EFFECT OF PLYOMETRIC TRAINING ON HEALTH RELATED PHYSICAL FITNESS AMONG COLLEGE MALE STUDENTS

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Abstract

Aim: To study about the health related physical among college male students.

Background: We examine the college male student’s physical fitness

Objectives: Total of 30 college male students from South-Chennai, TamilNadu, India at the age range between 18 to 25 have participating in this study. That is made to examine the effect of plyometric training on health related physical fitness among college male students.

Methods: The subjects were separated into two equal groups of 15 each. Experimental group-A plyometric training and group-B was control group was not treated. Various plyometric exercises will be given for group –I for twelve weeks.

Results: The data retrieval process is done by muscular strength with push-ups test and leg explosive power with standing broad jump analysis at pre-test and post-test. Collected data’s will be analysed by ANOVA. The level of confidence 0.05 was fixed.

Conclusion: The result of the research shows plyometric training gave positive performance on muscular strength and leg explosive power when compare to control group

Keywords: Plyometric Training, Physical Variables, College Male Students, Anova

INTRODUCTION

Modern games researchers and instructors are keen on human execution in an assortment of sports and games. Great preparing project ought to be organized changed to stay away from immersion, hesitate and anxiety mentally. The technique for training is the way taken practically speaking which is utilized to work on the nature of competitor in working on the esteem of the competitor.

Trainings are of extreme focus, explosive muscular solid constrictions consolidating strength and speed for acquisitions of advantages in power. Plyometric preparing program normally incorporates sport-explicit activities including practices for shoulder and muscles of arms and has generally been utilized for running, hopping, and sports with quick shifts in direction. Plyometric preparing has expanded in fame demonstrated important for application to a scope of sports as a successful tool in expanding lower body power. Plyometric are
preparing methods utilized by competitors in a wide range of sports to build strength and hazardousness. It comprises of a quick extending of a muscle promptly followed by a concentric or shortening activity of a similar muscle and connective tissue.

Plyometric preparing like bouncing, jumping and jumping practices that utilization the stretch shortening pattern of the muscle unit have reliably been displayed to work on the creation of muscle power and power. Power advancement and high power yield just as the capacity to effectively use the stretch shortening cycle in ballistic developments. Hazardous high speed preparing has exhibited more prominent upgrades in pace of power improvement and touchy activities in maximal strength. Plyometric activities should be possible with or without outer burden and the two modalities have been increment power hopping tallness and run execution.

**Methodology**

The review was discovered the effect of plyometric training on health related physical fitness among college male students. To accomplish the reason for concentrate on 30 male undergrads from south-Chennai region, Chennai locale, TamilNadu, India at the age were run ought to be 18 to 25 years. Subjects were screen to reject both those are with any neurotic condition and the people who had gotten pharmacological treatment in the three months earlier of this review. They were doled out into two equivalent gathering's specifically trial bunch – An as Plyometric preparing gathering and control bunch each gatherings are partitioned into 15 subjects for this examination. Exploratory gathering -A plyometric preparing convention of 45 minutes preparing for 3 substitute days of a week and for quite some time. The information data were gathered on muscular strength and leg explosive power.

**Training protocol**

The plyometric treatment are furnished in the first part of the day time with legitimate warming up and cooling off practices the physical instructor lead all the instructional meetings and in this manner kept up with the homogeneity. The plyometric training exercises High Knees, Box Jump, Rope jump, Jump Jacks, Split Jumps, kettlebell lunges, jumping squad, Mountain Climber and Moving Push-Up. The test was measured as muscular strength with push-ups and leg explosive power measured by standing broad jump test.

**Statistical Analysis**

[www.turkjphysiotherrehabil.org](http://www.turkjphysiotherrehabil.org)
The data were collected from experimental and control group on muscular strength and cardio-respiratory endurance. Data are presented as group mean values. The data were analysed by Analysis of variance (ANOVA). All analyses were executed IBM-SPSS 23.0 software was used the confidence level maintained at 0.05.

### Anova of physical variables on plyometric training among College male students

<table>
<thead>
<tr>
<th>Muscle Strength Tests</th>
<th>Plyometric Training</th>
<th>Control Group</th>
<th>Sum of Square</th>
<th>Df</th>
<th>Mean Square</th>
<th>F- Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>27</td>
<td>26</td>
<td>2.59</td>
<td>1</td>
<td>2.59</td>
<td>0.77</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>93.35</td>
<td>28</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>Post test</td>
<td>29</td>
<td>26</td>
<td>44.68</td>
<td>1</td>
<td>44.68</td>
<td>12.55*</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>99.94</td>
<td>28</td>
<td>3.56</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Leg Explosive power Tests</th>
<th>Plyometric Training</th>
<th>Control Group</th>
<th>Sum of Square</th>
<th>Df</th>
<th>Mean Square</th>
<th>F- Ratio</th>
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</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>1.56</td>
<td>1.54</td>
<td>0.008</td>
<td>1</td>
<td>0.008</td>
<td>2.01</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>0.138</td>
<td>28</td>
<td>0.004</td>
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<tr>
<td>Post test</td>
<td>1.62</td>
<td>1.55</td>
<td>0.158</td>
<td>28</td>
<td>0.005</td>
<td>8.04*</td>
</tr>
</tbody>
</table>

*Significant 0.05 table f=3.32, df(1.28)

The worth of muscular strength pre-test for PT and CG F proportion esteem 0.77 was viewed as lower than the essential worth 3.32 was altogether lesser than the table worth 3.32 df 1 and 28 importance at the df-0.05. The acquired muscular strength post-test for PT and CG F ratio esteem 12.55* was viewed as higher than the essential worth 3.32 was fundamentally more noteworthy than the table value 3.32 df 1 and 28 importance at the LOC-0.05.

The worth of leg explosive power pre-test for PT and CG F-2.01 was viewed as lower than the essential 3.32 was altogether lesser than the TV 3.32 df 1 and 28 importance at the LOC-0.05. The got leg explosive power post-test for PT and control bunch F proportion esteem 8.04* was viewed as more prominent than the imperative worth 3.32 was fundamentally more noteworthy than the table worth 3.32 df 1 and 28 importance at the LOC-0.05.

### Conclusion

In light of the after effect of study the end was drawn. The consequence of the review uncovers that there was huge improvement in the trial bunches on contrast with control bunch after the fruition effect of plyometric training on health related physical fitness among college male students. The plyometric preparing showed better execution on muscular strength and leg...
explosive power than the control group. Plyometric preparing gathering will help the college male students to further develop her wellness level in an incredible way.

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P.Arul Jothi conceptualized and gathered the info with relevancy this work. Dr.C.Suresh and P.Arul Jothi analysed these knowledge and necessary inputs got towards the planning of the manuscript. All authors mentioned the methodology and results and contributed to the ultimate manuscript.

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