INFLUENCE OF TRADITIONAL BADAGA DANCE TRAINING ON PHYSICAL FITNESS PARAMETERS OF SCHOOL BOYS IN NILGIRIS

Dr. K. Murugavel1 and D. Nandagopal2
1Professor and Head, Department of Physical Education, Bharathiar University, Coimbatore, India.
2Ph.D, Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore, India.

ABSTRACT:
This study was designed to find out the influence of traditional badaga dance training on physical fitness parameters of school boys in Nilgiris. To achieve the purpose of the study 40 school boys were selected from katary village, The Nilgiris. The subjects was randomly assigned to two equal groups (n=20). Group- I underwent traditional badaga dance training (TBDT) and Group - II acted as control group (CG). The respective training was given to the experimental group for 5 days per week (Monday to Friday) for the period of eight weeks. The control group was not be given any sort of training except their routine work. The physical fitness parameter Agility was assessed by 4*10mts shuttle run test, Flexibility was assessed by sit and reach test and muscular strength endurance was assessed by modified sit-ups. The data collected from the subjects was statistically analyzed with ‘t’ ratio to find out significant improvement if any at 0.05 level of confidence. The result of agility, flexibility and muscular strength endurance improved significantly due to influence of traditional badaga dance training with the limitations of (diet, climate, life style ) status and previous training the result of the present study coincide findings of the investigation done by different experts in the field of sports sciences.

KEYWORDS: Traditional badaga dance training, Agility, Flexibility and Muscular Strength endurance.

INTRODUCTION:
The Nilgiri Hills, known colloquially as the Blue Mountains, rise majestically on the plains of South India, a picturesque mountain-range cloaked by a greenish-blue mist and blossoming purple flowers. The temperate climate and seasonal rainfall make it a key coffee- and tea-growing region. It is also a popular tourist destination with a rich cultural and natural history that appeals to many Indian and foreign travellers. The Nilgiri and its peoples have had a long history in anthropology and social science, well known as the home to over a dozen indigenous tribes. In the largely Western-generated literature, Toḍas have received the most attention as the focus of the majority of publications (Hockings, 2008). Whereas Badagas, the topic of my research, have received less interest despite being the numerically largest community. The history of Badagas has been separated from the history of other South Indians and Nilgiri peoples, although it is problematic.
to trace their past as no archeological or early records have been discovered. Previous studies rely on analyses of oral tradition, transmission of cultural material passed down verbally from generation to generation. A well-known Badaga folk belief is the notion of successive waves of migration in the sixteenth or seventeenth century which led to the founding of the Badaga community in the Nilgiri by migrants of Vokkaliga castes from the southern plains of the Mysore region; the migrants were granted permission to settle in the hills by a council of men from the Kotas, Kurumbas, and Todas, provided they paid an annual remuneration (Benbow, 1930; Emeneau, 1946; Francis, 1908; Grigg, 1880; Harkness, 1832; Hockings, 1980a, 1999; Nambiar and Bharathi, 1965; Rhiem, 1900; Sastri, 1892; Thurston and Rangachari, 1909). A Kota folk story also recounts a meeting of a council of the three resident tribes with the first refugees and their pleas for land upon arrival in the Nilgiri (Belli Gowder, 1923-1941; Emeneau, 1946; Hockings, 1980a; Shortt and Ochterlony, 1868). Badaga epic ballads, which last minutes to hours, retell stories of the origins and early settlement and of the Badaga community, and provides information about individuals, families, and important events such as names of ancestors thought to have founded specific villages. Several authors have published detailed analyses of these stories (Benbow, 1930; Francis, 1908; Thurston and Rangachari, 1909; Emeneau, 1946; Nambiar and Bharathi, 1965; Grigg, 1880; Hockings 1980a).

Badaga dance is an aerobic type of activity but it differs from aerobic dance, Zumba training. It plays a key role in all occasions, festivals and even during the death funeral of the Badaga community. It is a continuous process for alternate rotation in standing and forward bending positions. Whole of the our body movement takes place while performing badaga dance. Badagas the fun loving cluster do not hesitate to step out and dance whilst any celebration. From kids to old aged person may finds happiness in performing the traditional badaga dance. There are four types of badaga dances Mettatta, Bombaratta, Kholatta and Vindhamoratta.

When ever I get an opportunity to perform for a badaga song or beat, I rejoice it and I could sense the change in my body and mind. I feel fresh. My mood changes and I feel like fully recharged. This was the reason for my curiosity to scientifically analyse the effect of my own traditional heritage the baduga dance on the selected parameters of school going students of The Nilgiris district.

METHODOLOGY
Experimental Approach to the Problem
In order to address the hypothesis presented herein, we selected 40 school boys from katary village, The Nilgiris. The subjects were randomly assigned into two equal groups, namely, traditional baduga dance training group (n=20) and control group (n=20). The respective training was given to the experimental group the 5 days per week (Monday to Friday) for the training period of eight weeks. The control group was not given any sort of training except their routine.

DESIGN
The evaluated physical fitness parameters were Agility was assessed by 4*10mts shuttle run test flexibility was assessed by sit and reach test and the unit of measurement was in Cms, and muscular strength endurance was assessed by modified sit-ups and the unit of measurement in counts. The parameters were measured at baseline and after 8 weeks of traditional baduga dance training were examined.

Training programme
The training programme was lasted for 60 minutes for session in a day, 5 days in a week for a period of 8 weeks duration. These 60 minutes included warm up for 5 minutes, 50 minutes badaga dance and 5 minutes warm down. The equivalent in badaga dance is the length of the time each action in total 5 day per weeks (Monday to Friday).

The collected data on above said variables due to the influence of traditional badaga training was statistically analyzed with t’ test to find out the significant Improvement between pre and posttest. In all cases the criterion for statistical significance was set at 0.05 level of confidence. (P < 0.05).
Table I reveals that the computation of \( t \) ratio between mean of pre and post-test on agility flexibility & muscular strength endurance of school boys of experimental group. The mean values of pre and post-test of experimental group were 14.26, 13.89, seconds, 15.80,16.75 centimetres and 25.25,26.45, counts respectively. Since, the obtained \( t \) ratio 3.44*,4.25* and 4.06* was higher than the required table value 2.093, it was found to be statistically significant for the degree of freedom 1 and 19 at 0.05 level of confidence. The results clearly indicated that the physical fitness parameters of the experimental group improved due to the influence of traditional badaga dance training of school boys.

### TABLE-I

**COMPUTATION OF \( t \) RATIO BETWEEN PRE AND POST TEST MEANS OF AGILITY FLEXIBILITY AND MUSCULAR STRENGTH ENDURANCE OF EXPERIMENTAL GROUP**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean Difference</th>
<th>Standard error mean</th>
<th>( t )-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>Pre test</td>
<td>14.26</td>
<td>0.77</td>
<td>0.37</td>
<td>0.10</td>
<td>3.44*</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>13.89</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flexibility</td>
<td>Pre test</td>
<td>15.80</td>
<td>2.35</td>
<td>0.15</td>
<td>0.08</td>
<td>4.25*</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>16.75</td>
<td>2.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscular strength endurance</td>
<td>Pre test</td>
<td>25.25</td>
<td>1.06</td>
<td>1.20</td>
<td>0.29</td>
<td>4.06*</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>26.45</td>
<td>1.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level of confidence (2.093), 1 and 19

### TABLE-I

**COMPUTATION OF \( t \) RATIO BETWEEN PRE AND POST TEST MEANS OF AGILITY FLEXIBILITY AND MUSCULAR STRENGTH ENDURANCE OF CONTROL GROUP**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean Difference</th>
<th>Standard error mean</th>
<th>( t )-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>Pre test</td>
<td>14.36</td>
<td>0.74</td>
<td>0.15</td>
<td>0.08</td>
<td>1.83</td>
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<tr>
<td></td>
<td>Post test</td>
<td>14.51</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flexibility</td>
<td>Pre test</td>
<td>16.05</td>
<td>2.11</td>
<td>0.30</td>
<td>0.35</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>15.75</td>
<td>2.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscular strength endurance</td>
<td>Pre test</td>
<td>24.50</td>
<td>1.53</td>
<td>0.70</td>
<td>0.44</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>23.80</td>
<td>2.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level of confidence (2.093), 1 and 19
Table II reveals that the computation of 't' ratio between mean of pre and post test on agility, flexibility & muscular endurance of school boys of control group. The mean values of pre and post test of control group were 14.36, 14.51 seconds, 16.05, 15.75 centimetres and 24.50, 23.80, counts respectively. Since, the obtained 't' ratio 1.83, 0.84 and 1.56 was lesser than the required table value 2.093, it was found to be statistically insignificant for the degree of freedom 1 and 19 at 0.05 level of confidence.

The following bar diagram shows the mean values of pretest and posttest on agility, flexibility and muscular strength endurance of experimental group and control group.

**DISCUSSION AND FINDINGS**

The present study experimented the impact of 8 weeks of traditional badaga dance training significantly improved agility flexibility and muscular strength endurance among school boys in Nilgiris. It is a continuous process for alternate rotation in standing and forward bending positions. Whole of the body movement takes place while performing badaga dance. Hence the dance may improve our physical fitness level. The results of this study indicated that traditional badaga dance training is more efficient to bring out desirable changes over the school boys. The finding of the present study had similarity with the findings of the investigators referred in this study. Matheows et al (2013) indicated that there were significant improvement in cardiovascular endurance, muscular endurance, muscular strength and flexibility but in the case of body mass index and body weight there were reduction. Ayudthaya et al., (2015) Low impact aerobic dance and fitball training has the positive effect of slowing down bone resorption and is beneficial to healthy bones. They concurrently increase lower back flexibility. Reddy et al., (2013) investigated the effect of yogic aerobic exercises and combined yogic and aerobic practice on flexibility of high school boys and the study proved that flexibility was significantly increased in combined (yogic and aerobic) practice group when compared to other groups. Maniazhagu, et al (2011) investigated the effects of aerobic training and circuit training on muscular strength and muscular endurance and the study revealed that muscular strength and muscular endurance were significantly improved due to the influence of aerobic training and circuit training. Gulam Mohmad Dar (2017) concluded that the aerobic and pranayama exercise programs for school, college students can be best designed to delay the onset of fatigue and improve the mechanical efficiency of Lung and heart. Mukesh et al (2015) concluded that the six weeks aerobic training is
responsible for the improvement of selected physiological variables like Resting Heart Rate (RHR), Vital Capacity (VC). Murugavel et al (2014) the effect of the aerobic dance programme on resting heart rate was positive in the sense there was a decrease in the resting heart rate and increase in the breath holding time, cardio respiratory endurance and Vo2 max. The results of this research which studied the effects of aerobic dance on physiological variables indicate an identical change.

CONCLUSIONS
1. Based on the result of the study it was concluded that the 8 weeks of traditional badaga dance training have been significantly improved agility of school boys in Nilgiris District.
2. The 8 weeks Traditional badaga dance training have been significantly improved flexibility of school boys in Nilgiris District.
3. Muscular strength endurance of school boys were significantly improved due to the influence of 8 weeks of traditional badaga dance training.
4. From the findings it is postulated that traditional badaga dance training is suitable mode to bring out desirable changes over physical fitness parameters of school boys in the Nilgiris.

REFERENCE

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