

Comparative Study of Steadiness among the Female Players of Hockey at Inter College and Inter Varsity Level

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Abstract: The purpose of the study was to compare the steadiness of female hockey players of inter college and inter university level. For achieving the purpose of the study total forty female (n = 40) hockey players were selected as samples from Guru Nanak Dev University Amritsar and Punjabi University Patiala. From all the selected subjects, twenty were inter college ranked players and twenty were inter university ranked players. The age of subjects ranged between 18 to 25 year. Eight Hole Steadiness Tester was the best suited instrument for the present study and it was also used to measure the Steadiness of forty female hockey players. After the collection of relevant data, it was processed and analyzed with descriptive statistics. To compare the Steadiness of subjects, Mean, Standard Deviation and t-test was employed with the help of statistical package of SPSS. To test the hypothesis the significance level was set at 0.05 percent. After statistical treatment, result showed that there was significant difference for Steadiness between inter university and inters college female hockey players.

Keywords: *Steadiness, Hockey and Players.*

Introduction:

Steadiness is the ability to maintain the body or a part of body in the fixed position or the ability to perform a smooth movement without any deviation from the desired course steadiness is adversely affected by muscle tension normally decreases as strength of contraction increases. It is important component of skill requiring very controlled, steady movement. Such as shooting, stopping and receiving the ball relatively short period of time. This is a psychomotor phenomenon. It depends upon the combination of psychological process as well as the motor event of the body. Being a psychomotor process it depends upon not only the muscular caliber of an individual but also on the mental ability to concentrate on the target. Like shooting in goal post, passing to the team mates, receiving and stopping the ball etc. It is influenced or affected by various psychological factors like anxiety, depression and lack of concentration. There are many factors determine arm hand steadiness of an individual, gender being the first. Physical strength affects perceptual motor abilities. It is well documented that females generally exhibit significantly lower strength and steadiness

than males. The individual's state of mind is other important aspects that cannot be ignored. Jasbir Singh (2011) conducted a study to compare the level of steadiness and depth perception among Archers at different distances. It is concluded that no difference at distances and there was a significant difference of steadiness among archers at different distance.

Gaganpreet Kaur (2007) investigated the differences in arm- hand steadiness arising out of individuals subjected to different training conditions and to investigate for gender differences in performances in performance. The sample for study were 1300 normal, healthy subjects aged between 18-35 years and 100 subjects each from armed forces, Punjab police and civilians (control). Subjects are tested on a standard laboratory 9 whole steadiness tester for their ability to hold a stylus in a series of holes decreasing from 12.5 mm to 2.5 mm without touching the sides of the holes. It has been observed that the armed forces are steadiest and statistically significant difference in all the holes.

D. H. Laidlaw et al (2000) conducted study to compare the steadiness and discharge rate of motor units during sub maximal contractions performed by young and old adults. Subjects performed isometric and slow shortening and lengthening contractions with the first dorsal interosseous muscle. The steadiness of the isometric and slow an isometric contraction was less for the old subjects compared with the young subjects. And concluded that a more variable discharge by single motor units probably contributes to the reduced ability of old adults to perform steady muscle contractions.

G. Borg and H. Sjoberg (1981) also researched on the performance of 12 subjects in a hand steadiness task was compared at different workloads. Hand steadiness expressed in the form of values of hand shakiness was found not to increase linearly with work intensity. On the contrary, the relation between hand and shakiness and activation level, induced by physical work, was found to be positively accelerated by an exponent 1.6. Subjective effort measured by a ratio estimation method grew likewise, according to a positively accelerating. Function with an exponent of about 1.6, while subjective effort according to the "RPE" category scale like hear rate grew linearly with workload.

P. Deshaies and D. Perhman (1977) relationship between visual abilities and athletic performance has been examined but reported findings are inconclusive and inconsistent. Data were collected vision, vertical peripheral vision, depth perception, and visual disembodying. No, difference were found between varsity and junior varsity football players, indicating that

relatively more successful players are not characterized by eye greater visual perception attributes.

Objective:

To evaluate Steadiness of female Hockey players of inter college and inter university level.

Methodology and Procedure:

The survey type study was designed with a main objective to compare Steadiness of female hockey players. Total forty female ($n = 40$) hockey players were selected as samples from Guru Nanak Dev University Amritsar and Punjabi University Patiala. From all the selected subjects, twenty were inter college ranked players and twenty were inter varsity ranked players. The age of subjects ranged between 18 to 25 year.

Tool:

Eight Hole Tester was the best suited tool for the present study and was used to measure the Steadiness of samples.

Statistical Analysis:

After the collection of relevant data, it was processed and analyzed with descriptive statistics. To compare the Steadiness of subjects, Mean, standard deviation and t-test was employed with the help of statistical package of SPSS. To test the hypothesis the significance level was set at 0.05 percent.

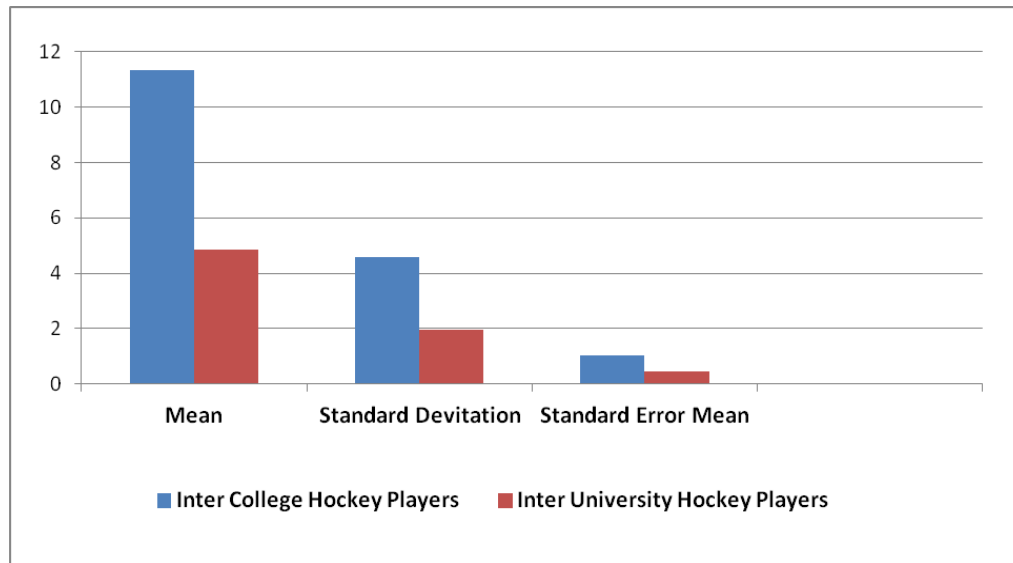
Table-1: Mean and Standard Deviation of Steadiness of Inter College and Inter University Level Female Hockey Players

Group	Mean	Standard Deviation	Standard Error Mean	t-value
Inter College Hockey Players	11.35	4.59	1.03	5.825
Inter university Hockey Players	4.85	1.95	0.44	

Level of significance 0.05 $t_{0.05}(38) = 2.021$

Table-1 depicts that the Mean and Standard Deviation values of Steadiness with regards to inter college Hockey players are 11.35 and 4.59 whereas in the case of inter university Hockey players are 4.85 and 1.95 respectively. The calculated t-value (5.825) which is more than tabulated t-value (2.021) at 0.05 levels. So it indicates that there has been a significant difference between inter college and inter university players.

Figure-1 Mean and Standard Deviation of Steadiness of Inter College and Inter University Level Female Hockey Players



Discussion of Findings:

The present study was based on the hypothesis that there exist significant difference between Steadiness among inter college and inter university female hockey players. The hypothesis is partially accepted. According to the result obtained it is established that there exist a significant difference between Steadiness among inter college and inter university female hockey players. Because of the maturity level of the game and training differences. On the basis of analysis of the data, investigator found that the earlier study of Gaganpreet Kaur (2007) supported the present study. It was observed that there was a significant difference between inter university and inter college female hockey players for their steadiness.

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