

The WISH study: The effect of peer-led Walking In Schools on school-time physical activity

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Children and young people (<18 years) are currently recommended to engage in at least 60 minutes and up to several hours per day of moderate-to-vigorous physical activity (MVPA)⁽¹⁾. Recent data have highlighted that many young people are failing to meet these recommendations⁽²⁾, and given the observed decline in physical activity as children move into adolescence, and the earlier onset of this decline in girls⁽³⁾, this stage of the lifecycle represents a key period for intervening to promote physical activity. This aim of this study was to evaluate the effects of a 12 week peer-led brisk walking programme, delivered within the post-primary school setting, on physical activity levels in adolescent females.

199 adolescent females aged 12.6 ± 0.5 years (mean BMI 19.8 ± 4.1, 26 % overweight/obese) in 6 schools volunteered to participate in the study. Schools were randomly assigned to participate in a school-based peer-led brisk walking programme or to receive no additional PA (control). Intervention content was guided by findings from qualitative focus group work conducted within this population⁽⁴⁾. During the intervention period a number of opportunities to complete 15 minute walks were offered on a daily basis, around the school grounds, and these walks were facilitated by older students (aged 15–17), trained as walk leaders. The walk leader was asked to ensure that walking was at a sufficient pace to elicit moderate intensity activity. PA was measured objectively at baseline and 12 weeks using an Actigraph GT3X accelerometer worn for 7 consecutive days. School-time PA (weekday 08:30–16:00) was determined for all participants with ≥3 school days of valid wear. A mixed between-within subjects ANOVA was conducted to compare the effect of the intervention on subsequent time spent in PA or sedentary behaviours, across the two study time periods (i.e. baseline, 12 weeks).

121 participants had valid accelerometer data for inclusion in subsequent analysis. The table below compares the time (minutes/day) spent in sedentary behaviour and light intensity, moderate intensity, vigorous intensity and total PA during the school day.

| | Baseline | | 12 weeks | | Change (95 % CI) | p value |
|---------------------------|----------|---------|----------|---------|-----------------------|---------|
| | Mean | SD | Mean | SD | | |
| Time (minutes/day) | | | | | | |
| Sedentary | | | | | | |
| Control (n67) | 309.57 | (23.85) | 307.33 | (26.19) | −2.24 (−7.74, 3.27) | 0.002 |
| Intervention (n54) | 325.70 | (21.48) | 316.82 | (24.00) | −8.88 (−13.84, −3.92) | |
| Light PA | | | | | | |
| Control | 119.24 | (19.50) | 116.54 | (19.53) | −2.69 (−6.89, 1.51) | 0.005 |
| Intervention | 104.12 | (18.99) | 112.62 | (22.85) | 8.50 (3.61, 13.38) | |
| Moderate PA | | | | | | |
| Control | 16.80 | (6.28) | 19.84 | (7.71) | 3.05 (1.72, 4.37) | 0.101 |
| Intervention | 15.51 | (5.82) | 17.57 | (5.52) | 2.06 (0.59, 3.53) | |
| Vigorous PA | | | | | | |
| Control | 5.40 | (4.06) | 6.29 | (5.93) | 0.89 (−0.38, 2.15) | 0.066 |
| Intervention | 5.09 | (3.81) | 3.98 | (3.10) | −1.11 (−1.97, −0.25) | |
| Total PA | | | | | | |
| Control | 141.43 | (23.85) | 142.68 | (26.06) | 1.24 (−4.07, 6.55) | 0.002 |
| Intervention | 124.73 | (22.04) | 134.18 | (24.00) | 9.45 (4.39, 14.52) | |

The intervention increased total daily PA and decreased in sedentary behaviour in adolescent females but did not change moderate-to-vigorous physical activity (MVPA). These findings suggest that whilst a school-based peer-led walking intervention may be feasible and can elicit changes in PA and sedentary behaviour, the self-selected walking speeds determined by a peer-leader may not be sufficient to reach MVPA in this age group.

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4. Carlin A, Murphy MH & Gallagher AM (2014) *Proc Nutr Soc* 73 (OCE2), E110.