

Influence of Different Phases of Resistance Training on Selected Psychological Variables of Kabaddi Players

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ABSTRACT

The aim of this study is to find out the effect of changes during different phases of training on psychological variables, anxiety and achievement motivation of kabaddi players. 30 Kabaddi players who represented their colleges at inter collegiate level competitions were selected and given resistance training under different phases, conditioning, intensive, in-season, and off season by manipulating the load, intensities and frequencies of selected weight training exercises. Psychological variables anxiety and achievement motivation were measured through standard questionnaires prior to different phases and training which formed the initial scores and immediately after each season of resistance training phases. The collected data on selected psychological variables anxiety and achievement motivation was statistically analysed using Repeated Measures of ANOVA. Results proved that different phases of training altered anxiety and there were significant differences between initial and in-season phase. Similarly different phases of training improved achievement motivation and there was significant difference between initial scores and in season training. It was concluded that the different phases of training can be utilized for stabilizing competition anxiety and achievement motiaiton of kabaddi players.

Key Words: Resistance Training, Conditioning Phase, Intensive Phase, In-season Phase, Off-season Phase, Anxiety, Achievement Motivation

INTRODUCTION

Sports are a psycho-social activity. It has both psychological and social dimensions, besides, physical, physiological and technical aspects. The main objective of sports is to develop physical mental health. The individuals are prepared to develop the skills through competition in games. Competition might result in victory and defeat as well. The aim of competition is not only to develop the spirit of sportsmanship with which they play and perform their best in the competition. Coaches, physical educationists and sports scientists have always expressed a great need to know more about those psychological principles, which are helpful in improving the psychomotor co-ordination of the players (Agyajit Singh, 1992:15).

There are different methods of specific training programmes available for the development of speed, muscular strength level, endurance and cardio respiratory endurance to their maximum. Training methods includes weight training, interval training, fartlek training, circuit training, isotonic training, isometric training, isokinetic training. Vigorous training, the blood circulation quickness, blood and lymph stream through the muscle, supply the cells with oxygen and nutrition removing waste products. The heart activity is accelerated exercise and strengthening its own fibers. Exercise also stimulates growth, and strengthens the bones, muscles, ligaments and tendons (Hardayal Singh, 1991). Different activities can be carried out with different intensities which may have different effect in organism. It is better to start gradually and take more time reaching the objectives than to start at a high level drop out because of injury caused by either the intensity or frequency of the programme. (Morehouse and Gross, 1975). Thus, training programmes forms different phases.

Sports training program phases revolve around peaking for major competitions phases generally progress as follows: The first of the phases of training prepares the athlete for more intensive weight training with heavier weight loads. It is referred to as the conditioning phase, the hypertrophy phase, or the starter phase. Fitness training programs typically advance to a more intensive training phase where weight loads are consistently increased until fitness training goals are met under intensive training phase. Then the athlete performs a maintenance or in-season phase in which the athlete stabilize the level of performance which enables for major competition at the right time. The off season phase permits for an active rest so that the athlete can gain recovery in preparation for the next season phase. To phase at the desired level of strength, (Fleck and Kraemer,1996; Powers et al.,2006; Schmidt and Wrisberg, 2000) different phases of training progress from low intensity and high volume, to high intensity and low volume. In other words, do more repetitions with lighter weights early in training, and fewer repetitions with heavier weights later in training. Testing after each of the phases of training will help one make sound decisions for adjusting the training programme in subsequent phases. This is how one personalize the training programme to promote continuous improvement toward the goals.

Spielberger (1966) defines competitive anxiety as the tendency to perceive competitive situations as threatening and to respond to these situations with feelings of apprehension or tensions. According to Spielberger (1966), fear of failure and fear of physical harm appears to be the most prevalent determinants of state in competitive sport. If anxiety becomes very high, that person loses complete control of himself and the situation. Anxiety, Many younger sports personnel thrive on the pressure and tension associated with competitive sports. However many find that the

experience precipitates feelings of apprehension and anxiety. (Rainer, M. 1977) Herbert, John, (1997) in their research stated that the factor of competitive anxiety has been dissected into two segments -- somatic and cognitive anxiety. Cognitive anxiety is characterized by negative expectations, lack of concentration, and images of failure. Somatic anxiety refers to physiological symptoms such as sweaty hands and tension and other physiologic changes. In order to chalk out optimal performance, the precursors of anxiety need to be sought out. The temporal patterning of anxiety, before, during and after competition has been receiving a lot of attention in research.

Achievement motivation refers to the tendency to strive to achieve or excel in whatever challenge is presented. (Morris, 1985) Motivation is a mover of action. It is a derive force in a men which decides the direction of his behaviour towards amend or goal. In the sports and games activities the desire to improve his performance in games situation or to get a good job in anywhere or to become the team captain and so is known as achievement motive. In general achievement motive is expectancy of finding satisfaction in mastery of difficult and challenging performance where as in the field of education or sports in particular its stands for the pursuit of excellence.

The investigator found very few attempts were made to find out the effect of different phases of training on selected psychological variables, anxiety and achievement motivation among kabaddi players. The purposes of this research was to find out the influence of different phases of resistance training on selected psychological variables, anxiety and achievement motivation among kabaddi players.

METHODOLOGY

To achieve the purpose of this study, 30 men kabaddi players, who represented their colleges in inter collegiate level competitions were selected and tested of psychological variables, anxiety and achievement motivation using standard tests. which formed the initial scores of the subjects. The subjects underwent resistance training under four phases, namely, conditioning, intensive, in-season and off-season phases. Each phase of training lasted for 3 weeks and the subjects were tested of their selected psychological variables, anxiety and achievement motivation, on completion of each phase of training. The investigator selected five resistance (weight training) exercises, namely, Military Press, Barebell Rows, Squats, Standing Calf Raises and Leg Press and determined the 1 RM for each resistance exercise using Brzycki Formula (Brzycki, 1998) . The aim of conditioning phase, was to make the body to adjust to the stress of weight training, for this purpose the subjects, hence the subjects were given 40% to 60% of 1 RM with different repetitions. The intensive phase was to gain greater levels of strength, power and other qualities that transfer from weight training to sport skills, hence the subjects were trained with resistance training of 60% to 80% of 1 RM with different repetitions and varied frequencies. The in-season phase aimed at stabilizing the level of performance on the fitness components built during the previous phases and gain a competitive edge for peaking for major competitions at the right time, hence the subjects were trained with resistance training of 60% to 80% of 1 RM with increased repetitions and varied frequencies. The off-season phase would permit the subjects for an active rest to get recovery in preparation for the next pre-season phase, which would be otherwise called the detraining phase. The obtained data of initial (1st day of the training session), end of the 3rd week (conditioning phase), end of 6th week (intensive phase), end of 9th week (in-season phase) and end of 12th week (off-season phase) on selected criterion variables were subjected to statistical treatment using repeated ANOVA and the results arrived at.

RESULTS

Tab: 1: Results on Repeated Analysis of Variance on Psychological Variables, Anxiety and Achievement Motivation

Calculation of Repeated Analysis of Variance on Anxiety									
Means on Completion of Different Phases					Source of Variance	Sum of Squares	df	Means Squares	F
Initial	Conditioning	Intensive	In-season	Off Season					
46.63	45.9	46.27	43.03	44.07	Subjects	458.40	29		3.42*
					Trials	237.13	4	59.28	
					Residuals	2512.73	145	17.33	
					Total	2734.00	149		
Calculation of Repeated Analysis of Variance on Achievement Motivation									
12.9	13.5	13.67	14.43	13.47	Subjects	42.99	29		3.78*
					Trials	36.49	4	9.12	
					Residuals	349.69	145	2.41	
					Total	356.19	149		

Required $F_{(0.05), (4,145)} = 2.35$ *Significant

Tab 2: Scheffe’s Post Hoc Analysis Results on Psychological Variables

Paired Mean Comparisons on Anxiety						
Means on Completion of Different Phases					Mean Difference	Reqd C. I
Initial	Conditioning	Intensive	In-season	Off Season		
21.39	20.78				0.73	3.57
21.39		20.25			1.37	3.57
21.39			19.34		3.60*	3.57
21.39				19.89	2.57	3.57
	20.78	20.25			0.63	3.57
	20.78		19.34		2.87	3.57
	20.78			19.89	1.83	3.57

		20.25	19.34		2.23	3.57
		20.25		19.89	1.20	3.57
			19.34	19.89	-1.03	3.57
Paired Mean Comparisons on Achievement Motivation						
12.9	13.5				-0.60	1.33
12.9		13.67			-0.77	1.33
12.9			14.43		-1.53*	1.33
12.9				13.47	-0.57	1.33
	13.5	13.67			-0.17	1.33
	13.5		14.43		-0.93	1.33
	13.5			13.47	0.03	1.33
		13.67	14.43		-0.77	1.33
		13.67		13.47	0.20	1.33
			14.43	13.47	0.97	1.33

* Significant

DISCUSSIONS

The results presented in Table I proved that the obtained F value of 3.42 was greater than the required table value of 2.35 with degrees of freedom 4, and 145 at 0.05 level. And it was proved that different phases of resistance training significantly altered the anxiety level of kabaddi players. Results were subjected to statistical post hoc analysis using Scheffe's confidence interval test and the results presented in Table 2 proved that there was significant difference between initial scores and in-season phase scores as the obtained value of 3.6 was greater than the required confidence interval value of 3.57. The results proved that due to different phases of resistance training, the psychological variable, anxiety was gradually altered at every phase of the training comparing to initial scores. Though there was reduction in all the phases comparing to initial scores, the difference between initial and in-season phase alone was significant.

The results on achievement motivation proved that the obtained F value of 3.78 was greater than the required table value of value of 1.33 with degrees of freedom 4, and 145 at 0.05 level. This proved that there was significant alteration in achievement motivation due to different phases of resistance training. The results proved that due to different phases of resistance training, the psychological variable, achievement motivation was gradually improved at every phase of the training comparing to initial scores. Though there was improvement in all the phases comparing to initial scores, the difference between initial and in-season phase alone was significant.

In this study, the investigator arranged the training schedule as suggested by Powers et al.,(2006) ; Schmidt and Wrisberg, (2000) different phases of training progress from low intensity and high volume, to high intensity and low volume, this significantly altered selected psychological variables, anxiety and achievement motivation. The results of this study is in agreement with the findings of the Padilla et al. (2001) Padilla ,et al. (2008) who found load zones reflected the psychological demands of different phases of training which could be useful for planning pre-competition training strategies.

CONCLUSIONS

It was concluded that different phases of resistance training can be better utilized for improving psychological variables, anxiety and achievement motivation of kabaddi players

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