

An Assessment of Agility between Judokas and Grapplers: A Comparative Study

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Abstract

The present study was designed to examine the agility between judokas and grapplers. Total fifty (N=50) male subjects were selected for this study. Twenty-five (n=25) judokas and twenty-five (n=25) grapplers, who had participated at inter-college competitions during the session of 2014-15 from various colleges of Panjab University, Chandigarh were examined. Agility was measured by administering Boomerang agility test (Right) developed by Donald D.G et al.(1940). The age of judokas and grapplers were ranged between 19 to 25 years. The Mean, SD, SEM and 't'-value were calculated to find out the significance of difference between judokas and grapplers. The level of significance was set at 0.05. The results revealed insignificant difference with regard to the variable agility between judokas and grapplers.

KEYWORDS: Agility, Judokas, Grapplers

Introduction

Agility has characteristically been distinct as purely the ability to change direction hurriedly (Bloomfield, Auckland and Elliot, 1994), Barrow and McGee (1971) states it as the skill to alter direction rapidly and accurately. In more recent publications, some authors have defined agility to embrace whole-body change of direction as well as rapid movement and direction or change of limbs (Baechle, 1994; Johnson and Nelson, 1969). Moreno (1995) had introduced the word quickness, which he used interchangeably for both agility and change of direction speed. According to him quickness has been identified as “a multi-planar or multidirectional skill that combines acceleration, explosiveness, and reactivity. Sheppard and Young (2006) defined agility as a "rapid whole body movement with change of velocity or direction in response to a stimulus. Agility or nimbleness is the ability to change the body's position efficiently, and requires the integration of isolated movement skills using a combination of balance, coordination, speed, reflexes, strength, and endurance. Agility is the ability to change the direction of the body in an efficient and effective manner and to achieve this requires a combination of balance – the ability to maintain equilibrium when stationary or moving (i.e. not to fall over) through the coordinated actions of our sensory functions (eyes, ears and the proprioceptive organs in our joints); static balance – the ability to retain the centre of mass above the base of support in a stationary position; dynamic balance – the ability to maintain balance with body movement; speed - the ability to move all or part of the body quickly; strength - the ability of a muscle or muscle group to overcome a resistance; and lastly, co-ordination – the ability to control the movement of the body in co-operation with the body's sensory functions (e.g., in catching a ball [ball, hand and eye co-ordination])”. According to Neilson and Johnson (1970) agility as the physical ability, which enable an individual to rapidly change his/her body position and direction in a very precise manner. Judo and wrestling are confrontational sports which involves

physical contact as well as also demands rapidity of movement as it provides basis for enhancing one's level of performance. Kano (1936) corroborated judo and wrestling as the way of applying most effectively one's energy, physical and mental as they are dynamic in nature. Rondey et al. (2007) combative sports like judo, wrestling and boxing demands the philosophy of "maximum efficiency with minimum effort" which has generated considerable interest in the early phases of a bout or the time in which the opponent's balance is manipulated. Therefore, the objective of the present study is to assess the agility between judokas and grapplers.

Material and Method

Sample: Total fifty (N=50) male subjects were selected for this study. Twenty-five (n=25) judokas and twenty-five (n=25) grapplers, who had participated at inter-college competitions from various colleges of Panjab University, Chandigarh were examined. The age of judokas and grapplers were ranged between 19 to 25 years.

Tool: Agility was measured by administrating Boomerang agility test (Right) developed by Donald D.G et al. (1940).

Statistical treatment: The Mean, SD, SEDM and 't'-value were calculated to find out the significance of difference and direction of difference between judokas and grapplers. The level of significance was set at 0.05level.

RESULT

The results with regard to the variable agility between judokas and grapplers have been presented in the following table.

TABLE-1

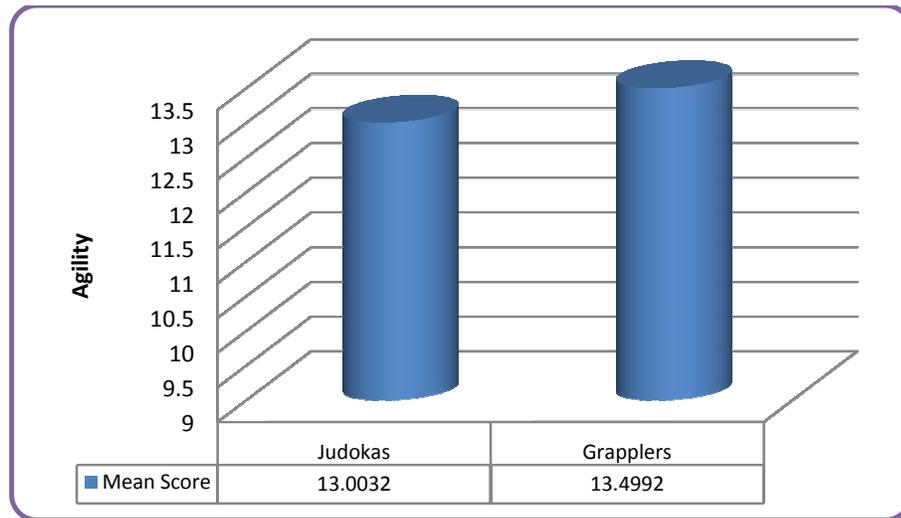
Significance of difference in mean scores between judokas and grapplers on the variable agility

S. No	Variable	Judokas (N=25)		Grapplers (N=25)		MD	SED M	't' value	Sig.
		Mean	SD	Mean	SD				
1.	Agility	13.003 2	.7082 2	13.499 2	2.9038 6	- .49600	.5978 0	-.830	.41 1

Significant at 0.05level (df =48)

Table-1 presents the results of variable agility between judokas and grapplers. The descriptive statistics shows the Mean and S.D. values of judokas as 13.0032 and .70822 respectively. However, grapplers had Mean and S.D. values as 13.4992 and 2.90386 respectively. The Mean Difference and Standard Error Difference of Mean were .49600 and .59780 respectively. The 't'-value .830 as shown in the table above was found statistically insignificant as the P-value (sig.) .411 was found higher than 0.05 level of significance with (df=48).

Figure 1: Graphical representation of mean scores with regard to the variable agility between judokas and grapplers.



Discussion

It is evident from the above findings that insignificant difference has been observed on the variable agility between judokas and grapplers. The outcome of the study might be due to the fact that agility plays dominating role in judo and wrestling and players also focus on this component during their training schedule. Hence, both the groups developed equally on the above said variable. The present findings substantiate the assertion of Singh (2014) who corroborated insignificant difference between judokas and wrestlers with regard to the speed of the movement. Similarly, Ratamess, N .A. (2011) substantiated that the grappling sports of judo, jiu-jitsu, and wrestling require the athlete to be in peak physical shape. Specific training targeting all health- and skill-related fitness conditioning components is needed to maximize success in grappling sports. Strength and condition programs for grapplers consist of weight, polymeric, agility, flexibility, speed, and aerobic training all properly periodized and integrated with sport practice to maximize performance at the appropriate time.

Conclusion

It is concluded from the above findings that no significant differences were found on the variable agility between judokas and grapplers.

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