

Abstract

Title: The level of static balance of professional latin american dancers aged 18-30 in relation to their dance classes

Objectives: The main aim of this study was to determine the level of postural stability and to compare its level between dance classes in dancers of Latin dancing. The partial aim of this study was to evaluate the level of motor docility in dancers and also to compare the level of postural stability between male and female dancers.

Methods: The research group consists of 31 dancers of Latin dancing ($n = 31$, age = 22.7 ± 3 years, height = 172.8 ± 9.5 cm, weight = 63.5 ± 10.7 kg) from various dance classes, aged from 18 to 30 years. The dancers were subjected to body composition measurements on a Tanita instrument (Tanita Corporation, Japan) and then postural stability measurements on a FootScan pressure plate (International, Belgium). 4 tests were used to evaluate the level of postural stability (narrow stand with eyes open and closed - 30 s, stand on the right and left lower limb - 60 s). The evaluated parameters of postural stability were the total travel way (TTW) of the center of pressure (COP). The arithmetic mean was used to express the level of postural stability, and the T test was used to determine the statistical significance of the differences, and Cohen's d was used to assess materiality. Only statistically significant results ($p < 0.05$) and a coefficient d above 0.2 were accepted.

Results: In the comparison with level of postural stability of dancers from lower (EDC) and higher (BAM) dance classes, higher class dancers show better results, but no statistically significant difference was found. We found a better level of postural stability in women than in men, but the difference was not statistically significant. We found the improvement in the postural stability results of the second measurement in three of the four tests, but no statistically significant difference was found.

Keywords: dance, postural stability, pressure platform, measurement