Background

Walking football is a form of locomotor exercise in which participants move a small ball by walking, running, or jumping. The primary objective is to maintain the ball within a designated area while advancing towards a goal. This unique form of exercise is gaining popularity as a means of promoting fitness and health, particularly among community groups and schools. However, the metabolic intensity and stepping cadence of competitive walking football have not been extensively studied.

Methods

A total of 40 participants (22 females and 18 males) from a competitive walking football tournament were included in the study. Accelerometric data were collected using triaxial accelerometers (ActiGraph GT3X) worn on the waist at the level of the top of the iliac crest. The data were synchronized with a central server and analyzed to provide average metabolic equivalents (METs) and stepping cadence over the course of each match. The primary outcome measures were the average METs and stepping cadence during each match.

Results

The average METs during competitive walking football matches were 3.9 ± 0.7, with a range of 2.8 to 5.1. The stepping cadence averaged 44 ± 10 steps/min, with a range of 35 to 56 steps/min. There were no significant differences in METs or stepping cadence between male and female participants. The average METs and stepping cadence were significantly lower than the 100 steps/min threshold. The correlation between METs and stepping cadence was found to be 0.53 (p = 0.001).

Conclusions

Competitive walking football is played at moderate intensity, with an average METs of 3.9 ± 0.7 and stepping cadence of 44 ± 10 steps/min. These findings support the premise that walking football is effective for promoting physical activity and health, particularly among community groups. Further research is needed to explore the potential public health benefits of competitive walking football.