Poster Presentation

Music Effects on Gait in Young and Old Adults

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Exercise Science

Listening to music while walking down the street or exercising in the gym is common. The purpose of this study was to analyze the effect of listening to music on three measures of gait in two different age groups. Younger (N=17, age range = 19-25 years) and older adults (N=12, age range = 68-82) each performed a total of three self-selected paced walking trials under four different conditions while listening to: no music, music at a tempo matching their no music cadence, music at a “slow”-tempo, and music at a “fast”-tempo. The order of the trials performed to music were counterbalanced across participants. The “slow” and “fast” conditions were approximately 10% slower and faster than the average walking cadence (Yu et al., 2015). The median value per condition was analyzed for the variables of cadence, speed, and step length for each age group. The multifactorial, repeated-measure ANOVA approached significance (p=.052) for the younger adults but was not significant for the older adults (p=.259). Although not significant, younger adults increased their gait speed for all music versus no music conditions. For the older adults, the cadence appeared to increase with increased music tempo although their gait speed did not change. Similar to other findings, music has a stimulating effect on gait performance for younger adults (Bruin et al., 2015), while older adults may not have attended to the music as much as their younger counterparts. Music listening preferences by generation may have caused differences in results.