



Analysis of State Anxiety among Men Badminton Players

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Abstract

The purpose of the present study was to analyze the training impacts of Plyometrics and Suryanamaskar combined with yogic practices on state anxiety among men badminton players. To achieve the purpose of this study 60 college level men badminton players from Anjalai Ammal Mahalingam college of Engineering, Thanjavur, Tamilnadu State, India were randomly selected as subjects. Their age ranged between 17 and 21 years. The selected subjects were randomly divided into 3 equal groups namely, Plyometrics training group (Group-I), Suryanamaskar combined with Yogic training group (Group-II), and Control group (Group-III). The psychological variable namely state anxiety was chosen as variable for this study. Group-I underwent the Plyometrics practice, subject in the Group-II underwent suryanamaskar combined with yogic practices group and subjects in the Group-III did not go through any specific training. During the training period, training was given for both experimental groups for twelve weeks, six days per week for forty five minutes each in the morning session and evening session under the supervision of the investigator. The psychological factor was assessed by standardized inventory developed namely state and trait anxiety inventory developed by Spielberger and his associate (1970). The data was collected before and after the experimental treatment of 12 weeks. From the result of the Scheffe's post – hoc test, it was clear that the mean state anxiety of the Suryanamaskar combined with yoga group (Group – II) proved a significant over the other two groups.

Keywords: Yoga, Suryanamaskar, Plyometrics, State Anxiety.

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Introduction

The participation in modern sports is influenced by various physical, Physiological, sociological and psychological factors. During training, besides good physique and physical fitness of the athlete, more emphasis is laid on the development of various types of motor skills involved in the game as well as on teaching the strategies, techniques and tactics of the game. The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, muscles and nerves no longer functions in harmony, rather they be in opposition to each other. Therefore yoga aims at bringing the different functions into perfect co-ordination, so that they work for the good of the whole body. Plyometrics is defined as exercise that enables a muscle to reach maximum strength in short time as possible. The speed-strength ability is known as power. For an exercise to be truly Plyometric, it must be a movement preceded by an eccentric contraction. This results not only stimulating the proprioceptors sensitive to rapid stretch, but also in loading the serial elastic components (the tendons and cross-bridges between

muscle fibers) with a tension force from which they can rebound. A reasonable amount of flexibility is important when beginning the Plyometric training programme.

Methodology

The purpose of the present study was to analyze the training impacts of Plyometrics and Suryanamaskar combined with yogic practices on state anxiety among men badminton players. To achieve the purpose of this study 60 college level men badminton players from Anjalai Ammal Mahalingam college of Engineering, Thanjavur, Tamilnadu State, India were randomly selected as subjects. Their age ranged between 17 and 21 years. The selected subjects were randomly divided into 3 equal groups namely, Plyometrics training group (Group-I), Suryanamaskar combined with Yogic training group (Group-II), and Control group (Group-III). The psychological variable namely state anxiety was chosen as variable for this study. Group-I underwent the Plyometrics practice, subject in the Group-II underwent suryanamaskar combined with yogic practices group and subjects in the Group-III did not go through any specific training. During the training period, training was given for both experimental groups for twelve weeks, six days per week for forty five minutes each in the morning session and evening session under the supervision of the investigator. The psychological factor was assessed by

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standardized inventory developed namely state and trait anxiety inventory developed by Spielberger and his associate (1970). The data was collected before and after the experimental treatment. Analysis of covariance (ANCOVA) was used to analyze the collected data. Scheffe's test was followed as a post hoc test to determine the level of significant difference between the paired means. All of the statistical analyses were computed at 0.05 level of significance.

Analysis and Findings

The data of state anxiety was assessed through Spielberger inventory before and after twelve weeks of training for the control group (Group-III) and the two experimental groups (Group-I and Group-II). The data were analyzed and the results are presented in Table-I and for comparison of pre and post test means, post-hoc test was used respectively.

Table I. Analysis of Co-variance of State Anxiety (in scores)

| Test | Group Means | | | Source of variance | SS | df | Mean Square | F-ratio |
|--------------------|-------------|-------|-------|--------------------|---------|----|-------------|---------|
| | Gr-III | Gr-II | Gr-I | | | | | |
| Pre test | 47.35 | 47.55 | 48.05 | B.G. | 5.200 | 2 | 2.60 | 0.07 |
| | | | | W.G. | 1892.45 | 57 | 33.20 | |
| Post test | 47.20 | 40.85 | 46.85 | B.G. | 509.63 | 2 | 254.81 | 8.11* |
| | | | | W.G. | 1790.30 | 57 | 31.40 | |
| Adjusted Post test | 47.20 | 40.85 | 46.85 | B.S. | 509.63 | 2 | 254.81 | 10.04* |
| | | | | W.S. | 1420.92 | 56 | 25.37 | |

*Significant at 0.05 level of confidence

From the above table, it was observed that the pre-test mean state anxiety levels of the three groups namely control group (Group-III), Suryanamaskar combined with yoga group (Group – II) and Plyometrics group (Group – I) did not differ significantly ($P > 0.05$). The post-test state anxiety levels of the three groups

differs significantly ($P < 0.05$). The adjusted post – test for mean state anxiety of the three groups, done by Analysis of co-variance (ANCOVA) showed that the mean state anxiety differed significantly among the three groups ($P < 0.05$).

Table II. Scheffe's post-hoc test of State Anxiety (in scores)

| Group | N | Subset for Alpha = 0.05 | |
|---------------------|----|-------------------------|--------------|
| | | 1 | 2 |
| Group- III | 20 | | 47.20 |
| Group- I | 20 | | 46.85 |
| Group- II | 20 | 40.85 | |
| Significance | | 1.00 | 0.976 |

Conclusion

The result of the Scheffe's post – hoc test proves that the mean state anxiety of the Suryanamaskar combined with yoga group (Group – II) was significantly lower than those of the other two groups (Group-I and Group-III) which reveals the fact that the above training has a better significance on state anxiety.

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