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MEASUREMENT OF AGILITY AMONG KHO-KHO AND BASKETBALL PLAYERS USING DIFFERENT TESTS

***Dr. Velpula Surender**

School Assistant (Physical Education), ZPHS Appannapet Peddapalli (Mdl & Dist) Telangana.

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***Corresponding Author: Dr. Velpula Surender**
School Assistant (Physical Education), ZPHS Appannapet Peddapalli (Mdl & Dist)

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ABSTRACT

Agility is the ability of individual to coordinate his movements and to synchronise them according to the requirements of changing conditions. In sports we distinguish between general and specific agility. General agility is expressed by the ability of a person to perform any movement from the entire versatile range of sporting activities in a functional and resourceful manner. Specific agility is developing accordance with the nature of the body movement of particular competitive event. Essentially, specific agility is the ability to vary the technique of the selected exercises. The purpose of the study was to find out the agility among kho-kho and basketball players of Osmania University, Hyderabad. The study would throw some light on the difference of the agility level of kho-kho and basketball players. Such results further help physical education teachers and coaches in the assessment of the individual's ability from the stand of their physical ability to take part in different activities. This finally provides the physical education teachers and coaches for the purpose of guidance and counseling the individuals and classifying them and placing them in different sports and also suggests constructive steps.

KEYWORDS: Agility, Kho-Kho, Basket Ball.

INTRODUCTION

Agility is important in all activities involving quick changes in positions of the body and its parts, fast strata and stops and quick changes in direction and fundamental to good performance in practically all court games, such as basketball, tennis, badminton and volleyball and in many field games, such as soccer and baseball. These games require

running ability, gymnastics and diving also depend (largely upon rapid movements and quick changes in body position). Skiing, figure skating and certain forms of dance require rapid adjustments in position and quick change in direction. Concerned with the present study agility as one of or the main components of physical fitness, is considered important

Kho-kho is an Indian game. It ranks as one of the most popular traditional sports in India. It is popular in the whole of India. This game is a modified form of 'Run Chase', which in its simplest form involves chasing and touching a person. Kho-kho, in ancient times, was played on 'raths' or chariots, and was known as Rathera. It is originated at Pune Gymkhana in the state of Maharashtra. Its team in India is called Kho-Kho Federation of India (KKFI).

Basketball: Present day basketball, however, originated at Springfield College in the USA. Dr.James Naismith devised the basic form of the game in 1891 is believed that he was influenced by games played in antiquity. He wrote the basic rules and nailed a peach basket onto the 10-foot (3.05 m) elevated track. In contrast with modern basketball nets, this peach basket retained its bottom. Therefore, balls scored into the basket had to be pocked out with a long dowel each time. Women's basket ball in 1892 at Smith College when Senda Berenson, a physical education teacher modified Naismith's rules for women. The first official basket ball game was played in the YMCA gymnasium on January 20, 1892 with nine players, on a court just half the size of a present day NBA court.

Objectives of the Study

The objectives of the present study is to find out the significant difference in agility between kho-kho players and basket ball players of inter-university players using various measurement techniques like (i) t-test, (ii) 10 m shuttle run, (iii) Illinoise test, (iv) 505 agility and hexagon.

Hypotheses

The following hypotheses were formulated for the study.

1. There may not be any significant difference between kho-kho and basketball players in relation to the agility (t-test).
2. There may not be any significant difference between kho-kho and basketball players in relation to the agility (10 m shuttle run).
3. There may not be any significant difference between kho-kho and basketball players in relation to the agility (Illinoise).

4. There may not be any significant difference between kho-kho and basketball players in relation to the agility (505 agility).
5. There may not be any significant difference between kho-kho and basketball players in relation to the agility (hexagon).

Delimitations: The study was delimited in the following aspects.

- The study was confined to the kho-kho and basketball players representing universities at Hyderabad.
- The test was administrated on university players the age group of 18-23 years.
- Numbers of subjects were considered to 60 from each group of kho-kho and basketball players from Hyderabad.

Limitations: The things concerned to climate conditions, health habits and other psychological variables were beyond the control of the investigator.

REVIEW OF LITERATURE

Joseph Singh (2013) compared the agility between kho-kho and kabaddi players, Twenty kho-kho & kabaddi male players were taken as the subjects for the study respectively, during Inter-collegiate of HNBGU. The age group of the subjects was ranged from (18-25) years. To measure agility between kho-kho & kabaddi players, semo agility test was conducted on the subjects of present study. The data collected where subjected to descriptive statistics and student "t" test and level of significance was set at 0.05 level. There was no significant difference found on agility between kho-kho and kabaddi players.

Sandip Sankar Ghosh and Chayan Majumder (2013) compare selected motor fitness components of kho-kho, Handball and Basketball players of West Bengal. In the present study Agility and Dynamic Balance were chosen as varia ble for motor fitness components. The study was conducted on seventy five (N=75) players [Twenty five kho-kho, twenty five handball and twenty five basketball players]. They were selected randomly from three districts of west Bengal Viz. North 24 parganas, Burd wan and Kolkata. The age group of the subjects was ranged from (14 – 18) years. In this study agility were measured by SEMO agility Test and dynamic balance were measured by Modified Bass test. Mean and standard deviation of each variable were calculated. To determine the significant difference among the means of three games in the selected motor fitness components, one way analysis of variance (ANOVA) was used. The level of significant difference was set at $p<0.05$ level of confidence.

For statistical calculations Excel Spread Sheet of windows version 7 was used. The result of the study showed that, there was no significant difference in selected motor fitness components of the three different games.

Bloomfield J, Polman R, O'Donoghue P, McNaughton L. (2007) compared the effectiveness of 2 methodologies for speed and agility conditioning for random, intermittent, and dynamic activity sports (e.g., soccer, tennis, hockey, basketball, rugby, and netball) and the necessity for specialized coaching equipment. A total of 46 (25 males and 21 females) untrained participants received (mean +/- SD) 12.2 +/- 2.1 hours of physical conditioning over 6 weeks between a battery of speed and agility parameter field tests. Two-way analysis of variance results indicated that both conditioning groups showed a significant decrease in body mass and body mass index, although PC achieved significantly greater improvements on acceleration, deceleration, leg power, dynamic balance, and the overall summation of % increases when compared to RC and NC ($p < 0.05$).

METHODOLOGY

Sample of the Study: The samples were collected from Osmania University players Hyderabad. The investigator has collected the data from kho-kho players and basketball players between the age group of 18-23 years. The subjects were chosen from different degree and colleges of Hyderabad who have represented “All India Inter University level” in kho-kho and basketball.

Tools Used: Five tests were considered to measure agility. They are : (1) Agility T-test, (2) 10 m shuttle run, (3) Illinoise, (4) 505 agility and (5) Hexagon.

Data Collection Procedure: As explained earlier the sample of the study was contained the players who have participated in university level in time factor and non time factor games. The researcher collected the data from different degree colleges of players who have represented university in various games.

Statistical Techniques Used: The data collected in this study was subjected to statistical analysis with appropriate tools. The descriptive statistics was used to find out the means and standard deviations and t-test was computed. For graphical presentation excel package of MS-office was used for better compliance.

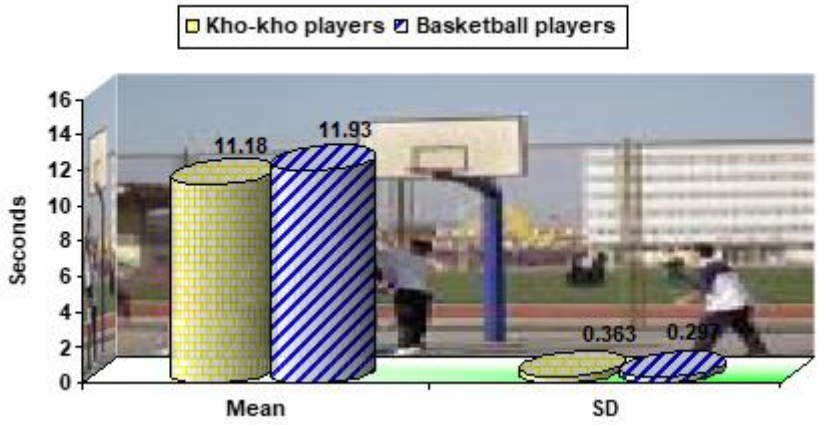
RESULTS AND DISCUSSION

The level of significance to test the t-ratio obtained by the analysis of covariance was fixed at 0.05 level of confidence which was considered to be appropriate in view of the fact highly sophisticated equipments were not used for more stringent levels of significance. The results pertaining to the Hypotheses are presented in tabular and graphical representation.

Showing the mean, SD, df and t-values between kho-kho and basket ball university players at Hyderabad in relation to their agility (T-test)

Sl. No.	*Variable*	*N*	*Mean*	*S.D.*	*Df*	*'t' ratio*	*Significance*
1.	Kho-kho players	30	11.18	0.363	58	8.724	0.000
2.	Basketball players	30	11.93	0.297			

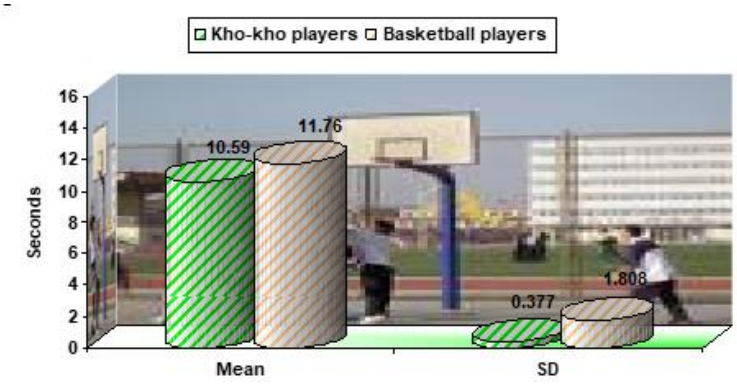
Graph



Showing the mean, SD, df and t-values between kho-kho and basket ball university players at Hyderabad in relation to their agility (10 m shuttle run)

Sl. No.	*Variable*	*N*	*Mean*	*S.D.*	*Df*	*'t' ratio*	*Significance*
1.	Kho-kho players	30	10.59	0.377	58	3.481	0.001
2.	Basketball players	30	11.76	1.808			

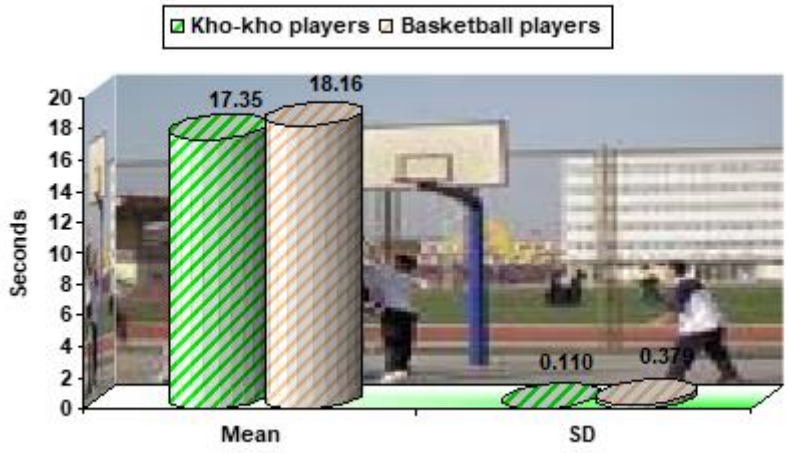
Graph



Showing the mean, SD, df and t-values between kho-kho and basket ball university players at Hyderabad in relation to their agility (Illinoise)

Sl. No.	*Variable*	*N*	*Mean*	*S.D.*	*Df*	*'t' ratio*	*Significance*
1.	Kho-kho players	30	17.35	0.110	58	11.267	0.000
2.	Basketball players	30	18.16	0.379			

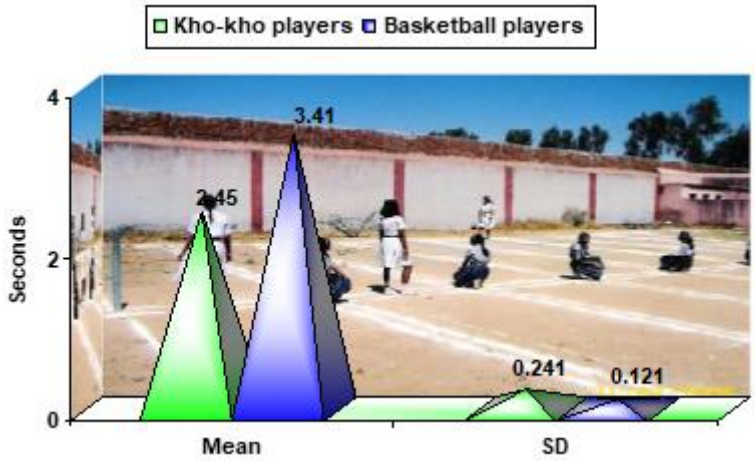
Graph



Showing the mean, SD, df and t-values between kho-kho and basket ball university players at Hyderabad in relation to their agility (505 agility)

Sl. No.	*Variable*	*N*	*Mean*	*S.D.*	*Df*	*'t' ratio*	*Significance*
1.	Kho-kho players	30	2.45	0.241	58	19.164	0.000
2.	Basketball players	30	3.41	0.121			

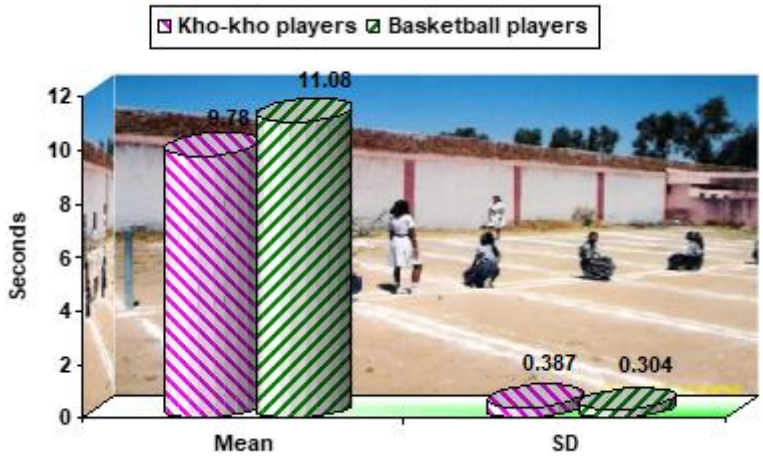
Graph



Showing the mean, SD, df and t-values between kho-kho and basket ball university players at Hyderabad in relation to their agility (Hexagon)

Sl. No.	*Variable*	*N*	*Mean*	*S.D.*	*Df*	*'t' ratio*	*Significance*
1.	Kho-kho players	30	9.78	0.387	58	1.435	0.000
2.	Basketball players	30	11.08	0.304			

Graph



DISCUSSION: From the obtained results it is very clear that agility have shown significant difference between the players of two selected games i.e., kho-kho and basketball players. In overall the illinoise agility test has shown a greater difference among two games players. In this illinoise test the basketball players have scored higher than kho-kho players.

CONCLUSION

A perusal of the entire presentation with a special reference to the chapter covering results and discussion would help in drawing the final conclusions for the present investigation. Agility and quickness training has become a popular way to train athletes. With the continually increasing need to promote athletic ability, this type of training has proven to enhance the practical field abilities of participants in a wide variety of sports. It is practiced in addition to conventional resistance training in the gym and serves to assist in the transfer of the strength gained there to performance in the arena of play. Nearly every sport requires fast movements of arms or legs, agility and quickness training can improve skill in precisely these areas. Hence, all athletes can benefit when agility and quickness training is integrated into their training program.

Although this type of training has been around for a number of years, many athletes have not practiced it. This is due primarily to a lack of education regarding both its specific benefits and how to integrate it into a complete training program.

Many athletes and coaches also do not realize that agility and quickness training can cover the complete spectrum of training intensity – from low to high. Each athlete will come into a training program at a different level, so the level of intensity must coincide with the athlete's abilities. No significant preparation is needed to participate at this level of agility and quickness training. Higher-intensity drills require a significant level of preparation. A simple approach to safe participation and increased effectiveness is to start a concurrent strength-training program when beginning agility and quickness training.

Agility Table as Pursued by Scholar.

Sl. No.	***Test***	***Average***		***Agility Test Ranking***
		Kho-Kho	***Basketball***	
1.	505 agility	2.45	3.41	19.164
2.	Illinoise	17.35	18.16	11.267
3.	T-test	11.18	11.93	8.740
4.	10 m shuttle run	10.59	11.76	3.481
5.	Hexagon	9.78	11.08	1.435

From the results obtained, it was found that 505-agility test has shown high score for kho-kho and basketball players, followed by Illinoise test with 11.267 and the t-ratio was 8.740, 3.481 and 1.435 for T-test, 10 m shuttle run and hexagon test, respectively.

The following conclusions were drawn for the present study as shown hereunder.

1. It is concluded that Illinoise test has shown greater variance in basketball players rather than kho-kho players.
2. It is concluded that 505 agility test has shown higher significance of basketball players rather than kho-kho players.
3. It is concluded that hexagon test has shown higher significance of basketball players rather than kho-kho players.
4. It is concluded that T-test has shown higher significance of basketball players rather than kho-kho players.
5. It is concluded that 10 m shuttle test has shown higher significance of basketball players rather than kho-kho players.

The most important physical fitness variable agility was critically analysed and the tests which yielded good result were shown.

RECOMMENDATIONS

The following recommendations were suggested.

1. Similar studies may be conducted on large scale.
2. Similar studies may be conducted leading to Ph.D. degree.
3. Similar studies may be conducted on other selected physical fitness variables.
4. Similar study may be conducted at different age levels of players for girls.
5. Similar study may be conducted based upon the community background (rural/urban).

REFERENCES

1. Alpert B, Field T, Goldstein S, Perry S. (1990), "Aerobics enhances cardiovascular fitness and agility in preschoolers", *Health Psychology.*, 9(1) pp.48-56.
2. Bloomfield J, Polman R, O'Donoghue P, McNaughton L. (2007), "Effective speed and agility conditioning methodology for random intermittent dynamic type sports", *J Strength Cond Res.*, 21(4), pp.1093-100.
3. Bloomfield J, Polman R, O'Donoghue P, McNaughton L. (2007), "Effective speed and agility conditioning methodology for random intermittent dynamic type sports", J Strength Cond Res., 21(4), pp.1093-100.
4. Clayne R.Jensen and A.Garth Fisher, "Scientific basis of athletic conditioning", Second edition, Philadelphia, Lee and Febiger, 1979, p.200.
5. Joseph Singh (2013), "Comparison of Agility between Kho-Kho and Kabaddi Players from Hnbgu", Lokavishkar International E-Journal, Vol-II, Issue-IV, pp.58-60.
6. Leicht AS (2008), "Physiological demands of basketball refereeing during international competition", *J Sci Med Sport.*, 11(3), pp.357-60.
7. Narazaki K, Berg K, Stergiou N, Chen B. (2008), "Physiological demands of competitive basketball", Scand J Med Sci Sports. (Accepted).
8. Sandip Sankar Ghosh and Chayan Majumder (2013), "A Study on Agility and Dynamic Balance of Kho-Kho Handball and Basketball Players", International Journal Of Scientific Research, vol.2, Iss: 7, pp.442-444.
9. Stewart MJ, Ellery PJ, Ellery J, Maher L. (2004), "Perceived psychological stress among high school basketball officials", *Percept Mot Skills.*, 99(2), pp.463-9.