

Effects of Swiss Ball Core Training and Floor Core Training on Psychological Variables among Volleyball Players

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Abstract

The purpose of this study was to find out the effects of Swiss ball core training and floor core training on Psychological variables among volleyball players. To achieve this purpose 45 volleyball players were selected as subjects and their ranged between 18-25 years male players. The subjects are categorized in to three groups named Swiss ball core training (SBCT) and floor core training (FCT), and control group (CG). The experimental groups participated in respective training for a period of six weeks. The control group did not participate in any of the training programme. The obtained data were subjected statistical analysis using analyzed using analysis of covariance ANCOVA. Whenever the obtained 'F' ratio was found to be significant, the Scheffe's post hoc test was used to find out the paired mean differences

Keywords: Swiss ball core training, Floor core training, Aggression, Self-Concept.

Introduction

In recent years core stability training is popular stabilize strength among the athletes. Swiss ball are being used strength the core muscles with an intention a establishing in unstable condition. This Swiss ball training enhances neuromuscular pathway, began to greater strength, proprioception and balance (check, 1999).it also used for therapeutic purpose. (jones1986) stated that adaption of swissball exercises results in better coordination among muscles which is key for better sports performance. It also supports to prevent low back pain which is quite rare common in sport persons. Core training is a multi-dimensional training programme done on a unique, reactive surface to enhance human performance and functional strength. The term 'core training' can be confusing, some refer to core training as any training focused at the central (trunk) region of the body, which includes the abdominals, hips and back. Several studies examined that the core training influenced in strength, flexibility, speed, proprioception etc...Some study has been conducted to find out other factors like psychological factors have chosen aggression and self concept which are much essential in sports performance. So I selected psychological variable for my study.

Aggression

Aggression is a behavior always refers to an act that is committed with the intent to inflict injury. (Siva J.M and Weinberg R.S , 1984). In competitive sports,

certain circumstance and situations at times catalyze aggressive behavior even in the meetst players. Wordy brawl amongst players, resentments against referees decision and tiffs with officials swearing and throwing invectives at opponents, however aggressive instincts will to win mobilizes the athlete energies to engage in goal directed behavior but disorderly behavior during a game may not be constructed as bad behavior.

Self Concept

Self-concept as the totality of altitude judgment and values of an individual relating to his behavior, ability and qualities, self-concept embraces the awareness of these variables and their calculation. (Lanson, 1971). Even through psychology and psychiatry could help in the more certain area of self concept, drives ,needs and attitudes, good self concept could be directly developed through successful participation in games and sports activities appropriate to sex role identification vigorous physical education activities reflecting physical fitness is mostly identified with the male sex ,hence the correlation between physical fitness and self concept should be greated in sports persons.(Werner,1972)

Reviews

Lust et.al. (2009) determined the extent to which throwing accuracy, core stability, and proprioception improved after completion of a 6-week training program increase was evident in all pretest-to-posttest results, with improvement ranging from 1.36% to 140%. Both of the 6-week training programs could

S NO	Psychological variables	Author	Scoring Key
1	Aggression	Guru Pyari Mathur and Raj Kumari Bhatnagar (2004).	The range of score was from 275 to 55
2	Self-concept	Mukta Rani Rastogi (1979)	Positive and negative statements.

Table-I

**Computation of Analysis of Covariance on Aggression of
Experimental Groups and Control Group
(In Numbers)**

Mean	Swiss ball Core Trg	Floor core Trg	Contr ol group	Source of Variance	Sum of Squares	D f	Mean Squares	Obtain ed F
Pre Test Mean	174.33	175.40	170.33	Between	214.0	2	107.02	0.32
				Within	14016.3	42	333.72	
Post Test Mean	167.07	168.40	167.67	Between	13.4	2	6.69	0.04
				Within	6595.9	42	157.04	
Adjust ed Post Test Mean	166.42	167.05	169.67	Between	87.7	2	43.86	3.84*
				Within	467.7	41	11.41	
Mean Diff	-7.27	-7.00	-2.67					

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22, 2 and 41 (df) =3.23. *Significant

From the table 1 it was observed that pre test showed no difference in aggression among the groups initially even there was no significantly difference in post test also. However there was significantly change in aggression among the groups in the adjust post mean. Further to determine which of the paired mean had a significant difference, the scheffes post hoc test is used.

Table-II

Scheffe's Confidence Interval Test Scores on Aggression

Means			Mean Difference	Required . C I
Swiss ball Core Trg	Floor core Trg	Control group		
166.42	167.05		-0.63	3.10
166.42		169.67	3.24*	3.10
	167.05	169.67	2.62	3.10

* Significant

x

The multiple mean Comparisons shows in above table 2 proved that there existed significant difference between the adjusted mean of Swiss ball training has reduced aggression level of the volleyball players.

Figure-1
Bar Diagram on Ordered Adjusted Means on Aggression of Experimental Groups and Control Group (Scores in Numbers)

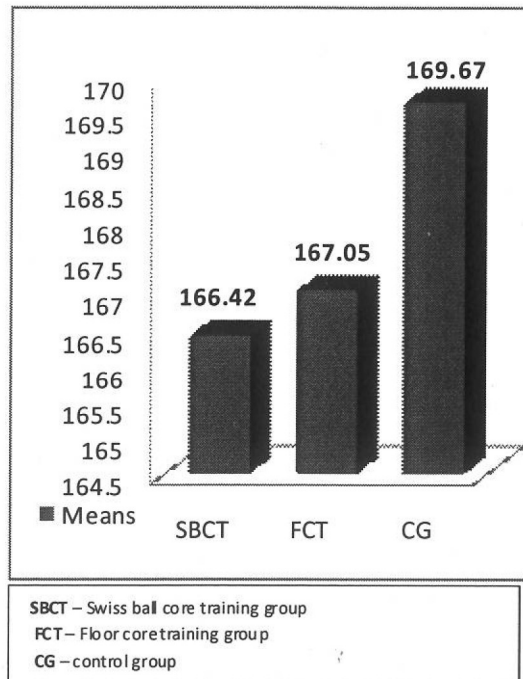


Table-III

Computation of Analysis of Covariance on Self Concept of Experimental Groups and Control Group (In Numbers)

Mean	Swiss ball Core Trg	Floor core Trg	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F
Pre Test Mean	49.13	51.13	49.53	Between	33.6	2	16.80	0.30
				Within	2337.2	42	55.65	
Post Test Mean	52.13	54.93	51.00	Between	123.0	2	61.49	1.30
				Within	1984.7	42	47.25	
Adjusted Post Test Mean	52.86	53.85	51.36	Between	46.7	2	23.37	12.54*
				Within	76.4	41	1.86	
Mean Diff	3.00	3.80	1.47					

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22, 2 and 41 (df) =3.23. *Significant

From the table 3 it was observed that pre test showed no difference in self concept among the groups initially even there was no significantly difference in post test also. However there was significantly change in self concept among the groups in the adjust post mean. Further to determine which of the paired mean had a significant difference, the scheffes post hoc test is used.

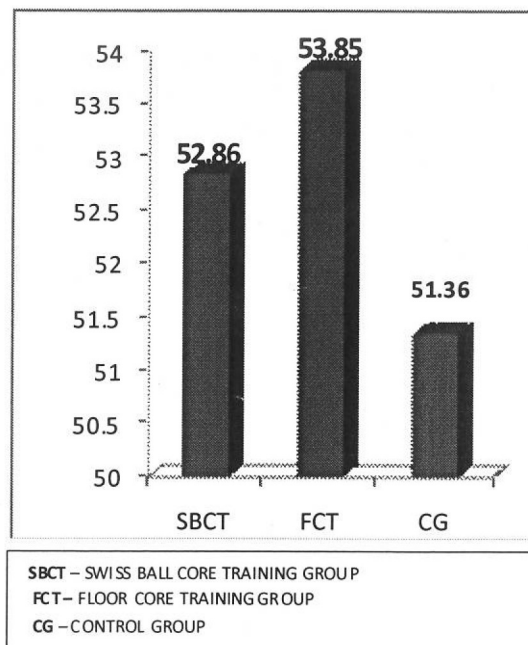
Table-IV
Scheffe's Confidence Interval Test Scores on Self Concept

Means			Mean Difference	Required . C I
Swiss ball Core Trg	Floor core Trg	Control group		
52.86	53.85		-0.99	1.25
52.86		51.36	1.49*	1.25
	53.85	51.36	2.49*	1.25

* Significant

The multiple mean Comparisons shows in above table 4 proved that there existed significant difference between the adjusted mean of floor core training has increases self concept level of the volleyball players.

Figure-2
Bar Diagram on Ordered Adjusted Means on Self Concept of Experimental Groups and Control Group (Scores in Numbers)



Discussion

The purpose of the study is to examine the Effect of Swiss ball Core Training and Floor core training on Selected Psychological variables among volleyball players. Results indicated that aggression and self concept are significantly improved by Swiss ball Core Training and Floor core training.

The finding that due to core training and circuit training psychology variables such as aggression and self esteem was improved among volleyball players (John f .curry 1986).overall results finding of psychology variables such as aggression and self concept is significantly improved due to core training among volleyball players almost all the previous research on aggression and self concept is focused on sports performance (Selva, 1984). he group with high self concept distinctly differ from average and low self-concept groups having significantly higher man physical fitness score and the group mean difference of physical fitness scores of average and low self concept group are not satisfactorily significant (Gill et al. 1988). This study also evidence that psychology variables such as aggression and self concept is also as influence factor among volleyball players.

Conclusion

The use of psychology in an athletic setting offers new possibilities to coaching science. Core training effectiveness has been demonstrated due to the possibility of enhancing neuromuscular performance, power output. The time needed for these adaptations to occur is relatively long as compared to the possibilities treatments. It should be recognised however, that vibrations need to be viewed not as a substitute tool of core exercise. But as a valid additional means to be implemented in a training routine in association with all the other traditional methodologies nowadays utilised. Different treatment protocols and the effects of the association of psychology with core training means for improving the knowledge in this interesting and exciting tool of sports science.It was concluded that psychological variable such as aggression was significantly altered /influenced by Swiss ball core training and Floor core training among volleyball players comparing to control group.It was concluded that psychological variable such as self concept was significantly influenced by Swiss ball core training and Floor core training among volleyball players comparing to control group

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