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Effect of wobble board intervention training on motoricand skill related parameters of Kho Kho players

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Abstract
The purpose of this study is to assess the effect of wobble board intervention training on motoric and skill related parameters of kho kho players. To achieve the purpose of the study 40 male kho-kho players were selected from affiliated T.N.G.R memorial sports club, Coimbatore. The selected subjects were assigned into 2 groups: wobble board intervention training group 'I' (WBIT) (n = 20) and control group 'II' (CG) (n = 20). The respective training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of sixteen weeks. The control group was not be given any sort of training except their routine work. The motoric parameters balance were assessed by (stork balance stand test) and leg explosive power were assessed by (Sargent jump) and skill related parameters pole dive were assessed by (Pole Dive Test). The data collected from the subjects was statistically analyzed with 't' ratio to find out significant improvement if any at 0.05 level of confidence. The result of the balance, leg explosive power and pole dive improved significantly due to effect of wobble board intervention training with the limitations of (diet, climate, life style) status and previous training the result of the present study coincide findings of the investigation done by different experts in the field of sports sciences.

Keywords: Wobble board intervention training, kho-kho players, motoric and skill related parameters, balance, leg explosive power and pole dive

Introduction
Kho-Kho is the Indian origin game of chasing which roots are connected from Indian mythology. This game played all around the country but Maharashtra, West Bengal, Karnataka, Madhya Pradesh, Kerala, Gujarat, Andhra and Tamil nadu are the places where kho-kho played specifically. Two teams of 12 players of which 9 take part on the field to compete in this game rest three players are reserves. Physical fitness, strength, speed and stamina and dodging ability are highly tested in this game. Gymkhana Poona in 1914 formed a committee to form rule and regulations for the game and in 1924 Gymkhana Baroda published the first-ever book on the rules and regulations of Kho-Kho. In this rule book it was mention that the game should start after the toss, one team sits in a row down the middle of the court, with alternate members facing opposite directions. They are the chasers. The opposing team sends three players in the court as a dodger. It was decided that only the chaser may run behind the runner in only one direction and touch the runner without cutting or crossing the centre line and can also take the help of his/her teammate by loudly saying 'Kho' after touching the back of his/her mate. The main concept of this game is to tag all the dodgers in the shortest time period. Kho-Kho Federation of India is the organising body of this game which was created in 1956-57 at Cuttack, Orissa to popularize the Kho-Kho game Chakraborty *et al.*, (2015) [1].

Wobble Board Training
A wobble board is a tool for improving balance, functional strength, and mental concentration as well as for recovering from sports injuries. Wobble boards have been used to support a flat-surfaced ball or drum that was less stable. It is exceedingly difficult to balance over an unstable support, and while our body and mind adjust to movement on the flat surface below, it also puts a strain on our muscles and proprioception. In olden days, wobble board training mainly used for the purpose of rehabilitation as well as prevention of sports injuries.

At present, this training emerged as a popular training to improve sports performance. This training improves muscular strength, balance and coordination of the body which enable a player to achieve optimum performance in his sport. Wobble boards are made in a variety of sizes and forms and can be adjusted for users of various skill levels. Wobble boards have the additional benefit of significantly enhancing functional strength. Our bodies function more healthily in daily activities while practicing functional exercises on wobble board. All muscles work 5 together no one muscle can function alone, hence a range of movement patterns of training should include for producing effective outcomes. "Rehabilitation using wobble board techniques has been popular among clinicians for a number of years, particularly among football populations. Although research suggests an improvement in symptoms of ankle instability with the intervention of wobble board training, others contradict this claim indicating no significant improvement in balance or muscle function." Babakhani F., *et al.*, (2020) [2].

Hypotheses

It was hypothesized that, the wobble board intervention training would produce significant changes over motoric and skill related parameters of male kho-kho players.

Table 1: Characteristics of training groups (N=20) at pre training mean

Variable	TTG	CG
Age (Y)	14-17	14-17
Height (cm)	150.30	148.20
Weight (kg)	51	49

Methods

Forty male kho-kho players were randomly selected as subjects and their age ranged between 14 and 17 years. The subjects are categorized into two groups namely wobble board intervention training group (WBITG) and control group (CG) each group had twenty subjects. The selected criterion variables motoric parameters balance were assessed by (stork balance stand test) and leg explosive power were assessed by (Sargent jump) and skill related parameters pole dive were assessed by (Pole Dive Test).

Wobble board intervention training Programme

The training programme was lasted for 60 minutes for a session in a day, 3 days in a week for a period of sixteen weeks duration. These 60 minutes included wobble board intervention training for 30 to 40 minutes and 10 minutes warm-up, and 10 minutes warm down. Every four weeks of training 5% of intensity of load was increased from 65% to 0% of work load.

Statistical analysis

The means and standard deviations of wobble board intervention training groups were calculated for balance, leg explosive power and pole dive for the pre as well as post-tests. Statistical significance was set to a priority at $p < 0.05$. All statistical tests were calculated using the statistical package for the social science (SPSS).

Result and Findings

The effects of wobble board intervention training on selected balance, leg explosive power and pole dive were analyzed and presented below.

Balance

Table 1: Computation of 't'-ratio between pre and post-test means of wobble board intervention training experimental group and control group on balance (in seconds)

Group	Test	Mean	Standard Deviation	t-ratio
Wobble board intervention training	Per test	62.60	2.03	5.94*
	Post-test	66.60	1.56	
Control Group	Pre test	62.60	2.03	1.45
	Post-test	62.70	2.02	

* The table values significant level 0.05 level (degree of freedom 2.093, 1 and 19)

Table I reveals the computation of mean, standard deviation and 't' ratio on selected parameters namely balance of wobble board intervention training group. The obtained 't' ratio on balance were 5.94 respectively. The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant.

From the computation of mean, standard deviation and 't' ratio on selected parametrs namely balance of Control group. The obtained 't' ratio on balance were 1.45 respectively. The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were less than the table value it was found to be statistically not significant.

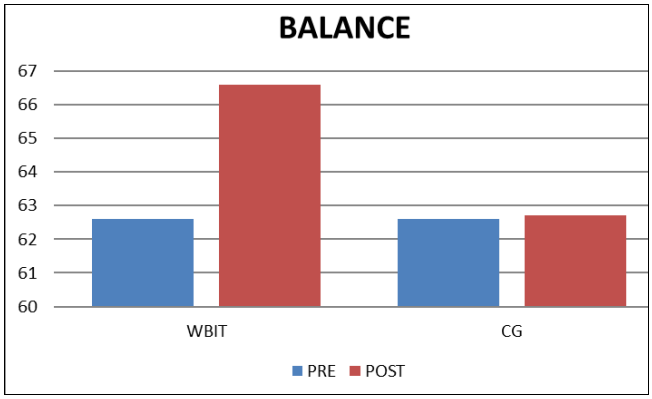

Fig 1: Bar diagram showing the mean values balance pre and posttest for experimental group and control group (Scores in seconds)

Leg Explosive Power

Table 2: Computation of 't'-ratio between pre and post-test means of wobble board intervention training experimental group and control group on leg explosive power (Scores in centimeters)

Group	Test	Mean	Standard Deviation	t-ratio
Wobble board intervention training	Per test	36.95	3.66	16.48*
	Post-test	41.00	3.62	
Control Group	Pre test	36.40	3.08	1.47
	Post-test	36.95	3.84	

* The table values significant level 0.05 level (degree of freedom 2.093, 1 and 19

Table II reveals the computation of mean, standard deviation and 't' ratio on selected parameters namely leg explosive power of wobble board intervention training group. The obtained 't' ratio on leg explosive power were 16.48 respectively.

The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant.

From the computation of mean, standard deviation and 't' ratio on selected parameters namely leg explosive power of Control group. The obtained 't' ratio on leg explosive power were 1.47 respectively. The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were less than the table value it was found to be statistically not significant.

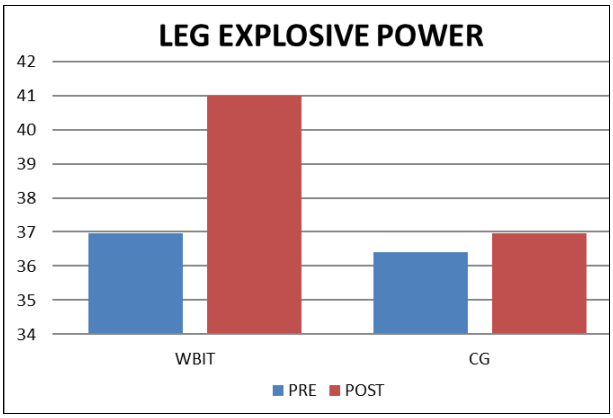

Fig 2: Bar diagram showing the mean values of leg explosive power pre and posttest for experimental group and control group. (Scores in centimeters)

Pole Dive

Table 3: Computation of 't'-ratio between pre and post-test means of wobble board intervention training experimental group and control group on pole dive (Scores in seconds)

Group	Test	Mean	Standard Deviation	t-ratio
Wobble board intervention training	Per test	18.61	0.09	10.76*
	Post-test	17.48	0.23	
Control Group	Pre test	18.60	0.13	1.92
	Post-test	18.70	0.13	

* The table values significant level 0.05 level (degree of freedom 2.093, 1 and 19

Table III reveals the computation of mean, standard deviation and 't' ratio on selected parameters namely pole dive of wobble board intervention training group. The obtained 't' ratio on pole dive were 10.76 respectively.

The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant.

From the computation of mean, standard deviation and 't' ratio on selected parameters namely pole dive of Control group. The obtained 't' ratio on pole dive were 1.92 respectively. The required table value was 2.093 for the degrees of freedom 1 and 19 at the 0.05 level of significance. Since the obtained 't' values were less than the table value it was found to be statistically not significant.

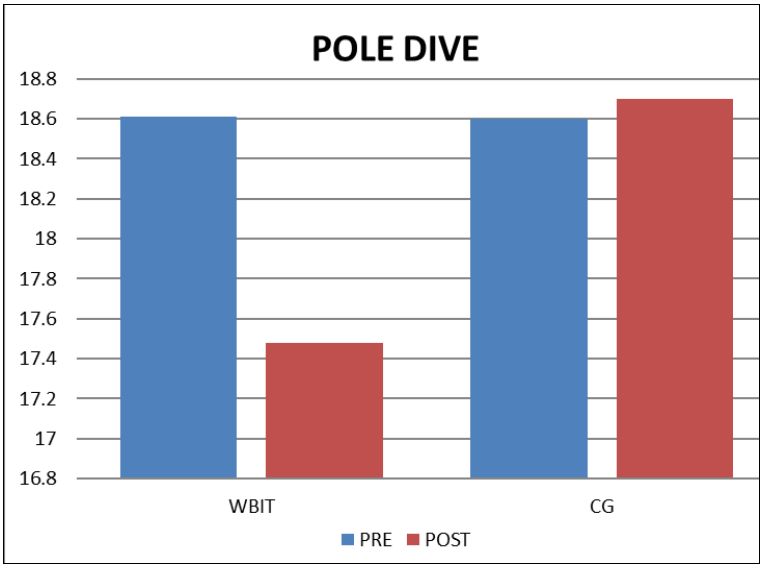

Fig 3: Bar diagram showing the mean values of pole dive pre and posttest for experimental group and control group. (Scores in seconds)

Discussion on Findings

The present study sought to investigate the effects of a 16-week period of training with wobble board intervention training on motoric and skill related parameters of kho-kho players. Overall, the outcomes of the motoric and skill related parameters assessment show that the of a 16-week wobble board intervention training period can promote greater improvements in balance, leg explosive power and pole dive parameters with wobble board intervention training of male kho-kho players. The motoric and skill related parameters selected for the study were balance, leg explosive power and pole dive. The result of the study was a significant improvement on playing ability of wobble board programme. The study of attempted to evaluate the effectiveness of wobble board balance training on chosen dependent variables among basketball athletes. The study affirmed that wobble board training had remarkable improvement on chosen dependent variables among basketball athletes Sharath U R., *et al*. (2020) [3]. The findings of the present study have strongly indicated that examined the effectiveness of wobble board and swiss ball training on chosen dependent variables of school students. The study confirmed that both wobble board and swiss ball trainings had remarkable improvement on chosen dependent variables abdominal strength, balance, agility, power and flexibility than the control group Jaswant Singh., *et al*. (2023) [4]. The result of the study was strongly indicated that examined the "Objective norms of offensive skill rising and covering for male Kho-Kho players." was completed by Chakraborty *et al*., (2020) [5].

However, the subjects participated in the control group did

not improve their balance, leg expolsive power and pole dive. The result of the present study indicates that the wobble board intervention training methods is appropriate protocol to balance, leg explosive power and pole dive. The discrepancy between the result and the result of previous studies might be attributed to several reasons, such as the training experience level of the subjects, the training programme, in intensity used and the duration of the training programme.

Conclusion

Twelve weeks of wobble board intervention training programme produced significant improvements in the balance, leg explosive power and pole dive of male kho-kho players. Wobble board intervention training is an appropriate training protocol to bring out desirable changes over motoric and skill related parameters of kho- kho players. Thus a continuous and systemic wobble board intervention training aimed at maximizing performance capacity should be applied of male kho-kho players.

References

1. Chakraborty G, Alhawat K. Construction of skill test in kho-kho. Int J Phys Educ Sports Health. 2015;2394-1685.
2. Babakhani F, Heydarian M, Hatefi M. The immediate effect of Kinesio Tape and wobble board training on ankle joint position sense in athletes with functional ankle instability. J Adv Sport Technol. 2020;4(2):49-59.
3. Sharath UR, Bhujanga P, Reddy PK, Shridhar S. A study on effect of wobble board balance training program on static balance, dynamic balance, triple hop distance and vertical jump height in basketball athletes. Int J Phys Educ Sports Health. 2020;7(6):163-169.
4. Singh J, Dureja G. Effects of wobble board and swiss ball training among school students. Int J Creat Res Thoughts. 2023;6(2):2320-2882.
5. Saha T, Chakraborty P, Ghosh SS. Objective norms of offensive skill rising and covering for male Kho-Kho players. Int J Health Phys Educ Comput Sci Sports. 2020;39(1):2231-3265.
6. Ogaya S, Ikezoe T, Soda N, Ichihashi N. Effects of balance training using wobble boards in the elderly. J Strength Cond Res. 2011;25(9):2616-2622.
7. Tiwari R, Venugopal R. To develop a tapping skill test for kho-kho female players. IJAR. 2015;1(13):164-166.
8. Parmar G, Kumar A. Creation of chain skill test for playing ability from Madhya Pradesh kho-kho players. Int J Phys Educ Sports Health. 2023;10(1):278-281.
9. Anjasmara B, Tirtayasa K, Wahyuddin NA, Widianti G, Primayanti D. Combination of wobble board and core stability exercise more improves body balance. Sport Fitness J. 2021;9(2):132-138.
10. Gioftsidou A, Vernadakis N, Malliou P, Batzios S, Sofokleous P, Antoniou P, Godolias G. Typical balance exercises or exergames for balance improvement. J Back Musculoskelet Rehabil. 2013;26(3):299-305.