Abstract

Aims: To determine if adolescents with and without Down syndrome (DS) accomplish the physical activity (PA) guidelines and to evaluate relationships between PA and cardiorespiratory variables. Methods: 42 adolescents (27 with DS) participated in this study. PA was measured using accelerometers. Walking-graded treadmill protocol with a breath-by-breath gas analyzer was employed to assess cardiorespiratory fitness. Results: Adolescents with DS spent less time in sedentary PA, moderate PA (MPA), vigorous PA (VPA) and moderate to vigorous PA (MVPA) than those without DS. VO2peak was correlated with total minutes spent in light PA, MPA, VPA and MVPA in the control group (from r = 0.55 to r = 0.61, p < 0.05) and with MPA and MVPA in the DS group (from r = 0.38 to r = 0.41, p < 0.05). Conclusion: Nor DS neither control groups achieved at least 60 minutes of MPA daily. Engaging more time in MPA was associated with greater cardiorespiratory fitness in adolescents with DS.

Keywords