



EFFECT OF JUMP ROPE TRAINING ON EXPLOSIVE POWER AMONG INTER- COLLEGIATE VOLLEYBALL PLAYERS



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Abstract

To achieve the purpose of the study was to effect of jump rope training on explosive power among inter-collegiate volleyball players. To achieve the purpose of the study, their age ranged from 18 to 25 years. Thirty subjects were selected at randomly. The study was conducted on 30 subjects from P.S.G College, Sri Krishna College, Dr. N.G.P College, and Bharathiar University Department. The selected subjects were divided into two equal groups consisting of fifteen each. No attempt was made to equate the groups. Experimental Group I underwent the jump rope Training group (JRTG), for three days a week and for a duration of 6 weeks. Group II acted as control group (CG), the subjects in control group were not engaged in any training programme other than their regular work. At the end of the treatment period, as post-test, the subjects belonging to the treatment group namely experimental group-I Jump rope Training Group (JRTG) and group II Control Group (CG) were tested on Explosive Power. Further, the group mean gains pre and post-test recorded by two groups during the experimental period of six weeks to the criterion measures were tested for significance by applying 't' – test.

Key words: Jump rope, Explosive power



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Introduction

Rope skipping (also called rope jumping) is a gymnastic competitive sport, for individuals and teams, which requires – in some cases – even extreme agility. It is extremely enjoyably to watch and very inspirational. Check out 'rope skipping' and 'Buddy Lee' on the internet. However, even if exercisers may be able to use some of the tricks, rope skipping is not for everyone, as you need to be fit and sturdy to perform many of the movements, e.g. hopping on your back or doing air turns (**Quinn, 2008**). This may consist of one participant turning and jumping the rope, or a minimum of three participants taking turns, two of whom turn the rope while one or more jumps. This is called long rope. Sometimes the latter is played with two turning ropes; this form of the activity is called Double Dutch and is more difficult (**Loredo et al., 1996**).

Jump-rope rhymes are often chanted beginning when the skipper jumps in and ending when the skipper messes up.

Rope training has an important role in developing body coordination and strengthens the general athletic condition. It is used as a warm-up or coordination method in exercise (**Lee, 2006**).

A rope that is twirled and jumped over in children's games or in conditioning exercises, the jump rope is a tried and true method for improving conditioning and coordination. If you have never jumped rope before, you can expect a challenge. The rope can be very frustrating to a beginner. You will not become proficient with the rope overnight. It takes time and practice. It

has been said before that practice is the mother of all skills. These words definitely apply to jump rope training.

There are many different rope styles to choose from. A few examples include:

- Weighted ropes
- Speed ropes
- Beaded plastic ropes

Many athletes attempt the rope, get frustrated, and quickly find alternative conditioning tools. Do not allow your frustration to interfere with your development as an athlete.

Skipping may be used for a cardiovascular workout, similar to jogging or bicycle riding. This aerobic exercise can achieve a "burn rate" of up to 700 calories per hour of vigorous activity, with about 0.1 calories consumed per jump. Ten minutes of jumping rope is roughly the equivalent of running an eight-minute mile. Jumping rope for 15–20 minutes is enough to burn off the calories from a candy bar.

Weighted jump ropes may help develop upper body muscle tone and endurance. These ropes are not for beginners, and they aren't necessary for those who want an agility workout. If you do buy a weighted rope, be sure the weight is in the rope rather than the handles to avoid straining the wrists, elbows and shoulders (Quinn, 2008).

The purpose of the study was to find out the effect of jump rope training on explosive power among inter-collegiate volleyball players.

Methodology

To fulfill the purpose of the study thirty male volleyball players were randomly selected from the inter-collegiate volleyball tournaments held in Bharathiar University, Coimbatore, P.S.G CAS, Dr. NGP CAS, Sri Krishna CAS and Bharathiar University Departments volleyball players have been selected for this study. Their age ranged between 18 and 25 years. The subjects had a training age of at least four years in volleyball and only those who represented their respective college teams were taken as subjects. A series of test was carried out on each participant. Explosive power was assessed by sergeant jump test. Group I underwent jump rope training (JRTG) and group II acted as a control (CG) who did not participate in any specific training. The experimental training group participated in Jump rope training for three days a week,

one session per day and for 6 weeks each session lasted 60 minutes. The control group maintained their daily routine activities and no special training was given.

Results and Discussion

All the subjects were tested on selected criterion variable prior to and immediately after the training period. The collected data will be comparing on explosive power to analyses in “t- ratio” will be used in 0.05 level of confidence.

Table - I

**PRE TEST AND POST TEST MEAN VALUES OF JUMP ROPE TRAINING GROUP ON
SELECTED EXPLOSIVE POWER AMONG INTER-COLLEGIATE VOLLEYBALL
PLAYERS**

S. No	Variables	Pre test Mean \pm SD	Post test Mean \pm SD	Diff	SE	‘t’ – ratio
1	Explosive Power (in meters)	3.85 \pm 1.07	4.53 \pm 1.19	2.05	0.054	12.41*

* significant level at 0.05 confidence of (2.96)

The obtained ‘t’ ratios were 12.41 for Explosive Power among inter-collegiate Volleyball players.

The obtained ‘t’ – ratios on Explosive power was greater than the critical value of 2.96 it was found to be statistically significant at 0.05 level of confidence for degrees of freedom 1 and 28. It was observed that the mean gains and losses statistically significant resulting that six weeks practice of jump rope training showed positive sign as having the significant improvement in Explosive power (7.81%; $p < 0.05$), among inter-collegiate Volleyball players.

Table - II
PRE TEST AND POST TEST MEAN VALUES OF CONTROL GROUP ON
SELECTED EXPLOSIVE POWER AMONG INTER-COLLEGIATE
VOLLEYBALL PLAYERS

S. No	Variables	Pre-test Mean \pm SD	Post-test Mean \pm SD	Diff	SE	't' – ratio
1	Explosive Power (in meters)	3.77 \pm 0.91	3.74 \pm 1.71	0.1	0.09	1.16

The obtained 't' ratios were 1.16 for Explosive Power among inter-collegiate Volleyball players.

The obtained 't'- ratios on Explosive Power was lesser than the critical value of 2.96 it was found to be statistically insignificant at 0.05 level of confidence for degrees of freedom 1 and 28. It was observed that the mean gains and losses statistically insignificant resulting of control group showed negative sign as having the insignificant improvement in Explosive power (0.42%; $p < 0.05$) among inter-collegiate Volleyball players.

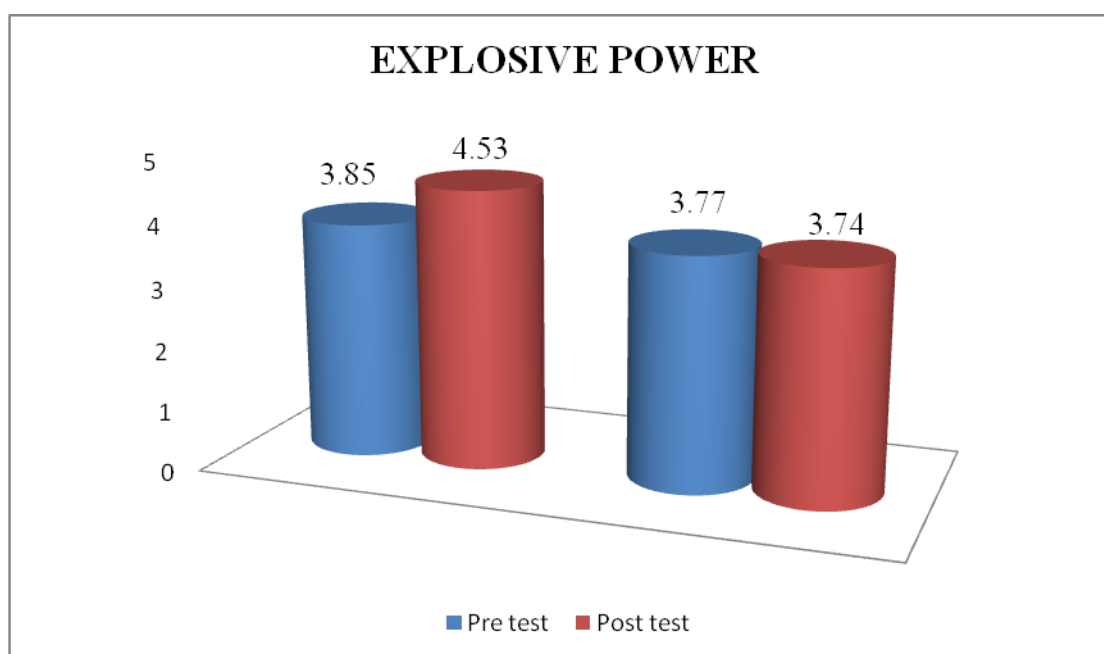


Figure I The Pre test and Post-test mean values of jump rope training group on selected explosive power is graphically represented in the figure I

The result of the study showed that the Jump Rope training (JRTG) has produced a significant improvement on Explosive power (7.81%; $p < 0.05$), among inter-collegiate Volleyball players.

Conclusion

In light of the above findings of the present study the following conclusion have been made

1. It was concluded that the Jump Rope Training has produced a significant improvement on Explosive Power among inter-collegiate Volleyball players.

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