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INFLUENCE OF CORE STABILITY EXERCISE ON CORE STRENGTH FLEXIBILITY AND CORE STRENGTH ENDURANCE AMONG CRICKET MEN

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ABSTRACT

The purpose of the study was to find out the Influence of core stability exercise on core strength, flexibility and core strength endurance among Cricket men. To achieve this purpose of the study twenty four men players were selected from the Government College, Rajahmundry, AndhraPradesh, India were selected and their age ranged from 18 to 24 years. for this study. The age of the subject was ranged from 18 to 24 years. The selected subjects were assigned at random into two group of 12 subjects each (N=12) group1 underwent core stability exercise training for six weak and three days per week. Group2 acted as control group. However, control group was not exposed to any specific training but they participated in the regular schedule. The present study was undertaken primarily to assess the core stability exercise on core strength, flexibility and core strength endurance among adolescence men. The collected data from all the two groups were statistically analysis. To find out the significant improvement between the pre and post test means dependent t test was used as statistical techniques. To find out significant adjusted post test difference among the group. Analysis of covariance (ANCOVA) was used. As the two groups were involved, whenever the f-ratio was found to be significant. In all cases the criterion for statistical significance was at 0.05level was fixed. . The experimental group namely core stability training group have achieved significant improvement on core strength, flexibility and core strength endurance when compared to control group. Significant differences were found between core stability training and control group towards improving the selected variables such as core strength, flexibility and core strength endurance.

1. INTRODUCTION

Physical fitness implies the ability to function at once best level of efficiency in all his daily living. Physical fitness is an instrument for social goods is the capacity to successfully respond physically, mentally and emotionally to the forces of life without undue debilitations physical fitness in one of the facts of persons all round harmonious development. Physical fitness the cultural phenomonious of great complexity and magnitude is a historically pre conditioned level of health and copprehensive development of a person's physical activity, corresponding to the requirement of labour activity. Normal functioning of body's vital system and congevity, physical fitness adds grace to young. The place of physical fitness in any society reflects something of that societys characteristic. **(John R. Tunis,1958)**

Sports requiring high level of physical fitness. It is one of those rare games, which demands not only speed but also agility, strength, power and endurance. Exercise is physical activity perform repetitively to develop or maintain fitness; fitness is the capacity to perform physical activity. Regular exercise is one of the best things that a person's can do to help prevent illness and preserve health. Exercise comes in many forms and can vary in intensity. With so many ways to exercise, almost everyone can participate in some way **(Babu Prasad,2008)**

2. PURPOSE OF THE STUDY

The purpose of the study was to find out the Influence of core stability exercise on core strength, flexibility and core strength endurance among Cricket men

3. METHODOLOGY

To achieve this purpose of the study twenty four men cricket players were selected from the Government College, Rajahmundry, AndhraPradesh, India for this study. The age of the subject was ranged from 18 to 24 years. The selected subjects were assigned at random into two group of 12 subjects each (N=12) group1 underwent medicine ball training for six weak and three days per week. Group2 acted as control group. However, control group was not exposed to any specific training but they participated in the regular schedule. Core strength flexibility and core strength endurance play an important role in almost all games and sports. Hence core strength flexibility and core strength endurance were selected as dependent variables for this study.

4. ANALYSIS OF DADA

The collected data from all the two groups were statistically analysis. To find out the significant improvement between the pre and post test means dependent t test was used as statistical techniques. To find out significant adjusted post test difference among the group. Analysis of covariance (ANCOVA) was used. As the two groups were involved, whenever the f-ratio was found to be significant. In all cases the criterion for statistical significance was at 0.05level was fixed.

Table-1

THE SUMMARY OF MEAN AND DEPENDENT "T" TEST FOR THE PRE AND POST TEST ON CORE STRENGTH OF CORE STABILITY TRAINING AND CONTROL GROUPS

Mean and Test	Core stability training group	Control group
Pre test Mean	1.84	1.73
Post Test Mean	2.11	1.86
t-Test	4.77	1.67

***significant at 0.05 level of confidence.(Core strength in counting number)**
(The table value for 0.05 level significant with df 11 is 2.201)

The table 1 shows that the pre test means values of core strength flexibility and core strength endurance and control groups are 1.84 and 1.73 respectively and the post test means are 2.11 and 1.86 respectively. The obtained t ratio values between the pre and post test means of core strength flexibility and core strength endurance control groups are 4.77 and 1.67 respectively. The table value required for significant difference with df 11 at .05 level is 2.201. Since the obtained t ratio value experimental group are greater than the table value, it is understood that core stability training programmes had significantly improved the performance of core strength and the control group has not improved as the obtained t value less than the table value, because they were not subjected to any specific training.

Table 2

ANALYSIS OF COVARIANCE ON CORE STRENGTH OF CORE STABILITY TRAINING AND CONTROL GROUP

Adjusted post test Means		Source of varience	Sum of squares	Df	Mean squares	F ratio
Core stability training group	Control group					
2.08	1.89	Between	0.22	1	0.22	6.13
		Within	0.74	21	0.04	

***significant at 0.05 level of confidence. (The table value required for significant for .05 level with df 1 and 21 is 4.32)**

Table 2 shows that the adjusted post test means of Core stability and control groups are 2.08 and 1.89 respectively. The obtained F ratio value is 6.31* which is higher than the table value 4.32 with df 1 and 21 required for significance at .05 level. Since the value of F-Ratio is higher than the table value it indicates that there is significant difference exists between. The adjusted post test means of swiss ball and control groups.

Table-3

THE SUMMARY OF MEAN AND DEPENDENT "T" TEST FOR THE PRE AND POST TEST ON FLEXIBILITY OF CORE STABILITY TRAINING AND CONTROL GROUPS

Mean and Test	Core stability training group	Control group
Pre test Mean	18.25	17
Post Test Mean	18.92	18.17

t-Test	10.38	3.55

***significant at 0.05 level of confidence.(Core stability in scores)**
(The table value for 0.05 level significant with df 11 is 2.201)

The table 3 shows that the pre test means values of Core stability training and control groups are 18.25 and 17 respectively and the post test means are 18.92 and 18.17 respectively. The obtained t ratio values between the pre and post test means of Core stability training and control groups are 10.38 and 3.55 respectively. The table value required for significant difference with df 11 at .05 level is 2.201. Since the obtained t ratio value experimental group are greater than the table value, it is understood that Core stability training programmes had significantly improved the performance of flexibility and the control group has not improved as the obtained t value less than the table value, because they were not subjected to any specific training.

TABLE-4

ANALYSIS OF COVARIANCE ON CORE STABILITY OF ON FLEXIBILITY OF CORE STABILITY TRAINING AND CONTROL GROUP

Adjusted post test Means		Source of varience	Sum of squares	Df	Mean squares	F ratio
Core stability training group	Control group					
18.72	18.37	Between	0.69	1	0.69	3.01*
		Within	4.8	21	0.23	

***significant at 0.05 level of confidence. (The table value required for significant for .05 levels with df 1 and 21 is 4.32)**

Table 4 shows that the adjusted post test means of Core stability and control groups are 18.72 and 18.37 respectively. The obtained F ratio value is 3.01* which is higher than the table value 4.32 with df 1 and 21 required for significance at .05 level. Since the value of F- ratio is higher than the table value it indicates that there is significant difference exists between. The adjusted post test means of Core stability and control groups.

Table-5

THE SUMMARY OF MEAN AND DEPENDENT "T" TEST FOR THE PRE AND POST TEST ON CORE STRENGTH OF MEDICINEBALL TRAINING AND CONTROLE GROUPS

Mean and Test	Core stability training group	Control group
Pre test Mean	47.75	43.42
Post Test Mean	51.25	51.75
t-Test	3.63	23.45

***significant at 0.05 level of confidence.(Core strength endurance in counting numbers)**
(The table value for 0.05 level significant with df 11 is 2.201)

The table 4 shows that the pre test means values of Core stability and control groups are 47.75 and 43.42 respectively and the post test means are 51.25 and 51.75 respectively. The obtained t ratio values between the pre and post test means of Core stability training and control groups are 3.63 and 23.45 respectively. The table value required for significant difference with df 11 at .05 level is 2.201. Since the obtained t ratio value experimental group are greater than the table value, it is understood that Core stability training programmes had significantly improved the performance of core strength endurance and the control group has not improved as the obtained t value less than the table value, because they were not subjected to any specific training.

TABLE-6

ANALYSIS OF COVARIANCE ON CORE STRENGTH ENDURANCE OF CORE STABILITY TRAINING AND CONTROL GROUP

Adjusted post test Means		Source of varience	Sum of squares	Df	Mean squares	F ratio
Core stability training group	Control group					
53.48	48.69	Between	107.69	1	107.69	10.07*
		Within	224.55	21	10.69	

***significant at 0.05 level of confidence. (The table value required for significant for .05 levels with df 1 and 21 is 4.32)**

Table 6 shows that the adjusted post test means of Core stability and control groups are 53.48 and 48.69 respectively. The obtained F ratio value is 10.07* which is higher than the table value 4.32 with df 1 and 21 required for significance at .05 level. Since the value of F- ratio is higher than the table value it indicates that there is significant difference exists between. The adjusted post test means of Core stability and control groups.

5. DISCUSSION ON FINDINGS

The result of the study indicates that, the experimental group namely Core stability training group had achieved significant improvement on core strength, flexibility and core strength endurance when compared on control group.

The result shows that the significant improvement on Core stability training group because they underwent 6 week schedule Core stability training programme but there is no training to control group so there no improvement on core strength, flexibility and core strength endurance for control group.

Significant differences were found between Core stability training and control group towards the selected variables such as core strength, flexibility and core strength endurance.

Marshall & Murphy (2006) investigated the effect of medicine ball training on muscle activity using surface electromyography of upper body and abdominal muscle. It was concluded that, increased deltoid muscle activity supports previous findings foe increased activity when greater instability is introduced to the bench press movement. Abdominal muscle activity increase was not hypothesised, but this finding provides scientific evidence for anecdotal reasoning behind medicine ball used as potential core stability training device.

Bliss & Teeple (2005) determined the core strengthening and stability exercise have become key components of training programmes for athletes of all level. It was concluded that, stability initially requires maintenance of a neutral spine must progress beyond the neutral zone in controlled manner.

6. CONCLUSION

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

1. The experimental group namely core stability training have achieved significant improvement on core strength, flexibility and core strength endurance when compared to control group.
2. Significant differences were found between core stability training and control group towards improving the selected variables such as core strength, flexibility and core strength endurance.

CONFLICT OF INTERESTS

None.

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