

Effect of Game Specific Training with and Without Psychomotor Skills Training on Speed and Stress Among Male Kabaddi Players

Mr. P. Mooventhan¹, Dr. P. Sivakumar²

¹Ph.D., Research Scholar, Department of Physical Education, Annamalai University

²Assistant Professor & Research Supervisor, Department of Physical Education, Annamalai University

Abstract- The purpose of the study was to find out the effect of game specific training with and without psychomotor skills training on speed and stress. Forty five male kabaddi players aged between 19 and 25 years were selected for the study. They were divided into three equal groups, each group consisting of fifteen subjects in which three experimental groups and one control group, in which the group I (n=15) underwent game specific training with psychomotor skill training, group II (n = 15) underwent game specific training for three days (alternative days) per week for twelve weeks and group III, acted as control, which did not participate in any training apart from their regular kabaddi game practice. The subjects were tested on selected criterion variable as speed and stress at prior to and immediately after the training period. For testing the speed was assessed by administering 50 meters run and stress was measured by using Girdano and Everly Stress Scale, The analysis of covariance (ANCOVA) was used to find out the significant difference if any, between the experimental groups and control group on selected criterion variable separately. Since there were three groups involved in the present study, the Scheffé S test was used as post-hoc test. The selected criterion variables such as speed WAS improved and stress was decreased significantly for all the training groups when compared with the control group.

Key Words: *game specific training, psychomotor training, speed, stress.*

INTRODUCTION

Physical training is one of the most crucial aspects of a sportsman's life. Our daily lives are fed and enhanced when we engage in physical activity and embrace lifetime active, healthy lifestyles. These days, active living, wellbeing, and fitness are all popular subjects. Movement was the foundation of human evolution, and muscular motion was essential to the development of the human species.

Primitive physical activity must have been primarily a survival strategy.

The term "training" refers to the act of improving a person's resources and the use of instruction and direction to maximise a specific talent. Training refers to a certain cycle of repeated exercise and activity that includes learning and acclimatisation. Training enhances one's ability, efficiency, capacity, and performance [Klafs and Arnheim, (1989)].

Sports training's main goal is to put different body systems under stress in order to promote positive adaptation and improve athletic performance. In order to accomplish this goal, athletes and coaches employ a variety of training concepts, such as overload, specificity, and progression, which are arranged according to a process known as periodization. Applying these principles entails adjusting a number of program design variables, such as exercise selection, training activity/exercise sequence, training intensity (load and repetition), rest intervals between sets and activities/exercises, and training frequency and volume to provide stimulus and recovery periods. When these variables are successfully balanced, positive adaptation results [Takken *et al.*, (2003)].

Sports training is a scientifically based strategy to athletic growth that allows players to generate remarkable and record-breaking athletic performances by methodically developing mental and physical efficiency, capability, and drive. Physical training is a critical component of high-performance training. Physical training is to increase an athlete's physiological capacity and improve their biomotor skills [Harre, (1982)].

The sport itself is the most sport-specific training that can be done. As specialized as it gets, sports-specific abilities are practiced for the sport. For instance, there are no kabaddi-specific workouts that can be done in the weight room other than skating

on the ice when playing ice kabaddi. Shooting the puck is no different. Not only do certain sports require distinct talents, but each sport also requires certain physical abilities. Sport-specific abilities (shooting a basketball, kho-kho, throwing a baseball, etc.) require sports training, and particular performance enhancements (foot speed, strength, power, etc.) require physical preparation.

It appears necessary to assess the competitors' psychomotor capabilities in addition to their fundamental somatic characteristics [Gorostiaga, *et al.*, (2005); Massaça, and Frago, (2011); and Justin, *et al.*, (2013)], motor skills [Hoff, and Almåsbygg, (1995); and Grigore, *et al.*, (2012)], and sports seniority [Kida, Oda, and Matsumura, (2005); and Nakamoto, and Mori, (2008)]. The skills that assist a competitor win a sporting event include the ability to anticipate the opponent's and the ball's movements, selective attention, response selection, perceptual speed, and a high degree of motor and sensory fitness [Kioumourtzoglou, *et al.*, (2012); and Paul, Garg, and Sandhu, (2012)]. Players with strong eye-hand coordination and the capacity to gather visual information about an approaching item are able to respond to outside stimuli more quickly and modify their motions to fit the circumstances on the court.

METHODS

The goal of this study was to determine how game specific training with and without psychomotor skill training, affected speed and stress. 45 male kabaddi

players who were enrolled at Dhanalakshmi Colleges, Perambalur, those who were represented in inter-collegiate tournaments, for the academic year 2023–2024 were chosen as subjects to fulfil the goal. They were divided into three equal groups of fifteen each and further divided as two experimental groups and one control group, in which the group I (n=15) underwent game specific training with psychomotor skills training, group II (n = 15) underwent game specific training for three days (alternative days) per week for twelve weeks, and group III (n=15) acted as control which did not participate in any special training apart from the regular curricular activities.

There will be changes to motor fitness and psychological variables and systems with every training regimen. After consulting with the specialists, the researchers decided to use the following variables as criteria: 1. speed, and 2. Stress.

ANALYSIS OF THE DATA

The differences, if any, between the corrected post test means on several criteria variables were examined independently using analysis of covariance. The Scheffé S test was used as a post-hoc test if the adjusted post test mean's "F" ratio was shown to be significant. To evaluate the "F" ratio discovered using analysis of covariance, the level of significance was set at .05 level of confidence.

Table – I Analysis of Covariance and 'F' ratio for Speed and Stress of Sports Specific Training with and without Psychomotor Training Groups, and Control Group

Variable Name	Group Name	Exp. Group - I	Exp. Group - II	Control Group	'F' Ratio
Speed (in Seconds)	Pre-test Mean ± S.D.	7.40 ± 0.16	7.38 ± 0.17	7.41 ± 0.18	0.089
	Post-test Mean ± S.D.	7.37 ± 0.16	7.34 ± 0.17	7.39 ± 0.16	0.38
	Adj. Post-test Mean	7.363	7.369	7.388	4.84*
Stress (in Points)	Pre-test Mean ± S.D.	27.80 ± 2.21	27.47 ± 2.33	27.87 ± 1.51	0.17
	Post-test Mean ± S.D.	25.20 ± 2.18	25.07 ± 2.52	28.33 ± 1.54	11.41*
	Adj. Post-test Mean	25.115	25.301	28.184	68.15*

* Significant at .05 level of confidence. (The table value required for significance at .05 level of confidence with df 2 and 42 and 2 and 41 were 3.21 and 3.23 respectively).

Table – I shows that the speed pre- and post-test "F" ratio value of 0.089 and 0.38 was less than the necessary table value of 3.21 for significant with df 2 and 42 at 0.05 level of confidence. For the adjusted post-test mean 'F' ratio value of 4.84 was greater than the necessary table value of 3.24 for significant. The stress pre-test values 'F' ratio was 0.17 which was insignificant. For post-test and

adjusted post-test mean 'F' ratio values of stress were 11.41 and 68.15 was greater than the necessary table value of 3.24 for significant. Further, to find out which training group has significant improvement on selected criterion variables, Scheffe S post-hoc test was applied and presented in table – II.

Table – II Scheffé S Test for the Difference Between the Adjusted Post-Test Mean of Speed and Stress

Exp. Group - I	Exp. Group – II	Control Group	Mean Difference	Confidence Interval at 0.05 level
Adjusted Post-test Mean for Speed				
7.363		7.388	0.025*	0.024
7.363	7.359		0.004	0.024
	7.359	7.388	0.029*	0.024
Adjusted Post-test Mean for Stress				
25.115		28.184	3.069*	1.496
25.115	25.301		0.186*	1.496
	25.301	28.184	2.883*	1.496

* Significant at 0.05 level of confidence.

RESULTS

The corrected post-test mean differences in speed between experimental groups I and II and the control group were 0.025 and 0.029, respectively, and were significant at the .05 level of confidence. However, a mean difference of 0.004 was discovered between experimental groups I and II. This difference was not statistically significant. The results of the study indicate that speed is significantly increased by game specific training with and without psychomotor skills training.

The corrected post-test mean differences in stress between experimental groups I and II, control group were 3.609 and 2.883, respectively, and were significant at the 0.05 level of confidence. However, a mean difference of 0.186 was discovered between experimental groups I and II. This difference was not statistically significant. The results of the study indicate that stress is significantly decreased by game specific training with and without psychomotor skills training.

CONCLUSIONS

After completing strength and plyometric training, the study's results shown a notable increase in speed. The findings of Razia, (2015), found that specific training has improved the performance of speed. Patnaik, *et al.*, (2024); and Bhowmik, (2018) found that specific training has improved the speed. Mahesh, (2023); found that there was a significant improvement in speed after the resistance training and specific skill training followed by battle rope training. Sivakumar and Logeswaran, (2017) found that the stress among kabaddi players have reduced followed by game specific training. Bovas, (2020) found that the circuit training has decreased the stress among kabaddi players

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