


ARTICLE



Effect of diurnal aerobic intervention on indicators of body composition of young women

Pavol Pivovarniček^a, Dominika Kondrátová^a, Ľudmila Jančoková^a, Tomáš Malý^b , Mikuláš Hank^b, Pavel Hrásky^b, Lucia Malá^b and František Zahálka^b

^aDepartment of Physical Education and Sports, Faculty of Arts, Matej Bel University, Banská Bystrica, Slovak Republic; ^bHuman Movement Laboratory, Faculty of Physical Education and Sport, Charles University, Prague, Czech Republic

ABSTRACT

The aim of this study was to compare the effect of morning and evening movement intervention on the following indicators of body composition: ratio (extracellular mass/body cell mass [ECM/BCM]), phase angle (PA), muscle mass (MM), and percentage of total body fat mass (FM%) in university female students with neutral chronotype who perform exercise in the morning (morning group [MG], $n = 25$, or evening (evening group [EG], $n = 26$). Statistical analysis did not show significant differences between the MG and EG: ECM/BCM, $MG_{PRE-POST} -0.001 \pm 0.10$ vs. $EG_{PRE-POST} -0.03 \pm 0.07$, $t = -1.121$, $p > 0.05$, $d = 0.16$; PA, $MG_{PRE-POST} 0.18 \pm 0.29$ vs. $EG_{PRE-POST} -0.28 \pm 0.31$, $t = 1.201$, $p > 0.05$, $d = 0.17$; MM, $MG_{PRE-POST} 0.3 \pm 1.2$ vs. $EG_{PRE-POST} 0.4 \pm 1.0$, $t = 0.081$, $p > 0.05$, $d = 0.01$; FM%, $MG_{PRE-POST} -0.04 \pm 1.5$ vs. $EG_{PRE-POST} -0.2 \pm 1.3$, $t = -0.307$, $p > 0.05$, $d = 0.04$. Results did not show significant difference in effect ($p > 0.05$) of morning and evening intervention on changes in body composition in the selected population.

ARTICLE HISTORY

Received 13 February 2019

Accepted 17 February 2019

KEYWORDS

Aerobic; chronotype; morning exercise; evening exercise; university female students