

Comparative Study of Selected Bio Motor Variables among Kho-Kho and Kabaddi Females Players

Lt Bhawna Timmal,

Assistant Professor-Physical Education,
Smt. Sarda Johari N. P.G Degree College, Kasganj, (UP).

Dr. Jagdish Yadav,

Assistant Professor-Physical Education,
A.K. College, Shikohabad, Firozabad, (UP)
Email id: jyadav1509@gmail.com

Abstract:

The purpose of the present study was to see the comparative difference between the selected bio motor variables among Kho-Kho and Kabaddi female players. For the purpose of the study 10 Kho Kho and 10 Kabaddi female players, age ranged from 18-25 years, were selected as subjects. Keeping the feasibility criterion in mind, selected Bio Motor variables i.e. Static Balance, flexibility, Reaction Time, Coordination and Proprioception were selected for the present study. To compare the Bio motor variables among Kho-Kho and Kabaddi players t- test was used with the help of data analysis software SPSS 20 and the level of confidence was set at 0.05. The findings of the study showed that the Kabaddi and Kho Kho players have not shown significant difference in all the selected variables except Reaction Time which showed significant difference.

Key words: Static Balance, Flexibility, Reaction Time, Coordination.

Kho Kho and Kabaddi are the most popular among all the indigenous team games. Indian culture is the oldest culture in this world. It has gifted many things to this world. Literature, arts, sports, philosophy, scientific theories and social, political and economical thoughts spread in the world are originated from Indian culture. The game Kho Kho and Kabaddi had its origin in Maharashtra state and slowly spread throughout the length and breadth of India and subsequently to the neighboring countries, Nepal, Bangladesh, Srilanka and Pakistan. These games are simple, inexpensive and enjoyable. It is a game which demands higher level of physical fitness, which is played all over the India through which a player develops both physical and mental abilities and finally it results into a conscious method of doing whatever one does most effectively, whereas in other arts we utilize mental and physical abilities partially. Kho Kho and Kabaddi are the game of emotion and loyalty that inspires in its fans mean that this simple sport has a lot to live up to. But these games delivers it all cramming dynamic action, breathtaking skills, and heart stopping tension These are basically an Indian game, based on the natural principles of physical development which requires both skill and power. Kabaddi combines the characteristics of wrestling and rugby whereas in Kho Kho speed is the heart of this game and to stand a relentless pursuit of 9 minutes at a stretch where the heart demands

stoutness and stamina. Controlled sprint, dogging, diving are some of the skills exhibited during the game. The motor variable namely, speed, agility, flexibility, dynamic balance, power and reaction time are very important for kho kho and Kabaddi players because the nature of the games requires fast running for escaping from the opponents, Change of the direction is needed in order to shake off the opponents as well as to escape. The contemporary Kabaddi game, characterised by high intensity motor activities, places upon players a wide spectrum of requirements on all their capabilities. One can hardly single out any ability or a characteristic which is not engaged in the performance of Kabaddi players. In Kabaddi the player's need is speed, agility, flexibility, endurance etc. The purpose of the present study was to derive an answer to the question whether there is any significant difference between the selected Bio motor variables among Kho- Kho and Kabaddi. The research scholar has tried to do this by comparing Bio motor variables of female players of Kasganj district (UP).

Objective of the study: The purpose of the study was to compare the selected bio motor variables among kho-kho and kabaddi females players.

Hypothesis: It was hypothesized that there will not be a significant difference in the bio motor variables among kho-kho and kabaddi females players.

Methodology: For the purpose of the study, 10 female Kabaddi and 10 Kho Kho players were randomly selected as subjects for this study. The subjects have regular practice as per the schedule of their teams. Keeping the feasibility criterion in mind, selected Bio Motor variables i.e. Static Balance, Flexibility, Reaction Time, Coordination and Proprioception and selected.

Statistical Analysis: To compare the motor and respiratory variables among Kabaddi and Kho Kho players T- test was used with the help of data analysis software SPSS 20 and the level of confidence was set at 0.05.

Findings and Conclusion: The finding pertaining all the selected bio motor on Kabaddi and Kho kho players were presented below in the following tables:

Table 1
Independent t- Table for the data on Flexibility

Players	Means	S.D.	Mean Diff.	t-value	Sig.(2tailed)	F-Value	p-value
Kabaddi	10.31	0.75					
			-.002	-0.009	0.997	0.390	0.520
Kho Kho	10.33	0.78					

- Table 1 reveals that the values of mean and standard deviation for Range of motion of Kabaddi were 10.31 ± 0.75 and Kho Kho were 10.33 ± 0.78 .
- It can be also seen that F value was .390 which was insignificant as the p-value is 0.520 which is more than .05. Thus the null hypothesis of equality of Variance may be accepted and it is concluded that the variances of the two groups are equal. The t-value was found insignificant as its p-value is .520 which is more than .05 it is concluded that there was no difference between Kabaddi and Kho Kho players in terms of Flexibility.

Table 2
Independent t- Table for the data on Static Balance

Players	Means	S.D.	Mean Diff.	t-value	Sig.(2tailed)	F-Value	p-value
Kabaddi	31.00	16.52					
			3.36	1.90	0.389	0.488	0.432
Kho Kho	28.36	13.79					

- Table 2 reveals that the values of mean and standard deviation for Static Balance of Kabaddi were 31.00 ± 16.52 and Kho Kho were 28.36 ± 13.79 .
- It can be also seen that F value is .488 which is insignificant as the p-value is 0.432 which is more than .05. Thus the null hypothesis of equality of variance may be accepted and it is concluded that the variances of the two groups are equal. The t-value is insignificant as its p-value is 0.432 which is more than .05 and it is concluded that there was no difference between Kabaddi and Kho Kho in terms of Static Balance.

Table 3
Independent t- Table for the data on Proprioception

Players	Means	S.D.	Mean Diff.	t-value	Sig.(2tailed)	F-Value	p-value
Kabaddi	8.32	3.20					
			.51	1.674	0.21	1.847	0.180
Kho Kho	7.81	2.12					

- Table: 3 reveals the mean and standard deviation for the Kabaddi is 8.32 ± 3.20 and for Kho Kho is 7.81 ± 2.12 in relation to Proprioception.
- It can be also seen that F value is 1.847 which is insignificant as the p- value is 0.180 which is more than .05. Thus the null hypothesis of equality of Variance may be accepted and it is concluded that the variances of the two groups are equal. The t-value is insignificant as its p-value is 0.180 which is more than .05 and it is concluded that there was no difference between attacker and defenders in terms of proprioception.

Table 4
Independent t- Table for the data on Reaction Time

Players	Means	S.D.	Mean Diff.	t- value	Sig.(2tailed)	F- Value	p- value
Kabaddi	8.32	2.82					
			4.17	4.260	0.000	17.509	0.003
Kho Kho	4.15	1.96					

- Table: 4 reveals the mean and standard deviation for the Kabaddi is 8.32 ± 2.82 and for Kho Kho is 4.15 ± 1.96 in relation to Reaction Time.
- It can be also seen that F value is 17.509 which are significant as the p- value is 0.003 which is less than .05. Thus the null hypothesis of equality of Variance may be rejected and it is concluded that the Kho Kho players have better reaction time than Kabaddi players. The t-value is significant as its p-value is 0.003 which is less than .05 and it is concluded that there was significant difference between Kabaddi and Kho Kho players in terms of reaction time.

Table 5
Independent t- Table for the data on Coordination

Players	Means	S.D.	Mean Diff.	t- value	Sig.(2tailed)	F- Value	p- value
Kabaddi	4.92	2.80					
			-0.88	-0.313	0.674	0.885	0.267

Kho Kho	5.80	3.93					
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- Table: 5 reveals the mean and standard deviation for the Kabaddi is 4.92 ± 2.80 and for Kho Kho is 5.80 ± 3.93 in relation to Coordination.
- It can be also seen that F value is 0.885 which is insignificant as the p value is 0.267 which is more than 0.05. Thus the null hypothesis of equality of variance may be accepted and it is concluded that the variances of the two groups are equal. The t-value is insignificant as its p-value is 0.267 which is more than .05 and it is concluded that there was no difference between Kabaddi and Kho Kho players in terms of Co-ordination.

Discussion of findings

The purpose of the study was to compare the selected Bio motor variables of Kabaddi and Kho Kho players. The result of the study reveals that the motor variable namely Flexibility, Static balance, Proprioception and Coordination, showed insignificant difference except Reaction time which showed significant difference among Kabaddi and Kho Kho players where Kho Kho players has better reaction time than Kabaddi players. This difference in reaction time is may be because Kho Kho players do more training for touch and go. They have to respond auditory stimulus as well as tactile stimulus during the kho given by his/her team members.

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