

Comparison of Physiological Parameters between Amateur and Professional Bharathanatyam Dancers

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Bharathanatyam Dance has a huge potential for everyone in contributing to healthier lifestyles and impact positively on physical and physiological performance. The objective of this study was to compare physiological parameters such as Resting Heart Rate (RHR), Blood Pressure (Systolic (SBP) and Diastolic (DBP) Blood Pressure) and VO₂ max between professional and amateur bharathanatyam dancers. Sixty [(N=60), (age 19-23) (BMI 27 ± 1.5)] women Bharathanatyam dancers were selected from Jaffna, Sri Lanka, and they were classified into Professional Dancers [(PD) (n=30, practice bharathanatyam 90 to 120 min / day for 5 to 6 day / week over the period of minimum 5 years)] and Amateur Dancers [(AD) (n=30, practice bharathanatyam 30 to 60 min / day / 2 to 3 day / week over the period of minimum 5 years)]. Their Resting Heart Rate (RHR) using Palpating the radial artery for full one minute for each subject and blood pressure (SBP, DBP) using Standardized sphygmomanometer and stethoscope and VO₂ max assessed by Queen's step test. The resting heart rate and blood pressure were taken during early morning hours and the collected data were statistically treated by using independent 't' test, 0.05 level of confidence was fixed to test the significance. The results of the study shows that Professional Dancers had lesser Resting Heart Rate (RHR) (mean 68.47), Systolic Blood Pressure (SBP) (mean 113.23), Diastolic Blood Pressure (DBP) (mean 77.17) and higher VO₂ max (mean 46.67) than Amateur Dancers [RHR (mean 77.93), SBP (mean 117.83), DBP (mean 80.50) and VO₂ max (mean 44.33)]. Hence it was concluded that, professional bharathanatyam dance practice positively influence on physiological parameters in respect of RHR, SBP, DBP and VO₂ max than amateur dancers. In the light of these studies, and with increased understanding of the artistic of dancers in different genres, it means dancers have to prepare physiologically to tolerate extreme theater demands. However submaximal dancing intensity was adequate for dancers to improve physiological parameters.

Keywords: Bharathanatyam, Blood Pressure, VO₂ max, RHR