Impact of yogic practices and circuit training on power production and health care

Vishal Kumar

Abstract
The main purpose of this current study was to find out the Impact of Yogic Practices and Circuit Training on Power Production and Health Care. The study was conducted on thirty men college students from various colleges in Chandigarh. They were randomly chosen as subjects. They were randomly assigned equally into three groups, Group-I underwent Circuit Training Group (n = 10), Group II underwent Yogic Practices Group (n=10) and Group-III acted as control Group (n=10). Among the power parameters leg explosive strength was selected as creation variables. Leg Explosive power was measure through sergeant board. The data was collected from the Experimental and Control Groups were statically examined with Analysis of covariance (ANCOVA). Leg Explosive power showed significant difference among the groups.

Keywords: Circuit training, Yogic practices and Leg Explosive power.

1. Introduction
Circuit training is a fast-paced class in which you do one exercise for 30 seconds to 5 minutes and then move on to another exercise. It’s like a game of musical chairs: Everyone begins at a station (that is, a place where an exercise is done), and when the instructor yells “Time!” everyone moves to the next free station. Some classes alternate an aerobic activity (like stepping or stationary cycling) with a muscle-strengthening activity (like using weight machines). Others focus exclusively on muscle toning or aerobic exercise.

Consider the following if you are interested in taking a circuit training class:

- **Circuit training does for you:** Increases your strength and aerobic fitness and burns lots of calories. However, you don’t get the same level of conditioning as you would from doing your aerobics and strength training separately. If you take circuit classes, aim to get in an additional 20 minutes of straight aerobic exercise at least three days a week.

- **The exhaustion factor:** Moderate. Circuit training tends to be intense, but it’s completely adaptable to the individual. Beginners use less weight and perform simpler moves than more-experienced exercisers, but everyone gets a good workout.

- **The coordination factor:** Low. Nothing to worry about.

- **Who digs circuit training:** Anyone looking for a good sweat to shake out of a training plateau. Circuit classes also are popular among busy people who want to combine a strength and aerobic routine in one workout. Anyone who wants a really fun and fast-paced workout will like circuit classes.

- **Signs of a sharp instructor:** Good instructors are aware of each class member’s level and modify the moves accordingly. Even though you’re moving quickly from station to station, the instructor still needs to focus on proper technique. Look for no more than a one-minute rest between stations. Expect a heart-rate check 12 to 20 minutes into the main workout.

- **Tips for first-timers:** Pay attention to how you feel. Many people are surprised by how challenging circuit work can be.

Our physical body is meant to move and exercise. If our lifestyle does not provide natural motion of muscles and joints, then disease and great discomfort will ensue with time. Proper exercise should be pleasant to the practitioner while beneficial to the body, mind and spiritual life.
There are numerous modern physical culture systems designed to develop the muscles through mechanical movements and exercises. As Yoga regards the body as a vehicle for the soul on its journey towards perfection, Yogic physical exercises are designed to develop not only the body. They also broaden the mental faculties and the spiritual capacities.

The Yogic physical exercises are called Asanas, a term which means steady pose. This is because the Yoga Asana (or posture) is meant to be held for some time. However this is quite an advanced practice. Initially, our concern is simply to increase body flexibility.

The body is as young as it is flexible. Yoga exercises focus on the health of the spine, its strength and flexibility. The spinal column houses the all-important nervous system, the telegraphic system of the body. By maintaining the spine's flexibility and strength through exercise, circulation is increased and the nerves are ensured their supply of nutrients and oxygen.

The Asanas also affect the internal organs and the endocrine system (glands and hormones). You likely already know about the benefits of bodyweight exercises. No-equipment-needed workouts can build muscle, burn fat, and improve athletic performance, speed, and power. Add a jumping element—making the moves plyometric—and you quickly elevate your routine to a whole new level.

Before starting, keep in mind that plyometric training is not intended for workout newcomers or those recovering from injuries. The moves should focus on good form and all-out effort. That's why it's best to do these at the start of a workout before muscles fatigue and performance slows.

If you're new to plyo, focus on three to four moves at the start of your workout (after a warm up); two to three sets; three to five reps per set. Perform the moves two to four times per week, with 48 to 72 hours rest between sessions. Even if you can't squeeze that in, you may still reap some benefits: One study found that moderate plyo training just twice per week was effective in producing power and strength gains. And there's another bonus: You don't need any equipment for this.

2. Methodology

The study was conducted on thirty men college students from various colleges in Chandigarh. They were randomly chosen as subjects. They were randomly assigned equally into three groups, Group I underwent Circuit Training Group (n = 10), Group II underwent Yogic Practices Group (n=10) and Group-III acted as control Group (n=10). Among the power parameters leg explosive strength was selected as creation variables. Leg Explosive power was measure through sergeant board. The data was collected from the Experimental and Control Groups were statically examined with Analysis of covariance (ANCOVA).

3. Result and Discussion

The data collected from the Experimental group and Control group prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at .05 level of confidence to test the 'F' ratio obtained by analysis of covariance.

Table 1: Analysis of Mean and Dependent ‘t’ test for the Pre and Post Tests on Leg Explosive Power of Experimental Groups and Control Group

<table>
<thead>
<tr>
<th>Test</th>
<th>Circuit Training Group</th>
<th>Yogic Training Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test Mean</td>
<td>43.24</td>
<td>43.78</td>
<td>45.87</td>
</tr>
<tr>
<td>Post Test Mean</td>
<td>52.95</td>
<td>49.82</td>
<td>47.38</td>
</tr>
</tbody>
</table>

From Table-1 shows the pre test means of Circuit Training Group, yogic Practices Group and Control Group, were, 43.24, 43.78 and 45.87 and post test means of Circuit Training Group, yogic Practices Group and Control Group, were, 52.95, 49.82 and 47.38 respectively.

The Analysis of covariance (ANCOVA) on Explosive Power of Circuit Training Group, Yogic Practices Group and Control Group have been analyzed and presented in Table -2.

Table 2: Analysis of Covariance on Explosive Power Circuit Training Group, Yogic Practice Group and Control Group

<table>
<thead>
<tr>
<th>Adjusted Post-test Means</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F' Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit Training Group</td>
<td>Between</td>
<td>185.69</td>
<td>2</td>
<td>93.74</td>
<td>64.69</td>
</tr>
<tr>
<td>Yogic Practices Group</td>
<td>With In</td>
<td>82.89</td>
<td>26</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Significant at .05 level of confidence

(Explosive Power Scores in Centimeters)

(The table value required for Significance at .05 level with df 2 and 26 is 3.16)

Table 2 shows that the adjusted post test mean value of Explosive Power for Circuit Training Group, yogic Practices Group and Control Group are 52.78, 49.57 and 47.21 respectively. The obtained 'F' ratio of 64.69 for adjusted post test mean is more than the table value of 3.16 for df 2 and 56 required for significant at .05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of Circuit Training Group, yogic Practices Group and Control Group on the development of Explosive Power.

To determine which of the paired means had a significant difference, the Scheffe's test was applied as Post hoc test and the results are presented in Table 3.

Table 3: The Scheffe’s Test for the Differences between the Adjusted Post Test Paired Means on Explosive Power

<table>
<thead>
<tr>
<th>Adjusted Post-test means</th>
<th>Mean Difference</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit Training Group</td>
<td>3.21</td>
<td>0.97</td>
</tr>
<tr>
<td>Yogic Practices Group</td>
<td>5.57</td>
<td>0.97</td>
</tr>
<tr>
<td>Control Group</td>
<td>2.36</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Significant at .05 level of confidence
Table 3 shows that the adjusted post test mean difference on Circuit Training Group and yogic practices group, Circuit Training Group and Control Group, yogic practices group and control groups are 3.21, 5.57 and 2.36 respectively. The values are greater than the confidence interval value 0.97, which shows significant differences at .05 level of confidence. It may be concluded from the results of the study that there is a significant difference in Explosive power between the adjusted post test means of Circuit Training Group and yogic practices group, Circuit Training Group and Control Group, yogic practices group and control groups. However, the improvements of Explosive Power were significantly higher for yogic practices Group than Circuit Training Group when compare to the Control Group.

4. Conclusion

- The results of the study showed that there is a significant difference among the groups.
- It may be concluded that Yogic practices Group is better than Circuit Training Group and Control Group in improving Explosive power.

5. References

5. http://www.dummies.com/how-to/content/what-is-circuit-training.html