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A Comparative Study of Flexibility and Agility between Chhou Dancers and Gymnasts

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ABSTRACT

Background: Chhou dance and gymnastics are having almost the same pattern of movement demand same type of physical fitness components with the different objectives. Both the events required strength, speed, agility, flexibility, co-ordination, balance, rhythm etc. Objectives: The main objective of the study was to compare the physical fitness components between the Gymnasts and the Chhou dancers. Procedures: Total 50 subjects, 25 from each group about 16-20 years of age were considered as the subjects from the district Purulia of West Bengal. The measured criteria were agility and flexibility. Sit and reach test was considered for testing flexibility and SEMO agility test was taken for testing agility. Findings and conclusions: The result showed the significant difference in case of flexibility but the difference in case of agility was not significant. In both the cases the gymnasts showed better performances.

Introduction

Background

Since the early stages of civilization the human beings are involved in different types of physical activity or physical movements for their survival. They had to fight throughout the day and night which involve some physical activity such as running, throwing, jumping, to search their food and shelter. From the ancient age there was an internal urge among the people to get supremacy over the others. For that reason numerous wars was held between communities and states. Gradually people felt that bloodshed and death are hinders to peaceful leaving. To promote peace and brotherhood they thought to channelize the conflict to the field of sports and culture. Thus started the sports meet, like Olympic. It gave birth of competitive sports and recreational activities where every individual tries to become triumphant and uphold the national prestige. For that reason they are looking for the proper physique, sound technique, intellectual development, tactical effectiveness etc., with the expansion of scientific knowledge.

Physical fitness enables us to perform up to our maximum potentials. It is the ability to perform daily activity vigorously and alertly, with energy left over for enjoying leisure-time activities and meeting emergency demands. By improving the basic components as flexibility, agility, strength, endurance, speed, co-ordination etc., one can develop physical fitness which causes improved health and sense of well-being, increased stamina, improved appearance and enhanced productive social life. Regular physical exercises can help to develop health related fitness as well as performance related fitness.

Dance is another form of physical movements in which the ancient people expressed their joy by overcoming their victims or surroundings the killed animal which is in fire for their food or to celebrate different religious festivals by dancing and singing. In Chhou dance this was prominent. Preliminary scripts were all based upon war situations mostly mythological. Slowly modern day situations are also revealed through this form of art. country. This dance was invented and restricted in Purulia, a district of West Bengal and some part of Orissa. Various types of masks, known as "MOHODA" are being used in this dance. Like Gymnastics this type of dance is involving performance of exercises requiring physical strength, flexibility, agility, co-ordination, balance, grace and passion. Internationally, all of the gymnastics sports are governed by the federation of international gymnastics (FIG) with each country having its own national governing body affiliated to FIG but there is no such controlling authority or higher body to look after the chhou dance. Only different organization, local clubs and some enthusiastic persons take care about it. Like Nadia Komanichi in Gymnastic, Gambhir Singh Mura is the legendry in this field of dance. Considering the same type of movement characteristics as the born residents of Purulia the present first author took interest to study the status of physical fitness of the Chhou dancers and compare them with the Gymnasts. Gradually due to some feasibility barriers she confined herself only towards the two fitness parameter assuming their maximum influence on the performance of Chhou dance and Gymnastics.

The purpose of the study was to study the present status of flexibility and agility of the Chhou dancers and the Gymnasts and to compare those two motor fitness components.

Methodology

Subjects

For this study 25 purposive subjects, age ranging between 16-20 years from Chhou dancers and Gymnasts each group were selected. The Chhou dancers were selected from various Chhou academy of Purulia district and the Gymnasts were considered from Gymnastics Association of Purulia.

Variables

1. Flexibility
2. Agility.

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Fig 1. Practice for chhou dance

Fig 2. performance of chhou dance

Fig 3. Practice for Gymnastics

Fig 4. Performance of Gymnastics

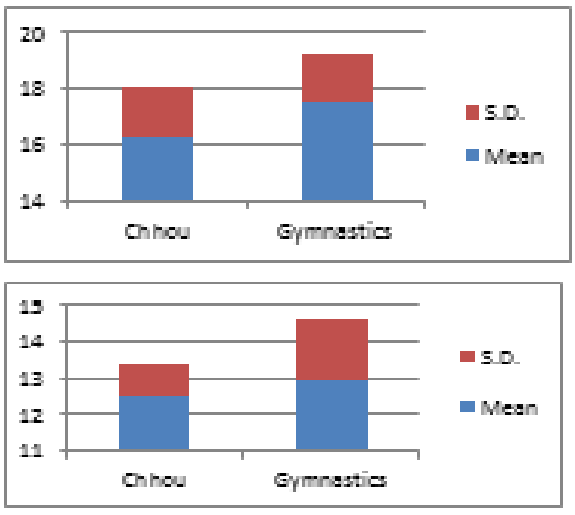

Fig 5. The graphical representation of comparison of flexibility and agility respectively

Sit and reach test was considered for testing flexibility and it was measured in nearest centimeters. SEMO agility test was taken for testing agility of each subject and it was measured in nearest seconds.

Results and discussion

After collecting the data the researchers has gone through the appropriate statistical procedure for the results. The results and analysis of results have also been presented here. The findings have been presented and discussed below with the following table and graphical representation.

Table 1: The mean, S. D. and 't' values of the physical fitness parameters of Chhou dancers and Gymnasts

Sl. No.	Variables	Chhou dancers (Mean ± S. D.)	Gymnasts (Mean ± S. D.)	't' value
01	Flexibility (Cm.)	16.25 ± 1.83	17.58 ± 1.67	2.61*
02	Agility (Sec.)	12.48 ± 0.89	12.93 ± 1.67	1.60

0.05% level of significance

From the table-1table it was clear that the flexibility differs significantly between the chhou dancers and the gymnasts but the agility not differ significantly. The flexibility of the Gymnasts is 8.2% greater than the Chhou dancers. Gymnastics may promote the development of flexibility with other physical fitness parameter (Bencke, Damsgaard, Sækmose, Jørgensen, Jørgensen, & Klausen, 2002; Bressel, Yonker, Kras, & Heath, 2007; Werner, Williams, & Hall, 2011). The gymnasts have a very good relationship in neuromuscular characteristics, such as very high levels of power, strength, flexibility, muscular endurance, speed and coordination (Jemni, Sands, Friemel, Stone, & Cooke, 2006). Aerobic gymnastics is a sport with great technical demand and needs specific characteristics in some ability: anaerobic endurance, relative strength, explosive power or strength and flexibility (López et al., 2002; Abalo Núñez, Gutiérrez-Sánchez, & Vernetta Santana, 2013). Greater the general quality of speed, strength, power, endurance, flexibility and agility the more quickly will be the specific skill he learned and once learned the better will be the performance (Belay, 1987). Cureton (1941) stated that gymnastics much more flexible than other sports especially in trunk flexion and extension. Flexibility exercises are more conducive to build endurance in movements like swimming, running, aerobic dancing and tumbling than short static and weight lifting type of exercise. Jenson and Fisher (1979) stated that a high degree of total body flexibility is desirable and unusual amount of flexibility in certain body movement is necessary for maintenance of correct body form in gymnastics. There were no such relevant results found regarding the Chhou dancers.

The agility also differs a little bit between the Chhou dancers and the gymnasts but not significantly. The agility of the Gymnasts is 3.6% greater than the Chhou dancers.

Conclusion

From the obtained result and analysis done accordingly it may be concluded that considering the referred age group, level and location of the performers the Gymnasts are remarkably more flexible in comparison to the Chhou dancers and in case of agility the gymnasts are better than the Chhou dancers without having any notable difference.

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