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## Effect of 6 weeks battle rope training on selected psychological variables among inter collegiate volleyball players

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### Abstract

The purpose of the study was to find out the impact of 6 weeks battle rope training on selected psychological variables among inter collegiate volleyball players. To achieve the purpose of the study thirty inter collegiate volleyball men players were randomly selected as subjects from the University of Madras and their aged between 18 to 25 years. The selected subjects were randomly assigned into two equal groups of 15 each, such as experimental and control group. The experimental group participated in the battle rope training for 6 weeks, practice session for thrice a week, each session lasted 45 minutes and the control group did not participate in any kind of special training programme apart from the daily physical activities. The selected variables such as aggression and sports achievement motivation were measured by Buss, A. H., & Perry, M. (1992). and Dr. M. L. Kamlesh (1990) Questionnaires. The subjects of two groups were tested on selected variables prior and immediately after the training period. The collected data were analysed statistically through analyze of covariance (ANCOVA) to find the significance difference. The 0.05 level of confidence was fixed to test the level of significance difference, the result of the study showed that systematic practice of 6 weeks battle rope training significance differences on selected psychological variables such as aggression and sports achievement motivation of inter collegiate volleyball players.

**Keywords:** Battle rope training, aggression and sports achievement motivation

### Introduction

Sports and games have been part of human society for thousands of years. The importance of these things should not be underestimated. Much of young children's learning comes from participating in sports and games, and this same participation as adults can lead to happier, healthier and more productive lives.

Volleyball is a popular team sport that is played by using a net and a ball. There are two teams on either side of the net that divides the court from the centre. The game involves hitting the ball with the fist across the net to the other team's court, and the other team hitting it back across the net within bounds. The ball has to be hit across the net within three tries, ensuring that the ball does not hit the ground.

Volleyball came to India through Physical Education trainers around seventy years ago. It gained popularity quite rapidly owing to its affordability and interest factor. Eventually, in 1951, the Volleyball Federation of India was established, the only controlling authority of the sport in India. Volleyball has garnered a lot of popularity in both the urban and rural areas. (Yogems)

Rope training has increased in popularity in numerous areas from general health and fitness trainees to professional athletes. Ropes are used for multiple purposes, that is, climbing, pulling, and suspension training. In fact, ropes have been used historically in various settings including physical education classes, gymnastics training, and the training of tactical and combat athletes. However, battling ropes are most commonly used for development of endurance, explosive power, respiratory rate, vital capacity.

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## Methodology

To achieve the purpose of the study thirty inter collegiate volleyball players were randomly selected as subjects from University of Madras and their aged between 18 to 25 years. The selected subjects were randomly assigned into two equal groups of 15 each, such as experimental and control group. The experimental group participated in the battle rope training for 6 weeks, practice session for thrice a week, each section lasted 45minutes, The control group did not participate in any kind of special training programme apart from the daily physical activities. The selected variables such as aggression and sports achievement motivation were measured by Questionnaires. The subjects of two groups were tested on selected variables prior and immediately after the training period.

## Training Programme

During the training period the experimental group (BTG) underwent 6 weeks of Battle rope training programmes in addition to their daily routine activities as per the schedule. The duration of training were planned for 45 minutes that is from 7.00am to 7.45am on Mondays, Wednesdays and Fridays. All the subjects involved in this study were carefully

monitored throughout the training programmes, intensity of the experimental training was based on difficulty of the exercise, sets, repetitions and recovery time. Intensity effort level was exerted while performing an exercise. The intensity of workout can be changed by changing the exercise order, or increasing or decreasing the number of exercise, repetitions, weight or rest period.

Each session 45 minutes consist of 5 min warm up exercise, Battle rope training such as battle rope slam, snakes on the floor, jump slam, rotational slam, alternative waves, rope claps, squat alternative slam, Russian twist and finally cool down and stretching exercises for recovery purpose. After completion of 6 weeks of battle rope training period, the participants were retested as the pre test.

## Statistical Technique

The collected data were analysed statistically through analyze of covariance (ANCOVA) to find the significance difference.

## Analysis of Data

The data collected prior and after the experimental periods on aggression experimental group and control group were analysed and presented in table – 1.

**Table 1:** Analysis of Covariance for Pre and Post Data on Aggression

Test	Battle rope Group	Control group	Source of variance	Sum of Squares	df	Mean square	F
Pre-test mean	88.67	84.40	Between	136	1	136	2.76
			Within	1382	28	49	
Post-test mean	71.13	83.87	Between	1216	1	1216	28.33
			Within	1201	28	42	
Adjusted mean	69.45	85.54	Between	1767	1	1767	138.42
			Within	344	27	12	

\*significant.at 0.05 level of confidence

## Discussion on Findings of Aggression

The obtained F value on pre test scores 2.76 was lesser than the required F value of 3.22 to be significant at 0.05 level. This proved that there was no significant difference between the groups at initial stage and the randomization at the initial stage was equal. The post test scores analysis proved that there was significant difference between the groups as the obtained F value at 28.33 was greater than the required F

value at 3.22. This proved that the differences between the post test mean at the subjects were significant. Taking into consideration the pre and post test scores among the groups, adjusted mean scores were calculated and subjected to statistical treatment. The obtained F value at 138.42 was greater than the required F value at 3.22. This proved that there was Significant differences among the means due to six weeks of battle rope training on aggression.

**Table 2:** Analysis of Covariance for Pre and Post Data on Sports Achievement Motivation

Test	Battle rope Group	Control group	Source of variance	Sum of Squares	df	Mean square	F
Pre-test mean	18.87	19.13	Between	0.533	1	0.533	0.06
			Within	279	28	9.98	
Post-test mean	19.27	32.87	Between	1387	1	1387	141.41
			Within	274	28	9.98	
Adjusted mean	19.29	32.83	Between	1371	1	1371	142.67
			Within	259.64	27	27	

## Discussion on Findings of Sports Achievement Motivation

The obtained F value on pre test scores 0.06 was lesser than the required F value of 3.22 to be significant at 0.05 level. This proved that there was no significant difference between the groups at initial stage and the randomization at the initial stage was equal. The post test scores analysis proved that there was significant difference between the groups as the obtained F value at 141.41 was greater than the required F value at 3.22. This proved that the differences between the post test mean at the subjects were significant. Taking into consideration the pre and post test scores among the groups, adjusted mean scores were calculated and subjected to

statistical treatment. The obtained F value at 142.67 was greater than the required F value at 3.22. This proved that there was Significant differences among the means due to eight weeks of battle rope training on sports achievement motivation.

## Conclusion

Recently the role of sports psychologist has been called to meet the increasing demand for controlling aggressive and to develop for sports achievement motivation of management of athletes performance. And sports psychologist have been needed to addressing this topic and provide strategies and

interventions for overcoming excessive aggression and improve sports achieve motivation and techniques for athletes. Further it was concluded that, due to 6 weeks of battle rope training showed the significant differences on selected psychological variables such as aggression and sports achievement motivation among inter collegiate level volleyball players.

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