

Assessment of Coordination Tests Among Sports and Non-Sports College Women

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Abstract

The aim of this study was Assessment of Coordination Tests Among Sports and Non-Sports in College Women. To achieve the purpose of the study, the investigator selected fifty College Women as participants in the age group of 18 to 25 years. Of the fifty College Women, twenty five women are perform sports activities (group-I), another twenty five women do not perform in any sports activities. The Coordination and Reaction Time was selected as dependent variable. By conducting Alternate Hand Wall Toss Test, the data was collected. The assessed data of the two group's through standardized tests was analyzed to discover the significant variation through paired 't' test. The confidence level 0.05 was set. After Coordination Tests of Non-Sports Women (19.500) and Sports Women (22.916) mean scores considerably.

Key Words: *Sports and Non-Sports College Women, Coordination and Reaction Time, Alternate Hand Wall Toss Test.*

INTRODUCTION

A scientific analysis of a person's coordination with respect to their skills might help in a much more positive way. This will enable not only the right type of selection based on scientific data but also help in maximizing the person's potentials. Motor fitness is the ability to perform activities that require muscular coordination such as walking, running, playing and manipulating instrument and machinery. General motor fitness is the immediate capacity of an individual, to perform in many varied stunts or athletic event. Coordination skills are known to significantly influence the level of sports performance, but more specifically, one can say that their individual level of development directly influences the player's technical background. In performance and high-performance sport, a great importance is given

to the physical condition. It is in fact the preoccupation for the adaptation of the sports man's body to growing physical and mental efforts, to which all the parts of the human body participate.

Attention to physical and mental qualities of human nature has been incorporated in sports as general information, notably in study papers that assess how much diverse activities done for a certain period of time. Visual motor coordination is described as perceiving visual inputs and producing appropriate motor responses via mind-body coordination. This is known as eye-hand coordination. The visual-motor coordination skills such as walking, running, jumping, cooking, dressing, undressing, buttoning, washing hands and face, brushing teeth, cycling, driving, reading-writing and using scissors. Eye-hand coordination is the capability of the visual process to supervise the knowledge obtained throughout the eyeballs to manage and guide the thinking of the hand to complete a given task. Hand-eye collaboration is one of the skills required by humans and can affect all aspects of daily life, including school, daily life activities, and social interaction. A better understanding of the influence of skills such as coordination and agility on college women can contribute to design more efficient physical exercise programs capable to promote not just physical and social benefits, but also enhance women cognition. To address this study, we assessed coordination and reaction time tests to college women. The current study aimed to investigate the assessment of coordination.

SUBJECTS AND METHODS

The study comprised female participants aged 18–25 years. The participants were chosen using a simple random sampling procedure. The research was carried out at Janata Government First Grade College, Basavapatna, India. Before enrolling subjects in the trial, individuals provided informed consent. The inclusion criteria were normal healthy female aged 18–25 years. The exclusion criteria were Individuals taking hypertension drugs, those with chronic respiratory and cardiovascular conditions, those unwilling to engage in the study, and hypotensive and hypertensive individuals.

To measure the Coordination for an individual the investigator used a Alternate Hand Wall Toss Test. The participants are made to stands 2 metres from a wall and faces the wall and throws a ball against a wall using an underarm action with the right hand and catches the ball with the left hand, and then

throws the ball with the left hand and catches the ball with the right hand. This counts as a single action. Continue this cycle of throwing and catching is continued for 30 seconds and the number of successful catches in this period is recorded for scoring. Appropriate statistical tools and techniques has been used as, mean, standard deviation and t test were incorporated and analysed using SPSS version 27.

RESULTS

The study was conducted with the aim to compare the Coordination among who do sports activities regularly and who do not. Data for this study were gathered by administering the standard test, on twenty-five sports persons and twenty-five non-sports persons. Further, Descriptive research was used to analyse the data and draw a firm conclusion.

Table-I: Descriptive Analysis of Mean Values between Sports players and Non-Sports players:

Group	N	Mean	Std. Deviation	Std. Error Mean
Non-Sports	25	19.5	5.7893	1.15799
Sports	25	22.916	6.58230	1.31646

Table-I presents the mean scores for coordination between sports players and non-sports players. The mean score of anger for the sports players is 22.916 ± 6.58 and for non-sports players is 19.5 ± 5.78 , To determine if this difference in mean scores was statistically significant, an independent samples t-test was conducted. The results of the t-test yielded a t-value of 1.802. This value was compared to the critical value from the t-distribution table at the 0.05 significance level.

Table -II: Illustration of T-Value among the Sports players and Non- Sports players :

Group	Mean	df	Mean Difference	Std. Error Difference	t-value
Non-Sports	19.5	48	3.1600	1.7532	1.802*
Sports	22.916				

Table value req. for significance at (0.05 level) for the df of 48 is 0.28

Table-II shows the obtained t-value of sports players and non-sports players is 1.802 exceeding the critical value (0.28), the difference in coordination scores among sports players and non-sports players was deemed statistically significant at the 0.05 level.

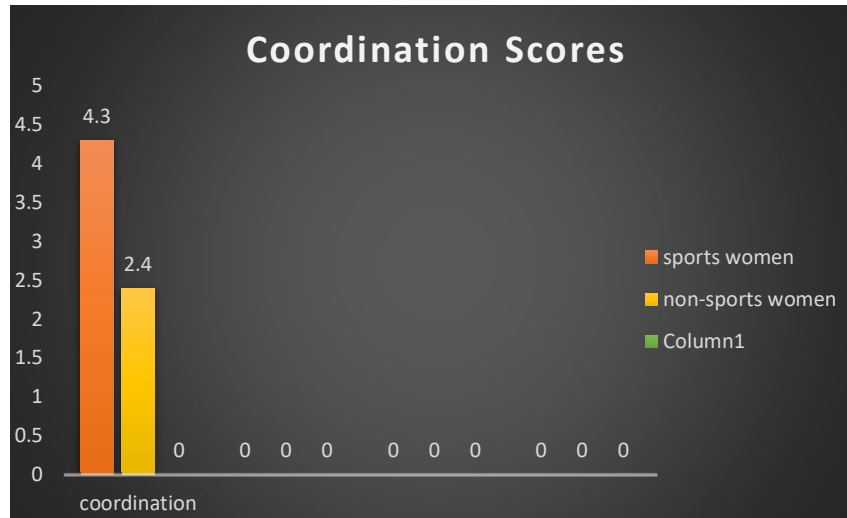


Figure-I Graphical Representation on difference in coordination scores among sports women and non-sports women:

DISCUSSION

The objective of the present study was to compare the impact of Coordination Tests Among Sports and Non-Sports in College Women. The results revealed a statistically significant difference between the two groups following the intervention, indicating that Coordination significantly higher in Sports Women when compared to non-sports Women. Previous research has shown that there will be more chance of hand-eye coordination in sports players. These findings suggest that there will be more possibility of Coordination of sports women when compared to non-sports women.

The current study's findings show that there is a difference among coordination of sports women and non-sports women. The findings of the current study were showed a no significant difference between sports women and non-sports women in eye and hand coordination with MMDT test. The difference in coordination is observed in the sports women have involving sports activities regularly and these

participation keeps the women to be fit and the women who is not involving in any sports or physical activities

Our study was on few limitations; it has a limited sample as per availability of players from only a few disciplines of sports such as volleyball, kho-kho, badminton. However, other sports disciplines, such as football, hockey, and tennis, can also be included in the future studies to determine a more sports-specific difference in coordination. Also, the other factors that were not controlled or considered were the arousal level and motivation. Even though the time of day at which the testing was done was kept consistent, individual arousal levels may fluctuate throughout the day This adds to the study's uniqueness, as it opens up possibilities for further research in exploring the influence of various sports on coordination.

CONCLUSION

Coordination are the key qualities in people who has the stability to do their daily needs. Coordination abilities should be examined using specialised activities relating to an athlete's training. We have proposed a test for assessing coordination using Alternate Hand Wall Toss Test, which includes participants made to stands 2 metres from a wall, faces the wall and throws a ball against a wall using an underarm action with the right hand and catches the ball with the left hand, and then throws the ball with the left hand and catches the ball with the right hand. The differences observed in the research, based on statistics, indicate that significant results were obtained when comparing the sports women with the non-sports women, confirming the hypothesis regarding the coordination of the sports women. The study is concluded that there is a significant difference among women sports person and women non-sports persons in Coordination and Reaction Time.

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