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The Effect Of SAQ Training And Plyometric Training On Time Among Volleyball Players

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ABSTRACT

The subjects for this study were selected from Pachaiyappa's College for women Kancheepuram District, Tamilnadu, examined in **t**he effect of SAQ training and plyometric training on reaction time among volleyball Players. The investigator met the players of the institute and explained to them about the purpose and the nature of the study. Around sixty women players gave their voluntary consent to work as subjects for the study. Out of those volunteers five of them who were the age of 18-22 years were included for the study. The remaining sixty subjects (N=60) were divided random by using the table of randomly, they were divided randomly in to four groups as Group –I acted as, Control Group, Group –II undergone to SAQ Training, Group –III plyometric Training underwent and Group –IV gone into combined Training. the overall players were performed for the period of 8 weeks. Their written voluntary consent was obtained after clearly explaining the nature of the study, the training programme for the respective training groups and reaction time variable in which they have been tested. They were also informed that they were free to opt out of the study at any time if they feel any discomfort or any difficulty in continuing the training programme, but there were no dropouts throughout the period of study. Reaction time was measured by drop ruler test ,pre and post data were collected and analysed with SPSS of ANCOVA and proven that there was a significant improvement on reaction time due to training. **Keywords: Plyometric ,SAQ ,reaction time.**

Introduction

Reaction time (RT) is a measure of the quickness with which an organism responds to some sort of stimulus. RT is defined as the interval of time between the presentation of the stimulus and appearance of appropriate voluntary response in the subject.

In students how they performing their sports and games is in this research criterion variable analysed. Depends upon their reaction time they are seeking their developments-oriented skill performance which have been their specialized attitudes by that they are keep identifying their aim and focus toward its achievement as early as possible.

Hypotheses

There will be significant changes on bio motor, physiological and psychomotor reaction time variables namely and of volleyball players due to twelve weeks of combined and isolated SAQ and plyometric training among volley ball players.

There will be significant changes on psychomotor variables namely and of volleyball players due to twelve weeks of combined and isolated SAQ and plyometric training among volley ball players.

Reviews and discussion

Walankar Prachita P , Shetty Josheeta 2023 this study aims to compare the effect of plyometric exercises versus speed agility quickness (SAQ) training on agility, speed, power, dynamic balance and reaction time in badminton players. An experimental study was conducted in 36 amateur badminton player who were divided in 3 groups with 12 participants in each - Plyometric training group, SAQ training group and control group. All

received intervention for 6 weeks. The outcome measures used for Reaction time- simple visual reaction time task. both training showed equal effective improvement in reaction time in their research.

Nuannuan Deng, and others 2024 "Effects of plyometric training on skill-related physical fitness in badminton players Plyometric training (PT) is an effective method for improving physical fitness in athletes. However, its impact on skill related physical fitness in badminton players remains uncertain. howsoever significant result in their other variable but not in reaction time.

Amandeep Singh 2018 was to determine Efficacy of plyometric training on reaction time of male Footballers. The subjects were 10 male footballers of 18 to 27 years of age group from Akal College of Physical Education, Mastuana Sahib.and in his conclusion received the significant decrease results in the reaction time.

Amany Ibrahim and Gehad Nabia 2017 analysed in Speed, Agility, Quickness is a system of training that enhances performance levels in all sports. results revealed significant decrease results of reaction time.

Methods

The purpose of the study was to find out Isolated and combined effect of SAQ training and plyometric training on selected psychomotor reaction time variable among volleyball Players. The subjects for this study were selected from Pachaiyappa's College for women Kancheepuram District, Tamilnadu. The investigator met the players of the institute and explained to them about the purpose and the nature of the study. Around sixty women players gave their voluntary consent to work as subjects for the study. Out of those volunteers five of them who were the age of 17-25 years were included for this study. The remaining sixty subjects (N=60) were divided random by using the table of randomly, they were divided randomly in to four groups as Group –I acted as control group who were did not performed any training., Group –II undergone to SAQ Training, Group –III plyometric Training underwent and Group –IV gone into combined Training, the overall players were performed for the period of 12 weeks. Their written voluntary consent was obtained after clearly explaining the nature of the study, the training programme for the respective training groups and variables in which they have been tested. They were also informed that they were free to opt out of the study at any time if they feel any discomfort or any difficulty in continuing the training programme, but there were no dropouts throughout the period of study.

TABLE – I
ANALYSIS OF COVARIANCE OF DATA ON REACTION TIME BETWEEN PRE AND POSTTEST OF CG SAQTG PTG COMTG GROUPS

Test	CG	SAQTG	PTG	CTG	Sov	Sos	df	MS	Obtained 'F' ratio
Pretest Mean	0.25	0.29	0.26	0.27	B	0.04	3	0.13	0.98
SD	0.38	0.30	0.40	0.39	W	0.71	56	021	
Post test Mean	0.27	0.21	0.19	0.18	B	0.59	3	0.20	8.78*
SD	0.42	0.48	0.49	0.49	W	0.13	56	0.02	
Adjusted Post Mean	0.26	0.20	0.18	0.17	B	0.60	3	0.59	8.82*
					W	0.13	55	0.13	

*The table value required for significance at 0.05 levels with df 3 and 56 are 2.776 and 3 and 55 are 2.778 respectively.

The above table shows that the pretest means value on reaction time or CG, SAQ TG ,PTG, and CTG were 0.25, 0.29, 0.26 and 0.27 respectively. The obtained 'F' ratio value 0.80 for pretest scores on reaction time which lesser than the table value 0.98 for significance with df 3 and 56 at 0.05 level of confidence. The posttest means values on reaction time for CG, SAQ TG, PTG and CTG were 0.27,0.21, 0.19 and 0.18 respectively. The obtained 'F' ratio value 8.78 for post test scores on reaction time, which was greater than the table value 2.776

for significance with df 3 and 56 at 0.05 level of confidence. The adjusted post test means values on reaction time for CG, SAQTG, PTG and CTG were 0.26, 0.20, 0.18 and 0.17 respectively. The obtained 'F' ratio value 8.82 for adjusted post test scores on reaction time, which was greater than the table 2.778 for significance with df 3 and 55 at 0.05 level of confidence.

The results of the study showed that there was a significance difference of reaction time among CG, SAQ TG , PTG and CTG on reaction time. However, the improvement was in Favor of CTG.

Since four groups were involved the Scheffe's post hoc test was applied to find out the paired mean difference if any, and it is presented in the table.

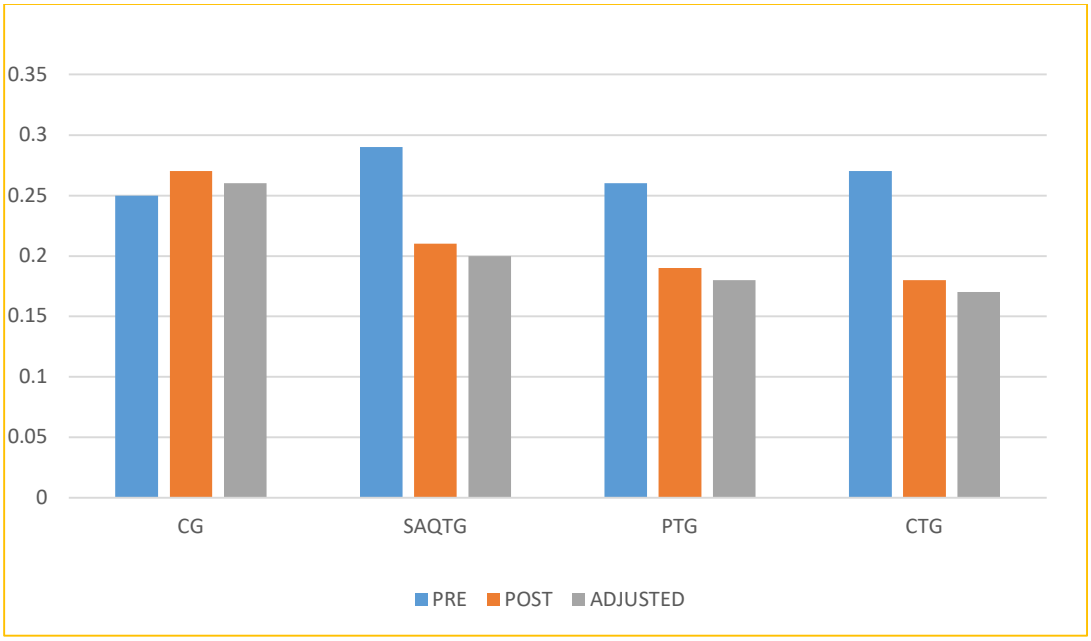
TABLE – II

SCHFEE'S POST HOC TEST FOR THE DIFFERENCE BETWEEN THREE PAIRED ADJUSTED POSTTEST MEANS OF REACTION TIME

Adjusted Posttest Mean Test				Mean Difference	Confidence Interval
CG	SAQTG	PTG	COM TG		
0.26	0.20	-	-	0.06	0.05
0.26	-	0.18	-	0.08	0.05
0.26	-	-	0.17	0.09	0.05
-	0.20	0.18	-	0.08	0.05
-	0.20	-	0.17	0.09	0.05
-	-	0.18	0.17	0.01	0.05

The table shows that the adjusted posttest means difference of CG, SAQTG, PTG, and COM TG were 0.26, 0.20, 0.18 and 0.17 respectively. They were greater than the confidence interval value 0.05 at 0.05 level, which indicates that there was a significant difference of decreased reaction time among all of CG , SAQTG, PTG, and COM TG.

FIGURE
PRE POST AND ADJUSTED POSTTEST MEAN VALUES ON REACTION TIME FOR ALL THE GROUPS



Results

There was a significant decrease in reaction time due to plyometric training, SAQ training and combined training of plyometric and SAQ training.

Conclusion

This research suggests and recommend the among in both trainings are advisable to improve reaction time though both combined training got favour result. This is furtherly supports to may researcher students' education departments and skill improvements of players.

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