



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (RJIIF): 5.38
IJPESH 2023; 10(4): 394-397
© 2023 IJPESH
www.kheljournal.com
Received: 22-07-2023
Accepted: 28-08-2023

Dr. B Navaneethan
M.P.Ed., M.Phil., Ph.D.,
Director of Physical Education,
PSG College of Arts and Science,
Coimbatore, Tamil Nadu, India

Isolated training group combined impact of weight training group ladder training group selected on muscular strength endurance and breath holding time among inter-collegiate female kabaddi players

Dr. B Navaneethan

Abstract

The purpose of this study was to find out the Isolated training group Combined impact of weight training group and ladder training group selected on muscular strength endurance and Breath Holding Time among inter collegiate female Kabaddi players. Sixty (60) female students from KPR college of Arts and Science, Coimbatore were participant selected. The age of the participant was ranged from 17 to 22 years. The selected fitness variables Muscular strength endurance were assessed by using sit up test and the physiological variable Breath holding time were assessed by using nostril clip scoring seconds. The selected students were divided in to four groups namely Isolated training group Combined impact of weight training group and ladder training group and control group. Isolated training group Combined impact of weight training group and ladder training group underwent specific drills/exercise according to their training design which is instructed by the researcher whereas Control group underwent zero training. The obtained data were statistically analysed by ANCOVA was used to find out the significant difference among the group. An alpha level of 0.05 was used for all tests. The results indicate that there is significant difference between Control group, and three training groups Isolated training group Combined impact of weight training group and ladder training group Among the three training groups, Combined impact of weight training group shows better results compared to Isolated Training group and ladder training group.

Keywords: Isolated training group combined impact of weight training group and ladder training group muscular strength endurance and breath holding time and kabaddi

Introduction

Keep singing and never give up. Our Tamils live and breathe Kabaddi. Our troops' temple is the Kabaddi field. The Kabaddi Field serves as a monument to our soldiers. The Kabaddi Field serves as a monument to our soldiers. The players who live by the adage that "Kabaddi is the lifeblood of our Kabaddi body and life" deserve this review article, which we have created for them. One of the old-fashioned games, Kabaddi, teaches us the rules, playgrounds, and strategies. Our daily lives will benefit from this discipline in addition to the game. Learn about physical prowess, mental stability, virtue and self-control, and a state of mind from the Guru or Coach. Do you believe we weren't chosen for the Indian, district, and national teams in Kabaddi? A research project on women from Tamil Nadu vying for positions on the Indian national team or in the government. We must learn about health and well-being from the Guru in order to develop our physical stamina, mental discipline, and state of mind, as well as to receive timely and appropriate training.

Players in the game of Kabaddi must react and move very swiftly because it is played so quickly. When you play the game, you won't have much time to evaluate the scenario, and since you aren't allowed to breathe, you'll need to move quickly. With practice, your physical and mental abilities will improve, even outside of the game. You'll develop quick reflexes, the ability to rapidly weigh the pros and cons of a situation, and the capacity to render swift decisions. Kabaddi is a simple and affordable sport to pick up on top of all these health advantages. Unlike other games that need both equipment and space, such as cricket, football, tennis, squash, badminton, or table tennis, Kabaddi does not.

Corresponding Author:
Dr. B Navaneethan
M.P.Ed., M.Phil., Ph.D.,
Director of Physical Education,
PSG College of Arts and Science,
Coimbatore, Tamil Nadu, India

A few friends, a green space, and a small amount of free time a few times a week are all you need.

and a control group was included. To determine the difference in statistical significance, an ANCOVA was performed to statistically analyze the given data. The threshold for statistical significance was set at the 0.05 level of confidence.

Experimental design and Statistical Technique

Pre- and post-testing this study used an experimental design,

Table 1: Computation of analysis of Co-Variance on Muscular Strength Endurance

Pre-test Mean				Post-test Mean				Adjusted post-test means			Sources of Variance		Sum of square	DF	Mean squares	F ratio	
ITG	CIWTG	LTG	CG	ITG	CIWTG	LTG	CG	ITG	CIWTG	LTG	CG	Between	Within	182.87	3	60.96	35.39
11.4±0.73	11.66±1.05	13.2±13.02	14.46±1.18	12.66±1.23	17±1.73	12.33±1.29	12.73±1.27	16.87	14.27	16.92	12.75		94.73	55	1.72		

ITG – Isolated Training Group, CIWTG – Combined Impact of Weight Training Group, LTG-ladder Training Group and CG – Control Group
 *Significant at 0.05 level of confidence (The table value required for significance at 0.05 level with df 3and 55is 3.24)

Table 1 shows the pretest mean of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 11.04,11.66, 13.2 and 14.4 respectively and post mean of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 12.66,17,12.33 and 12.7 respectively. The adjusted post-test means of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 16.87, 14.27, 16.92 and 12.75 respectively. The obtained f-ratio of 35.39* which is higher than the table value 3.24 with df 3 and 55

required for significance. The result of the study indicates that there are significant mean differences on self-confidence ability among the adjusted post-test means of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are at 0.05level of significance. Hence it is clear that the of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are significantly the Muscular strength endurance of the Participants. Among this Three training groups Isolated Training group seems to be the best.

Table 2: Scheffe’s Post Hoc Test on Muscular Strength and Endurance

Isolated Training Group	Combined Impact of weight Training	Ladder Training	Control Group	Mean Difference	Confidence interval
16.87	14.27			2.6*	1.21
16.87		16.92		0.05*	
16.87			12.75	4.12*	
	14.27	16.92		2.65*	
		16.92	12.75	4.17*	
	14.27		12.75	1.52*	

*Significant at .05 level

Table 2 shows that the adjusted post-test mean differences in Muscular Strength Endurance between Isolated Training group and combined impact of weight training Group is 2.6 and Isolated Training group and Ladder training group is 0.05, Isolated Training Group and Control Group is 4.12 combined impact of weight training Group between ladder

training group is2.65 ladder training group between control group 4.17 combined impact of weight between control group 1.52 which are greater than the confidence interval value of which is 1.21 statistically significant at 0.05 level of confidence.

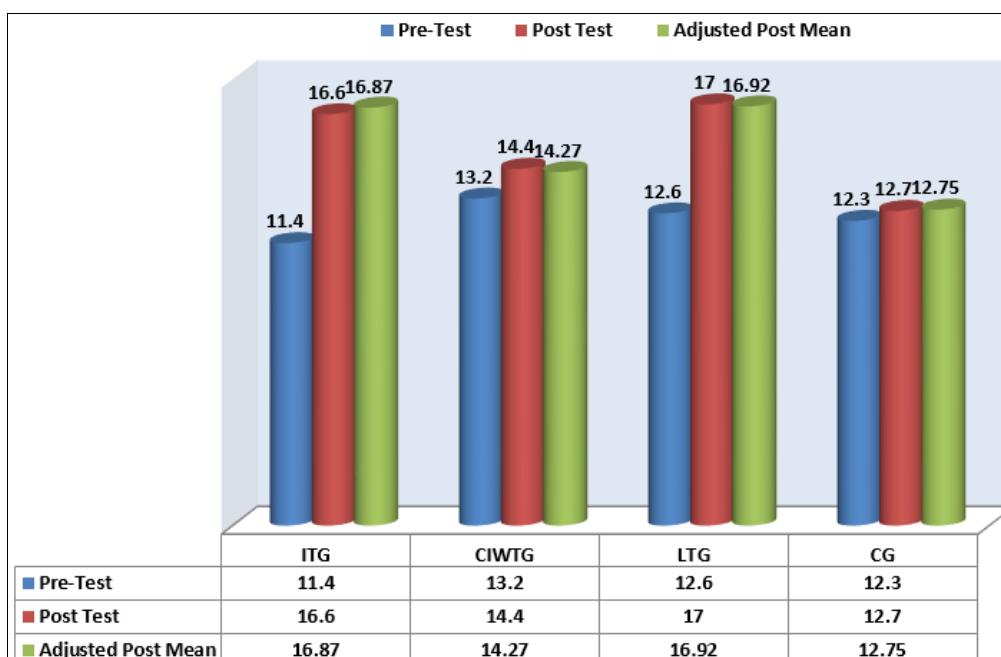


Fig 1: Muscular strength endurance

Experimental design and Statistical Technique

Pre- and post-testing this study used an experimental design, and a control group was included. To determine the difference

in statistical significance, an ANCOVA was performed to statistically analyse the given data. The threshold for statistical significance was set at the 0.05 level of confidence.

Table 3: Computation of Analysis of Co-Variance on Breath Holding Time

Pre-test Mean				Post-test Mean				Adjusted post-test means				Sources of Variance	Sum of square	DF	Mean squares	F
ITG	CIWTG	LTG	CG	ITG	CIWTG	LTG	CG	ITG	CIWTG	LTG	CG	Between	1406	3	468.67	52.12
34.06±2.65	49.2±2.98	34.66±3.06	44.66±2.41	37.4±2.38	42.6±4.03	34.33±3.03	35.8±2.24	49.35	44.73	42.26	36.91	Within	494.54	55	8.99	

ITG – Isolated Training Group, CIWTG – Combined Impact of Weight Training Group, LTG-ladder Training Group and CG – Control Group
 *Significant at 0.05 level of confidence (The table value required for significance at 0.05 level with df 3and 55is 3.24)

Table 3 shows the pre-test mean of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 34.06,49.02, 34.66 and 44.6 respectively and post mean of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 37.4,42.6,34.33, and 35.8 respectively. The adjusted post-test means of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are 49.35, 44.73, 42.26 and 36.91 respectively. The obtained f-ratio of 52.12* which is higher than the table value 3.24 with df 3 and 55

required for significance. The result of the study indicates that there are significant mean differences on self-confidence ability among the adjusted post-test means of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are at 0.05level of significance. Hence it is clear that the of Isolated Training Group, Combined Impact of Weight Training Group, Ladder Training group and Control Group are significantly the Breath holding time of the Participants. Among this Three training groups Isolated Training group seems to be the best.

Table 4: Scheffe’s Post Hoc Test on Muscular Strength and Endurance

Isolated Training Group	Combined Impact of weight Training	Ladder Training	Control Group	Mean Difference	Confidence interval
49.35	44.73			4.62*	2.78
49.35		42.26		7.09*	
49.35			36.91	12.44*	
	44.73	42.26		2.47*	
		42.26	36.91	5.35*	
	44.73		36.91	7.82*	

*Significant at .05 level

Table 4 shows that the adjusted post-test mean differences in Muscular Strength Endurance between Isolated Training group and combined impact of weight training Group is 4.62 and Isolated Training group and Ladder training group is 7.09, Isolated Training Group and Control Group is 12.44

combined impact of weight training Group between ladder training group is2.47 ladder training group between control group 5.35 combined impact of weight between control group 7.82 which are greater than the confidence interval value of which is statistically significant at 0.05 level of confidence.

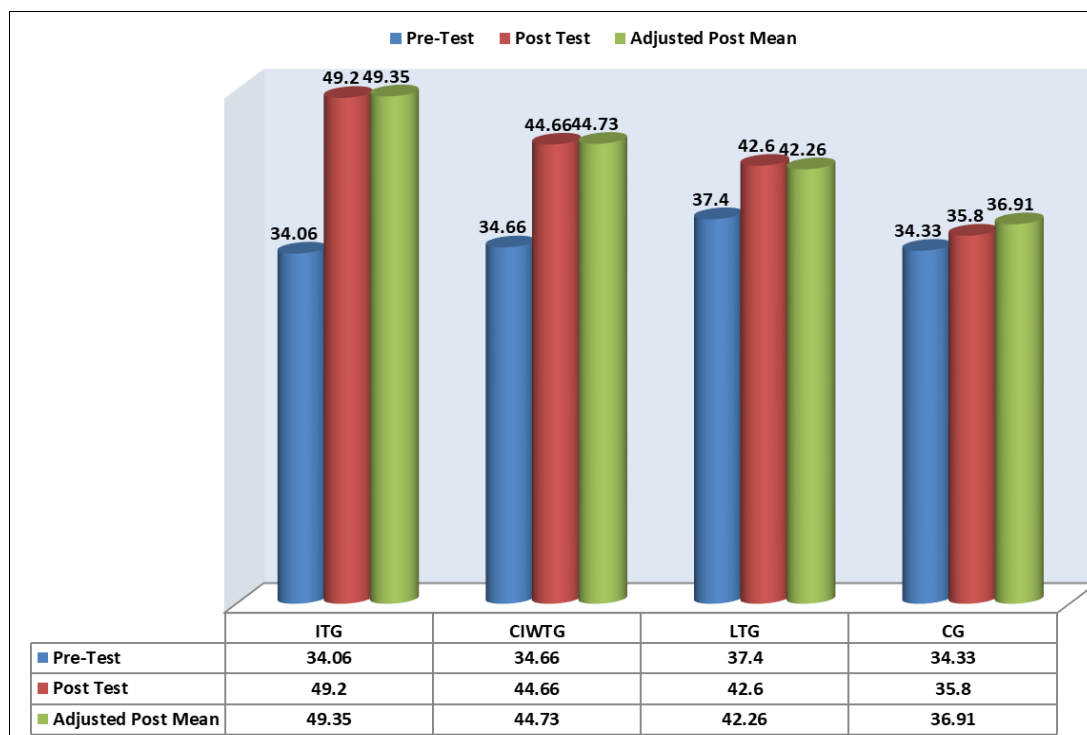


Fig 2: Breath holding time

Discussion on Findings

The results of analysis of co-variance on comparative results revealed that the mean difference existing between Control Group, ladder training Group combined impact of weight training and isolated training group on Muscular strength endurance and Breath holding time.

Conclusion

Based on the results of the study it was conclude that three training group namely Isolated Training group Combined impact of weight training group significance difference between Muscular strength and endurance and Hand touch ability. Among the two-training group, the specific high intensity group shown good improvement on Muscular strength endurance and Hand touch ability.

Recommendations

1. Based on the results similar studies may be conducted for correlation of fitness and defensive and offensive skills.
2. The result of this study was of great interest to physical educators, coaches and to the players, as they would be able to assess the morphological characteristics and motor abilities for efficient game performance.
3. The results also helped physical educators to set the norms for selection of Kabaddi players
4. Similar studies may be conducted on different age group.
5. It may be recommended to carry out similar studies with national/international players.
6. The study may be repeated with greater number of subjects.
7. A similar study may be carried out with other components, not used in this study.
8. Similar type of studies can be conducted with female players as subjects and it is recommended for future investigator for further research.

References

1. Rani S. A comparative study of flexibility between kabaddi and kho-kho games players. *Int. J Yoga Physiother. Phys. Educ.* 2018;3(2):76-77.
2. Shrivestava Y, Yadav JS. Effects of male kabaddi players on motor coordinative ability of playing surface clay and mat. *J Sports Phys Educ.* 2014;1(7):30-31.
3. Ali S, Adhikari S. Physical and Anthropometric Characteristics of Kabaddi Players. *Indian J Appl. Res.* 2014;4(1):464-465.
4. Rami AC, Silawat SN. A study of the psychological factors, anthropometric measurement and physical fitness of selected university players in Gujarat. *Shodh Samiksha Aur Mulyankan.* 2009, 2(6).
5. Singh AK, Kannan A, Singh RR. Prediction of kabaddi playing ability in the anthropometric and bio-motor contexts. *Acad Sports Scholar.* 2014;3(2):1-5.
6. Bandyopadhyay SC. Relationship of selected anthropometric measurements, physical fitness and motor ability to soccer skill performance [master's thesis]. Gwalior: Jiwaji University; 1982.
7. Chaakravarthy SK. Relationship of arm strength, leg strength, grip strength, agility, flexibility and balance to performance in gymnastics [doctoral thesis]. Gwalior: Jiwaji University; 1983.
8. Devaraju K, Needhiraja A. Prediction of playing ability in kabaddi from selected anthropometrical, physical, physiological and psychological variables among college level players. *Elixir Psychol.* 2013;56:13212-13215.

9. Devaraju K, Kalidasan R. Prediction of kabaddi playing ability from selected anthropometrical and physical variables among college level players. *Asian J Inf. Technol.* 2012;11(4):131-134.
10. Devaraju K, Needhiraja A. Prediction of playing ability in kabaddi from selected anthropometrical, physical, physiological and psychological variables among college level players. *Int J Manag.* 2012;3(2):150-157.
11. Gowda S. A comparative study of selected physical fitness variables among kabaddi players based on positional play [master's thesis]. Mysore: University of Mysore; 1989.
12. <https://fit.thequint.com/health-news/how-to-build-the-kabaddi-perfect-body-2>
13. <https://www.livemint.com/Sports/8gY5QkHHcnaneBgrLprt6L/How-kabaddi-players-are-becoming-faster-fitter-stronger.html>
14. <http://www.kabaddirao.com/kabaddi.php>
15. <https://www.indiatimes.com/health/healthyliving/sport-skills-kabaddi-241792.html>