



Effect of Continuous Training with and Without Mental Training on Selected Psychomotor Variable among Inter Collegiate Women athletes

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ABSTRACT

The purpose of the study was to find out the effects of Continuous training with and without Mental Training on selected psychomotor variable among Inter Collegiate women athletes. To achieve the purpose of the study, forty five (N=45) women athlete students studying at K.S.R Educational Institutions, Tiruchengode, Namakkal, Tamilnadu, India who have participated inter collegiate athletic meet during the academic year 2011-2012 were selected randomly as subjects. The subjects were divided into three groups of fifteen each, namely Continuous training with mental training (n-15), Continuous training without mental training (n-15) and Control group. The training period was limited to twelve weeks. Among variable psychomotor variables only Reaction ability was selected as criterion variable and it was assessed by Ball reaction exercise test. The selected variable was assessed prior to and immediately after the training period. The data obtained from all the groups before and after the experimental period were statistically analyzed by Analysis of Covariance (ANCOVA). Whenever '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's differences. The level of confidence was fixed at 0.05 levels for all the cases to find out the significance. The results showed that there was a significant difference among Continuous training with Mental Training, Continuous training without Mental Training and control groups on Reaction ability among Inter Collegiate women athletes. Among the experimental groups, Continuous training with Mental Training group significantly improved in Reaction Ability than that of Continuous training without Mental Training.

Keywords : Continuous Training, Mental Training, Psychomotor , Reaction ability

INTRODUCTION

Continuous training can also help establish what is called a "fitness base," a foundation of exercise that athletes can depend on for further training. A person who knows he or she can comfortably jog for 45 minutes will be able to use that amount of time as a window for speed intervals or more intensive workouts later on. When the body is conditioned to keep moving for certain durations, it can adapt to filling those periods with different, more strenuous activities.

Continuous training is when low- to mid-intensity exercises are performed for more than 20 minutes without resting intervals. Generally, this type of training is used to prepare the body for sustained workouts such as marathons and triathlons, but can also be effective for more casual athletes. It allows the body to work from its aerobic energy stores to improve overall fitness and endurance. Chief benefits of continuous training include fat burning, muscle building, and increasing maximum aerobic potential.

Mental strength training involves learning and practicing mental skills that strengthen the ability to control thoughts, emotions and performance. As an example, if there are certain thoughts that tend to cause nervousness, an experienced athlete will know what those thoughts are, be able to recognize them during competition, be able to get those thoughts out of the mind, and then insert the proper thoughts. The result is an emotion more ideally suited to optimal performance. Mental Strength is developed by a special type of "adversity training" implemented in practice that prepares the person for upcoming performances (www.mentaltraininginc.com/)

The three learning domains psychomotor, cognitive and af-

fective domains, psychomotor, neuromotor or neuromotor domain is perhaps the most important of all these domains as far as sports and physical education is concerned. It encompasses both physical and motor elements. Every human action involves movement of some sort. Movement is an integral feature of a human being and is thus a tool of life. Sports and physical education is a science of perfect, deliberate and desirable movements. Motor performance depends on the physical components like strength, speed, power, agility, endurance, flexibility, balance, kinesthetic sense and coordinative abilities (*Fiske and Taylor, 1991*).

Psychomotor components work as the medium for the realization of cognitive and affective domains. These domains are inseparable identities and function in perfect unison and harmony with one another. These are concerned primarily with muscular concentration. The psychology and biomechanics of the muscular system is to be understood before understanding the nature of movement. Performance of motor skills is not a physical or mental response alone but involves neural, physiological and psychological aspects and is a continuum that runs the gamut from physical to cognitive and there is always integration between these aspects of human behavior (*Watson and Tellegen, 1985*).

METHODOLOGY

Aim of the study was to find out the effects of Continuous training with and without Mental Training on selected psychomotor variable among Inter Collegiate women athletes. To achieve the purpose of the study, forty five (N=45) women athlete students studying at K.S.R Educational Institutions, Tiruchengode, Namakkal, Tamilnadu, India who have participated inter collegiate athletic meet during the academic year

2011-2012 were selected randomly as subjects. The subjects were divided into three groups of fifteen each, namely Continuous training with mental training (n-15), Continuous training without mental training (n-15) and Control group. The training period was limited to twelve weeks. Among variable psychomotor variables only Reaction ability was selected as criterion variable and it was assessed by Ball reaction exercise test (Uppal, 2001). The selected variable was assessed prior to and immediately after the training period.

RESULTS AND DISCUSSION

The data obtained from all the groups before and after the

experimental period were statistically analyzed by Analysis of Covariance (ANCOVA). Whenever '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's differences. The level of confidence was fixed at 0.05 levels for all the cases to find out the significance.

The analysis of covariance on Reaction ability of the pre, post and adjusted test scores of Continuous Training with mental training, Continuous Training without mental training and Control group, have been analyzed and presented in table - I.

TABLE - I
ANALYSIS OF COVARIANCE OF THE DATA ON REACTION ABILITY OF PRE, POST AND ADJUSTED SCORES OF EXPERIMENTAL GROUPS AND CONTROL GROUP

Test	Continuous Training with Mental Training Group (Group-I) Expt. Group 'A'	Continuous Training without Mental Training (Group-II) Expt. Group 'B'	Control Group (Group- III)	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Mean	1.83	1.83	1.83	Between Groups	0.0003	2	0.0002	0.02
SD	±0.09	±0.09	±0.09	Within Groups	0.34	42	0.008	
Post-Test Mean	1.61	1.67	1.82	Between Groups	0.35	2	0.18	27.92*
SD	±0.08	±0.10	±0.08	Within Groups	0.26	42	0.006	
Adjusted Post-Test Mean	1.61	1.66	1.82	Between Sets	0.35	2	0.17	47.32*
				Within Sets	0.15	42	0.004	

* Significant at 0.05 level of confidence

Table value for df (2, 42) at 0.05 level = 3.22 Table value for df (2, 41) at 0.05 level = 3.23

The above table shows that the pre-test mean & standard deviation values on Reaction ability of experimental groups 'A' and 'B' and control group were 1.83, 1.83 & 1.83 and ±0.09, ±0.09 & ±0.09 respectively. The obtained 'F' ratio of 0.02 for pre-test scores was lesser than the table value of 3.22 for df 2 and 42 required for significance at 0.05 level of confidence on Reaction ability.

The post test mean & standard deviation values on Reaction ability of experimental groups 'A' and 'B' and control group were 1.61, 1.67 & 1.82 and ±0.08, ±0.10, & ±0.08 respectively. The obtained 'F' ratio of 27.92 for post-test scores was greater than the table value of 3.22 for df 2 and 42 required for significance at 0.05 level of confidence on Reaction ability.

The adjusted post-test means on Reaction ability of experimental groups 'A' and 'B' and control group were 1.61, 1.66 and 1.82 respectively. The obtained 'F' ratio of 47.32 for adjusted post-test mean was greater than the table value of 3.23 for df 2 and 41 required for significance at 0.05 level of confidence on Reaction ability.

The results of the study indicated that there was a significant difference between the adjusted post-test means of Continuous Training with mental training, Continuous Training without mental training and Control group on Reaction ability.

Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test was used to found out the paired mean difference and it was presented in table-II.

TABLE - II
SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON REACTION ABILITY

Continuous Training with Mental Training Group (Group-I) Expt. Group 'A'	Continuous Training without Mental Training (Group-II) Expt. Group 'B'	Control Group (Group- III)	Mean Difference	Confident Interval Value
1.61	1.66	---	0.05	0.06
1.61	---	1.82	0.21*	
---	1.66	1.82	0.16*	

*Significant at 0.05 level of confidence.

The above table shows that the mean difference values of experimental groups 'A' and Control group and experimental groups 'B' and Control group were 0.21 and 0.16 respectively, which were greater than the confidence interval value of 0.06 on Reaction ability at 0.05 level of confidence. The results of the study showed that there was a significant difference between experimental groups 'A' and Control group and experimental groups 'B' and Control group.

The mean difference values of experimental groups 'A' and experimental groups 'B' was 0.05, which was lesser than the confidence interval value of 0.06, so it showed insignificant differences.

The above data also reveals that Continuous Training with mental training group had better Reaction ability.

The pre, post and adjusted mean values of Continuous Training with mental training, Continuous Training without mental training and Control group on Reaction ability were graphically represented in the Figure -I.

CONCLUSIONS

From the analysis of the data, the following conclusions were drawn.

1. There was a significant difference among Continuous training with Mental Training, Continuous training without Mental Training and control groups on Reaction ability among Inter Collegiate women athletes.
2. Significant improvements noticed on selected Reaction ability due to Continuous training with Mental Training, Continuous training without Mental Training.
3. Among the experimental groups, Continuous training with Mental Training group significantly improved the Reaction ability Performance than that of Continuous training without Mental Training.

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