EFFECT OF SPECIFIC EXERCISE TRAINING REGIME ON BALANCE ABILITY OF TRIPURA CRICKETERS.

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ABSTRACT

The main objective of the study was to identify the effectiveness of 12 weeks specific exercise training regime on balance ability (balance – lengthwise & crosswise) among selected Tripura cricketers. Pre test – post test randomized group design were undertaken for the present study which consist of an experimental group and control group. Equal number of subjects (n= 30) were assigned randomly to both the groups. The experimental group was exposed to 12 weeks specific exercise training regime whereas, no treatment was given to control group. For the purpose of the present research work a total of 60 Cricketers were randomly selected for the present research work. The age of the subjects were ranging from 19 years to 31 years. The average age was being 25 years. Balance ability was selected as a dependent variable and 12 weeks specific exercise training regime was considered as an independent variable. The data was analyzed by applying analysis of one tailed t- ratio was used to draw appropriate conclusions and to find out the effect of 12 weeks of specific exercise training regime on balance ability among selected Tripura cricketers. The significance level was set at 0.05. The results indicated that there was significant difference found in experimental group – A selected Tripura state cricketers on balance – lengthwise & crosswise in comparison to control group. The findings of this study strongly showed that 12 weeks specific exercise training regime was an effective training tool to improve cricketers’ balance ability.

Keywords: Specific, exercise, training, regime training, cricketers

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INTRODUCTION

Neuromuscular training programs that include balance training are often implemented for optimizing performance, preventing injury, or providing rehabilitation (Emery et al., 2005; Hewett et al., 2006; and McGuine et al., 2008, have shown the effectiveness of neuromuscular training programs that include balance training in reducing sport-related injury risk as well as in enhancing functional performance after sport injury (McKeon et al., 2008). Mostly, described balance and stabilization exercises, and other defined neuromuscular training as multi-intervention programs with a combination of balance, strength, plyometric, agility, and sport-specific exercises (Coughlan et al., 2007) and (Panics et al., 2008).

Thus, it is unclear whether a single intervention or the combination of various exercises is primarily responsible for the training effects. Because most investigators studied balance training, it is very likely that these exercises have a certain influence on neuromuscular control and functional performance. This view is supported by research proving that poor balance is a predictor of increased lower extremity injury risk in athletes. Any form of balance training assists in increase in proprioception, kinaesthetic awareness, and muscular strength.

Ultimately, an exercise training program should mirror the movement patterns of the cricket sport as closely as is feasible. While early stages of the program may focus on developing a general strength base, as the competitive season approaches, specific exercises regime should become more specifically tailored to the sport. However, the main purpose of this study was to determine the effectiveness of 12 weeks specific exercise training on Tripura Cricketers’ balance abilities.

METHODOLOGY

Selection of Subject

For the purpose of the present research work a total of 60 Cricketers were randomly selected. These subjects had represented Tripura Cricket Association (Affiliation to BCCI) in several national tournaments. The age of the subjects were ranging from 19 years to 31 years. The average age was being 25 years.

Selection of Variables

Balance – lengthwise & crosswise were selected as a dependent variable and 12 weeks specific exercise training regime was considered as an independent variable. A balance was measured in seconds rounded off 0.01 second by using electronic digital stop watch (Casio 100-lap).

Instrumentation

To test balance abilities brass stick test – crosswise& lengthwise were respectively administrated. Specific conditioning training was administered six times a week on experimental group – A at M.B.B. Stadium in Agartala for a period of 12 weeks (84 days) while the control group – B underwent general training and regular cricketing practice. Before the administration of specific exercise training regime, brass stick test – crosswise & lengthwise for balance were respectively administrated at same venue on both the groups namely experimental group – A and control group – B respectively to collect pre test data. After the completion of specific exercise training regime again the same balance ability tests
were conducted to collect the post training data. One tailed t-ratio was computed to analyze the data and the significance level was set at 0.05.

**Research Design**

For the present study pre test – post test randomized group design which consisted of experimental group (n = 30) and control group (n = 30). Equal numbers of subjects were assigned randomly to both the groups. One group served as experimental group – A on which treatment was administered. The other group served as the control group – B.

**RESULTS**

The findings of the study are given below:

**TABLE 1**

<table>
<thead>
<tr>
<th>Balance Ability</th>
<th>df</th>
<th>Pre-test Mean</th>
<th>Post-test Mean</th>
<th>DM</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance (Crosswise brass stick balance test)</td>
<td>Control</td>
<td>29</td>
<td>129.76</td>
<td>129.74</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>29</td>
<td>134.08</td>
<td>137.53</td>
<td>3.44</td>
</tr>
<tr>
<td>Balance (Lengthwise brass stick balance test)</td>
<td>Control</td>
<td>29</td>
<td>118.08</td>
<td>118.28</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>29</td>
<td>125.49</td>
<td>129.21</td>
<td>3.72</td>
</tr>
</tbody>
</table>

Significant at .05 level.

‘t’ 0 .05 (29) =1.70

The result shown in table no. 1.0 indicated that the analysis of one tailed ‘t’ ratio of specific exercise training regime on balance ability (crosswise brass stick balance test and lengthwise brass stick balance test) of control group differs insignificantly, as obtained ‘t’ value of 0.11 and 0.96 wererrespectively lower than the tabulated value of 1.70 at 0.05 level.

The graphical representations of pre and post test means of control group for balance brass stick balance test are presented in figure 1.0 and 1.1. Further, the analysis of one tailed ‘t’ ratio of specific exercise training regime on balance (crosswise brass stick balance test and lengthwise brass stick balance test) of experimental group differs significantly, as obtained ‘t’ value of 9.24 and 10.28 were greater than the tabulated value of 1.70 at 0.05 level. The graphical representations of pre and post test means of experimental group for balance ability (crosswise brass stick balance test) are presented in figure 1.0 and 1.1.
DISCUSSION

The present research study findings were indicated that selected balance – lengthwise & crosswise in experimental group - A Tripura cricketers had improved significantly by 12 weeks specific exercise training regime in contrast to control group – B. This significant difference was due to the fact that cricketers belonging to the experimental group were regularly in practice (six days a week) as per the designed specific programme and under the constant supervision of the researchers and support staff. In addition, they had access to modern infrastructure i.e., indoor stadium, ultra – modern fitness facilities than their counterparts belonging different districts of the state. However, demands of Tripura state cricketers are immense to perform. Thus, they were understood the importance of specific exercise training regime programme and also knew that the modern cricket is a game of power, speed and static and dynamic balance required to excel and dominate in this arena could be the fact the experimental group were taken the researcher’s prescribed 12 weeks specific exercise training regime very seriously in which they were involved in to practicing sports specific zig-zag run drills with detailed distance and time, hexagon and ladder drills, upper and lower body plyometric exercises, core and stabilization training for improvement of balance ability. The results of the present study were supported by the findings of Lephart et.al.(2007) who determined the effects of an 8-week golf-specific exercise program on physical characteristics, swing mechanics, and golf performance and the results reported that a golf-specific exercise program improves physical characteristics and balance in golfers. However, Sarahet. al., (2006) were examined the effectiveness of ballates training (strengthening of the central core musculature by the inception of balance techniques) compared to more traditional exercise programs, such as step aerobics and walking, on balance in women aged 50-75 years and the results of the study was indicated that all the training programs were improved dynamic balance; however, step aerobics and walking programs resulted in be better improvements in postural stability or static balance.

CONCLUSION

The results indicated that there was a significant improvement had exhibited by experimental group cricketers on balance ability after exposed to 12 weeks specific exercise training regime in comparison to control group subjects. Hence, it is concluded that specific exercise training regime programme was an effective training tool to improve a cricketers’ balance ability.

REFERENCES


