Original Research Article

Static Balance and Flexibility of Teen Aged Yoga Students and Bharatnatyam Dancers: A Comparative Analysis

Pintu Sil
Assistant Professor
State Institute of Physical Education for Women, Hastings House, 20B Judges Court Road, Alipore, Kolkata, India.

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ABSTRACT

Objective: The purpose of the study was to compare the static balance and flexibility between teen aged yoga students and Bharatnatyam dancers.

Methodology: For these purpose a total of thirty five (N=35) teen aged female students were selected randomly from two different districts of West Bengal. Among them eighteen were the Yoga students (N=18) and seventeen were the Bharatnatyam dancers (N=17). The average age of the yoga students was 16.47 yrs and Bharatnatyam dancers were 15.59 yrs. Static balance and flexibility were considered as criterion measure for the present study. Stork stand test and modified sit and reach test were used to measure the parameters static balance and flexibility respectively. Mean and standard deviation were used as descriptive statistics and significance of difference between group means was analyzed by t-test. Only 0.05 level of significance was considered in this study.

Results: Result revealed that yoga students had higher level of static balance (Mn=20.46 Sec & SD=14.20) and flexibility (Mn=45.38 cm & SD=5.51) than the Bharatnatyam dancers (Mn=16.82 Sec & SD=10.33 and Mn=41.88 cm & SD=4.84 respectively) and difference between means for flexibility (t=2.05) was significant statistically (p<0.05) but mean difference for static balance between two groups (t=0.89) was not significant statistically (p>0.05).

Conclusion: From the findings it was concluded that teen aged girls who participated Yoga on regular basis had significant higher level of flexibility than the girls who participate Bharatnatyam dance occasionally.

Key words: Static balance, Flexibility, Bharatnatyam dancer, Yoga students, Teen aged girls.

INTRODUCTION

Yoga is a complete science of life that originated in India thousands of years ago. Yoga helps to develop the potential attributes to its fullness and to enable and equip man to enjoy peaceful and blissful life. [1] The great sage Patanjali systematically presented the science of yoga in the form ‘Sutras’ the aphorisms. Yogic practices promote inner health and harmony by providing proper exercise and rhythm to every part of the body. [2] They also enable us to have complete control per our bodily functions and mental activity, so that one can always maintain good health. Yoga-asana forms the best system of physical culture. Regular practice of asana tones up the nervous system, endocrine glands, blood circulation, digestion excretion and respiration.

Bharathanatyam is a form of indian classical dance that originated in the temples of Tamil Nadu. [3-7] Bharata Natyam is known for its grace, elegance, purity, tenderness, expression and sculpturesque poses. Lord Shiva in his Nataraja form is...
considered the God of this dance. Today, it is one of the most popular and widely performed dance styles and is practiced by male and female dancers all over the world, although it is more commonly danced by women.

There are three divisions in Bharathanatyam; Nirutham, Niruthiyam and Natyam. Nirutham is a pure dance without any emotions, expressions or sahityam. It involves Adavus (These are a combination of hand movement and feet movement as well as head movements and eye movements). Niruthiyam has sahityam (a sentence which means something). It has emotions, expressions and has a meaning shown by the hastas. Nirutham involves all four types of Abinayam. Natyam is when a Nirutham and Niruthiyam are combined together with music in the background. This type of dance requires the dancer's imagination and initiative to tell a story through dancing and music. There are 4 types of abhinaya in dance. They are 1. Anghika - Physical or body movements; 2. Vachika - the song being played, poetry; 3. Aaharya - Ornamentation of a character/dancer e.g. jewellery, costume and 4. Satvika - Involuntary movements e.g. trembling, break of voice, tears.

Performing yoga and Bharatnatyam involve various kids of movements and postures which affect the fitness and health of the performers. The objective of the study was to compare the two fitness components namely static balance and flexibility between teen aged female yoga students and Bharatnatyam dancers.

**MATERIALS AND METHODS**

**Subject**

For these purpose a total of thirty five (N=35) teen aged female students were selected randomly from two different districts of West Bengal. Among them eighteen were the Yoga students (N=18) and seventeen were the Bharatnatyam dancers (N=17). The average age of the yoga students was 16.47 yrs and Bharatnatyam dancers were 15.59 yrs.

**Criterion Measure**

Static balance and flexibility were considered as criterion measure for the present study.

**Tools and Test Used**

Stork stand test and modified sit and reach test were used to measure the parameters static balance and flexibility respectively.

**Statistical Procedure Adopted**

Mean and standard deviation were used as descriptive statistics and significance of difference between group means was analyzed by t-test. Only 0.05 level of significance was considered in this study. All calculations were done by Excel-2007 software.

**RESULTS AND DISCUSSION**

Mean and standard deviation of static balance and flexibility for the Yoga students and Bharatnatyam dancer have been presented in Table-1. Significance of difference between group means for Yoga students and Bharatnatyam dancers have analyzed by t-test and results have also presented in Table-1. The result present graphically in Figure-1.

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Name of the variables</th>
<th>Yoga Students</th>
<th>Bharatnatyam dancers</th>
<th>Mean diff.</th>
<th>S.E.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Static Balance</td>
<td>20.46 ± 14.20</td>
<td>16.82 ± 10.33</td>
<td>3.69</td>
<td>4.11</td>
<td>0.89</td>
</tr>
<tr>
<td>2</td>
<td>Flexibility</td>
<td>45.38 ± 5.51</td>
<td>41.88 ± 4.84</td>
<td>3.50</td>
<td>1.72</td>
<td>2.05*</td>
</tr>
</tbody>
</table>

*Significant statistically as the table value of “t” at 0.05 level of confidence was =2.04

It has found that the balance and flexibility were higher for Yoga students than the Bharatnatyam dancers. Table-1 also revealed that the difference between means for static balance between Yoga and Dancer groups were not statistically significant but the difference between means for flexibility between Yoga and Dancer groups were statistically significant. Studies related to these fields reported that regular Yoga
practice and aerobic or step dance practice can elicit improvements in the health-related aspects of physical fitness. \cite{8,9}

Higher flexibility found for yoga group in the present study might be due to that the yoga students performed yoga on regular basis whereas the dancers were not practiced and performed dance regularly. Several studies reported practicing yoga exercise helps to increases the flexibility much more. \cite{10,11} In this study the dancers performed the dance occasionally and not in regular basis. They practiced the dance for more duration before the stage show performance. As a result their flexibility as well as balance was lower than the Yoga group of students.

CONCLUSION

On the basis of above findings and within the limitation of the present study following conclusion was drawn:

- The teen aged female students performing Yoga on regular basis had significant higher level of flexibility than the female teen aged students who performed Bharatnatyam dance occasionally.

REFERENCES


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