

COMPARATIVE EFFECT OF AEROBIC, BHARATHANATYAM AND KANDYAN DANCE ON PULMONARY FUNCTION.

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Abstract

Breathing is one of the critical bodily function which the lungs deliver vital oxygen to the blood, and expire carbon dioxide out of the body. Dance training can help to strengthen and make this system more efficient. The aim of this study was to find out the effect of Aerobic, Bharathanatyam and Kandyan dance training on Pulmonary Function. Ninety (N=90) women students (mean age 17 ± 1.3 years) were randomly selected from, Jaffna, Sri Lanka and divided in to Aerobic Dance (AD), Bharathanatyam Dance (BD) and Kandyan Dance (KD) groups. They were practice their respective dance for 60 ± 10 min / day for 3 days / week over the period of twelve weeks. All the dancers have at least three years experience in their respective dance. Data were collected on Forced Vital Capacity (FVC) and Forced Expiratory Volume (FEV) by PC based USB Spirometer before and after the intervention programme. Dependent 't' test was used to find out the difference between pre and post test. After eliminating the influence of pre-test on post-test means of experimental groups the analysis of variance (ANOVA) was used to find out the mean gain differences. In addition to this, Scheffe's post-hoc test was employed ($p=0.05$). The results of the study shows aerobic, bharathanatyam, kandyan dance training significantly ($p=0.05$) influence the forced vital capacity (F 8.18*) and Forced Expiratory Volume (F 14.33*). Further the result of post hoc test showed that there was a significant difference between Aerobic, Bharathanatyam and Kandyan dance groups on Forced Vital Capacity and forced expiratory volume. However between Bharathanatyam dance and Kandyan Dance insignificant difference was observed on vital capacity (Confidence Interval (CI) 0.25). From the result it was concluded that aerobic, bharathanatyam and kandyan dance training positively influence on pulmonary function in respect of forced vital capacity and forced expiratory volume. Hence it was recommended that, dancers have to undergo periodized fitness training to enhance their theater performance.

Keywords: Bharathanatyam, Aerobic, Kandyan Dance, FVC, FEV.