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Comparison of Body Composition between Bharathanatyam and Kandyan dancers

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Abstract: The purpose of this study was to compare the body composition between Bharathanatyam and Kandyan dancers. To achieve the purpose sixty (N=60) women dancers were selected from Visual and Performing Arts University, Sri Lanka, and their mean age were 17 ± 1.3 years. They were classified into Bharathanatyam Dancers (BD, n=30) and Kandyan Dancers (KD, n=30), (practice Bharathanatyam (o/r) Kandyan Dance, 60 ± 10 min / day for 5 days/ week over the period of minimum 3 years). They were measured body composition by predicting body fat from girth, the collected data were statistically treated by using independent 't' test, 0.01 level of confidence was fixed to test the significance. The result shows that Bharathanatyam dancers were better than Kandyan dancers on body composition. Hence it was concluded that, Bharathanatyam dance developed better body composition than Kandyan dance.

Key words: Body Composition, Bharathanatyam Dancers, Kandyan Dancers.

Introduction

The urge to move appears to be genetic, beginning in and continuing throughout prenatal and neonatal development. At birth, patterns of movement are in the form of primitive reflexes that are designed to guarantee the infants' survival. (Piaget, 1990). Every dance, no matter what style, has something in common. It not only involves flexibility and body movement, but also physics. Dance are dependent on social, cultural, aesthetic, artistic and moral constraints and range from functional movement to virtuoso techniques such as Bharathanatyam, Ballet, Aerobic dance, Kandyan Dance and etc.

Dance is a unique form of movement one that inspires creativity, motivation, self-discipline, and self-awareness. It is more than a mere physical movement, dance is aesthetic. Through dance, movement is transformed into a purposeful phrase of action that encompasses physical, emotion, and cognition. Dance uses "the movement of the body in its reactions to the environment" (Vanleena, 1996).

Dancers are not just performing artists; their bodies are also the instruments through which the art is created. The quality of this art, therefore, necessarily depends on the physical qualities and skills that dancers possess. The stronger and more flexible a dancer's body, the more capable it is of a wide range of movement. Nearly all professional dancers start training at a young age in order to shape and develop their body correctly. Strength is built up in the right muscles, and the bone-connecting ligaments on which flexibility of the joints is so dependent are lengthened early before they begin to harden.

A good dancer must also possess great coordination, a highly developed kinesthetic awareness, control over weight and balance in motion, and endurance is essential to continued existence of prolonged dance performance to develop awareness of space, a strong sense of rhythm, and an appreciation of music. Particularly in theatrical dance, the dancer must be able to project movement clearly and make its expressive qualities intelligible to the audience. Grace, fluidity, and harmony of body are also frequently desired in the dancer, as is physical beauty. **Bharatanatyam**: very popular dance form in South India. It is oldest of all classical dance forms in India. The general Etymology of Bharathanatyam is BHava (expression) + RAga (music) + TAala(rhythm) + NATYAM(dance). The variety and style of the dance and musical accompaniment provide to the people tastes and performing them. **Kandyan Dance**: Originated at Kandy, the Central hills region in Sri Lanka. But today it has been widespread to other parts of the country. It was originally performed by dancers who were identified as a separate caste under the Kandyan Feudal system. They were aligned to the Temple of the Tooth and had a significant role to play in the Dalada Perahera (procession) held each year in the temple. The dance waned in popularity as the support for the dancers from the Kandyan kings ended during the British period. It has now been revived and adapted for the stage, and is Sri Lanka's primary cultural export. Dance is an art form that generally refers to movement of the body, usually rhythmic and to music, used as a form of expression, social interaction or presented in a spiritual or performance setting. Hence the purpose of the study was to compare the body composition between Bharathanatyam and Kandyan dancers.

Methods

To achieve the purpose sixty (N=60) women dancers were selected from Visual and Performing Arts University, Sri Lanka, and their mean age were 17 ± 1.3 years. Bharathanatyam Dancers [(BD) (n=30, practice Bharathanatyam 60 ± 10 min / day for 5 days / week over the period of minimum 3 years)] and Kandyan Dancers [(KD) (n=30, practice Kandyan dance 60 ± 10 min / day / 5 days / week over the period of minimum 3 years)] were selected as subjects. They were measured body composition by predicting body fat from girth, the collected data were statistically treated by using independent 't' test, 0.01 level of confidence was fixed to test the significance.

Results

Table 1 : Comparison of Body Composition between Bharathanatyam and Kandyan dancers

Variable	Groups	Mean	SD	SE	t-value
BC	B	23.	3.53	0.64	3.21*
	D	67			
	K	26.	2.50	0.46	
	D	20			

*Significant at .01 level of confidence. withdf (1, 58) is 2.66

Result and Discussion

The result of the study shows that Bharathanatyam Dancers(BD) have better body composition (BC) thanKandyan Dancers(KD.)

Dance is an art form that generally refers to movement of the body, usually rhythmic and to music, used as a form of expression, socialinteraction or presented in a spiritual or performance setting. The dance movements may be without significance in themselves, such as in classic dance and folk dance. Bharathanatyam and Kandyan danceare salient feature of the aesthetic, artistic and graceful form of dance, and sacred in Indian and Sri lankan culture, codifies dance into a series of rules determining the gestures used to depict different themes and emotions.

It may indicate the associated dance training out comes could be affected by such difference in duration, intensity and frequency of dance they undergone. Regular dance training essential for maintain and developing the dancer's technique and coordination. The energetic demands during these training sessions stand in rather sharp contrast to those which can exist during stage performance.

Dance also can be a substitute for a cardiovascular gym workout. Dance can be an excellent cardiovascular workout when done regularly. It would result in the same health benefits associated with any form of activity that involves sustained effort in the target heart rate zone which improves body composition. Step aerobics has become gradually more popular in fitness and weight loss programmes (Olson MS .1991)

The results (J Hum Ergol,1994) shows that eight weeks of practicing the Modern Balinese Baris Dancing Exercise(MBBDE) improved body composition. Henry N. Williford et-al(1987) examined The physiologic effects of eight weeks of aerobic dance with and without hand-held weights and the findings suggest that hand-held weights may be used safely but do not increase the work load sufficiently above that of aerobic dance alone to significantly modify VO_2 max or body composition.

Irwin et al (2003). reported that an increase in the duration (mins/week) of physical activity was significantly associated with a reduction in the subjects' total fat. Amano et al (2001). applied aerobic exercises in a three months series of 30 minute sessions on three days per week with obese subjects. They found a significant difference between the subjects' average weight, BMI, fat body percentage and lean body mass before and after training.culturally-specific dance intervention significantly influenced the body fat and BMI of sedentary African-American women over an eight-week period. (Murrock CJ and Gary FA. 2010)

The formal dance class has long been considered the cornerstone of training, providing all the technical, physical and aesthetic requirements of dance. In recent years a considerable amount of research has been carried out regarding the health of dancers. Findings from this research indicate that many dancers are not as fit and healthy as they could be. It has also been found that there is a discrepancy in the physical intensity level between training, rehearsal, and performance. This means that training methods, which are generally based on tradition, are not sufficient to help prepare dancers for the higher, more physically demanding aspects of performance. In light of these studies, and with increased understanding of the artistic and athletic needs of dancers in different genres, it is no longer acceptable to train dancers without preparing them physiologically

for the demands of current choreographic work. In the present investigation, the bharathanatyam dance practice positively influences on body composition than kandyam dancers.

Conclusion

Any professional or amateur dancers will undergo special training to improve fitness and reduce the risk of injury that will leads prolonged dance careers as well as extreme theater performance.

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