

Impact of Resistance Training with and Without Psychological Training on Speed of women Football Players

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Abstract- The purpose of the study was to analyze the Influence of specific resistance with and without psychological training on speed among state level women football players. To achieve the purpose of the study, forty five female football players at school level were selected as subjects. The age, height and weight of the subjects ranged from 18 to 21 years, 155 to 165 centimeters and 45 to 55 kilograms respectively. The selected subjects were randomly assigned into three equal groups of fifteen each (n=15) at random. Group-I Specific Resistance Training, Group-II Specific Resistance with Psychological Training, Group-III acted as control. The data collected from the four groups prior to and post experimentation were statistically analyzed to find out the significant difference if any, by applying the Analysis of Covariance (ANCOVA). When the obtained 'F' ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any, at 0.05 levels. The result of the study proved that due to SRT, SRPT group of women soccer player's speed was greatly improved than the control group.

Key words: Specific Resistance Training, Psychological Training & Speed

1.INTRODUCTION

Resistance training will develop strength. If there is an increase in muscle mass as a result of training this is called hypertrophy. Muscle hypertrophy is associated more as a result of training for maximal and elastic strength rather than strength endurance. When strength training stops the law of reversibility which indicates that some strength will be lost and the muscle mass may reduced. Reduction in the muscle mass is known as atrophy. Muscle atrophy is a direct result of low or no activity and may be a factor in injury rehabilitation.

“Psychological skills training refers to the systematic and consistent practice of mental or psychological skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater sport and physical activity self-satisfaction” (Weinberg & Gould, 2007). Mentally, exercise provides an outlet for negative emotions such as frustration, anger, and irritability, thereby promoting a more positive mood and outlook. Exercise improves mood by producing positive biochemical changes in the body and brain. Regular exercise reduces the amount of adrenal hormones our body releases in response to stress. Also, with exercise, our body releases greater amounts of endorphins, the powerful, pain-relieving, mood-elevating chemicals in the brain.

2.METHODOLOGY

Participants and variables

The purpose of the study was to analyze the Influence of specific resistance with and without psychological training on speed among state level school women football players. To achieve the purpose of the study, forty five female football players at were selected as subjects. The age, height and weight of the subjects ranged from 17 to 19 years, 155 to 165 centimeters and 45 to 55 kilograms respectively. The selected subjects were randomly assigned into three equal groups of fifteen each (n=15) at random. Group-I Specific Resistance Training, Group-II Specific Resistance with Psychological Training, Group-III acted as control. The speed was measured through the 50 meter run test. The data collected from the four groups prior to and post experimentation were statistically analyzed

to find out the significant difference if any, by applying the Analysis of Covariance (ANCOVA). When the obtained 'F' ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any, at 0.05 levels. The result of the study proved that due to SRT, SRPT group of womensoccer player's speed was greatly improved than the control group.

TRAINING PROGRAMME

In this study, training was done under close supervision with frequent adjustments in training intensity to maintain the desired training stimulus. The training programmes were scheduled for one session a day each session lasted between forty to fifty minutes approximately including warming up and warming down. During the training period, the experimental groups underwent their respective training programme three days per week (alternative days) for twelve weeks in addition to their curriculum.

Group-I underwent specific resistance training was performed in Department of Physical education's gym the intensity of the training load increased progressively across the weeks, from one set of 8-10 repetitions at 65% 1-RM in week one to 3 sets of 8-10 repetitions at 90% 1-RM in week 10 with eight exercise (Push-up, chest press, Fly, Triceps curl, Lateral raise, dumbbell squats, walking lunges, calf raise, biceps curl and bent over row with dumbbell).

Group-II underwent specific resistance with psychological training; the training was executed in the in Department of Physical education's gym the intensity of the training load increased progressively across the weeks, from one set of 8-10 repetitions at 65% 1-RM in week one to 3 sets of 8-10 repetitions at 90% 1-RM in week 10 with eight exercise (*Push-up, chest press, Fly, Triceps curl, Lateral raise, dumbbell squats, walking lunges, calf raise, biceps curl and bent over row with dumbbell*). The psychological training activities are relaxation with background music, meditation, imagery and self-talk. Weekly three days undergone.

Group III Control group did not under go any training

STATISTICAL TECHNIQUE

The experimental design in this study was random group design involving 45 subjects, who were divided at random in to three group of fifteen each. The pretest means of the selected dependent variable was used as a covariate. In order to nullify the initial differences the data collected from the four groups prior to and post experimentation on selected dependent variables were statistically analyzed to find out the significant difference if any, by applying the analysis of covariance (ANCOVA). Since three groups were involved, whenever the obtained 'F' ratio for adjusted post test means was found to be significant, the Scheffe's test was applied as post hoc test to determine the paired mean differences. In all the cases level of confidence was fixed at 0.05 for significance.

3. RESULTS

Table-1 Analysis of Co-Variance(ANCOVA) on-Speed

	Specific Resistance Training	Specific Resistance & Psychological training	Control Group	SoV	SS	df	MS	'F' ratio
Pre-test Mean-SD	7.89	7.79	7.94	B	0.16	2	0.084	1.12
	0.25	0.30	0.26	W	3.13	42	0.075	
Post-test Mean-SD	7.20	6.92	7.99	B	9.29	2	4.65	80.25*
	0.15	0.26	0.28	W	2.43	42	0.058	
Adjusted-Post-test-Mean	7.19	6.94	7.97	B	8.32	2	4.16	78.77*
				W	2.16	41	0.053	

(Table value for df 2 & 42, 41 are 3.22, 3.23)*Significant (.05 level)

The ANCOVA-result proved that the predata-test means (SRT=7.89, SRPT=7.79 & CG=7.94) on speed of all 3-chosen groups insignificantly divided, as the derived 'F' value (1.12) is lower than the required value (df 2 & 42 =3.22).

The ANCOVA-result proved that the postdata-test means (SRT=7.20, SRPT=6.92 & CG=7.99) on speed of all 3-chosen groups significantly varied, as the derived 'F' value-(80.25) is higher than the required value (df 2 & 42 =3.22).

The ANCOVA-result proved that the adjusted-final means (SRT=7.19, SRPT=6.94 & CG=7.97) on speed of all 3-chosen groups significantly differs, as the

derived 'F' value (78.77) is better than the required value ($df2 \ \& \ 41 = 3.23$).

As the adjusted final means is significant, the follow up test was applied as put on view in table-2.

Table –2 Scheffe’s-Test Result on-Speed

Specific Resistance Training	Specific Resistance & Psychological training	Control	MD	CI
7.19	6.94		0.25*	0.21
7.19		7.97	0.78*	0.21
	6.94	7.97	1.03	0.21

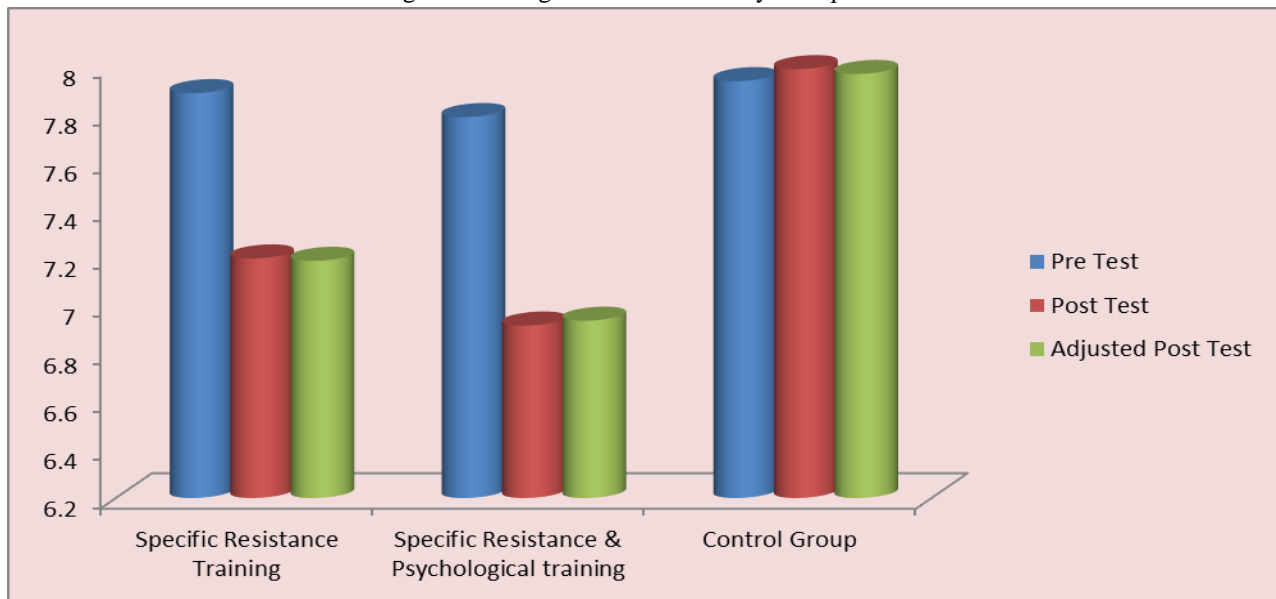
*Significant (.05)

Scheffe’s Test-proved that due to SRT (0.78), SRPT (1.03) the womensoccer player’s speed was greatly improved than the control group. Though, SRPT was

much better than SRT (MD=0.78) since the SRT and SRPT are higher than CI value (0.21).

Figure – A

Figure Showing WomenSoccer Player’s Speed



4. DISCUSSION

Speed

The result of the study brought the findings for womensoccer player’s on speed was greatly improved than the control group due to the twelve weeks of specific resistance training with and without psychological training. Though, specific resistance with psychological training (SRPT) was much better than specific resistance training (SRT) to improve speed in this study. The below studies are supporting our findings. Rohit and others (2021) evaluated the effects of complex training (CT) on sprint, jump, and change of direction (COD) ability among soccer players. The regular soccer training programs may be

supplemented with CT to improve sprint, jump, and COD performance. Sanchez and others (2020) examined the effects of 10 weeks (2/week) resistance training on stable vs. unstable surfaces on selected measures of physical performance in young male soccer players, regular soccer training was effective in improving repeated-sprint ability performance in youth male elite soccer.

Edgar and Mark (2020) Soccer involves explosive physical actions requiring strength, power, and agility for optimal performance. Power-band resistance training shows potential as an effective training methodology compared to conventional resistance training to improve performance variables in

university soccer players. Nirmaljeet and Rajkumar (2014) analysis of anxiety of football players at the different levels of competition. They realize that these characteristics of the participants contribute more towards their success than only physical fitness.

Samira and others (2013) compared aggression between the male and female, young and adult athletes competing in four different sports including volleyball, football, judo, and wushu. The comparison of the aggressive behaviors of male and female athletes shows that male athletes are more aggressive than female athletes are.

Vinu, W. (2019). S.Y.M underwent Sports activities, Yogic practice with mental training and group-2-S.Y underwent sports activities and yogic practice and group-3 C.G group did not participate in any of the training programme, and the training programme was scheduled for Five days a week S.Y.M group were made to play various games, practice yoga and mind training and S.Y group Played Games and practiced Yoga for a period of 10 months before and after the end of the training data was collected from the subjects of all the three groups. The collected data from the three groups were statistically analysed by using two-way ANOVA. To find out significant difference for the paired mean difference Scheffe's test used whenever required. S.Y.M group and S.Y showed significant change in overcoming from smoking addiction, But S.Y.M Group was remarkable better than other groups.

5. CONCLUSION

The conclusion of the study proved that due to SRT, SRPT group of womensoccer player's speed was greatly improved than the control group. Among the experimental the SRPT group had much better than the SRT group player to improve the speed.

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