but athletics, judo, karate and weightlifting players were poor in flexibility (Physiopedia, 2019) [8]. Compared to non-sports participation, martial arts have a more positive effect on muscular endurance and flexibility than team sports in adolescents. Therefore, these are important empirical evidence in order to martial arts in a wide range to promote the element of the physical education and the form of the physical activity in leisure time (Kayihan 2014) [7].

Based on the above studies and findings, the current study will be focused on comparing the flexibility between Wushu and Taekwondo players.

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Objectives of the study

The objective of the study was to determine the Flexibility (Back and Hamstring muscles) between inter-college level male Wushu players and Taekwondo players.

Materials and Methods

For the purpose of the study, fifty (Wushu=25, Taekwondo=25) inter-college level male players studying at Punjab University, Chandigarh were selected as subjects of the study. The age of the subjects ranged between 20 to 25 years. The parameter selected for the purpose of the study was Flexibility (Back and Hamstring). Sit and Reach Test was used to measure the flexibility of back and hamstring muscles. The collected data was statistically analysed by using independent ‘t’-test with the help of SPSS software to find out the significance difference between the two groups. The level of significance chosen was 0.05.

Findings

The comparison of flexibility (Sit and Reach Test) between Wushu players and Taekwondo players is depicted in Table 1.

Table 1: Comparison of Scores on Flexibility (Sit and Reach Test) between Wushu Players and Taekwondo Players And Taekwondo Players

Variables	Group	N	MEAN	SD	MD	SED	t- value
Flexibility	Wushu	25	34.20	9.74	2.54	2.79	.914
	Taekwondo	25	36.53	8.17			

*Significance at .05 level

‘T’_{.05 (48)} = 1.67

A glance at the result depicted in the table 1 showed that with regard to Wushu players mean score and standard deviation value of 34.20 and 9.74 as compared to the Taekwondo players mean and standard deviation value of 36.53 and 8.17 respectively was obtained. The mean deviation and standard error difference was obtained 2.54 and 2.79. No significant difference was found as the ‘t’-value is .914 whereas the tabulated value is 1.67 on 48 degree of freedom at 0.05 level of significant.

Mean scores of inter-college level male Wushu players and Taekwondo players on Flexibility is depicted graphically in fig. 1.

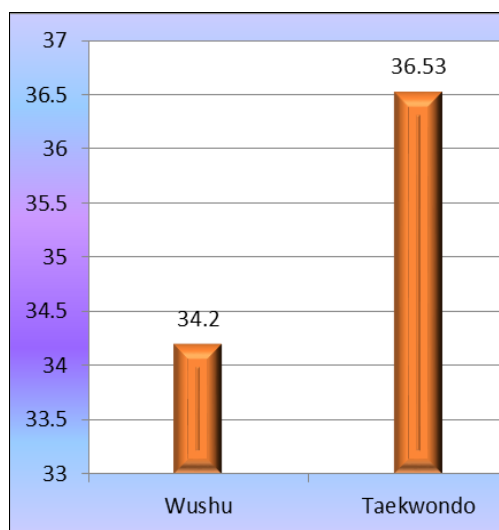


Fig 1: Mean Scores on Flexibility (Sit and Reach Test) between Wushu Players

Conclusion

There was no significant difference found on flexibility (back

and hamstring) between inter-college level male Wushu players and Taekwondo players. Both Wushu players and Taekwondo Players performed equally on Flexibility (back and hamstring).

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