Children's Hospital of Philadelphia PolicyLab

Adolescent Physical Education Class Participation as a Predictor for Adult Physical Activity

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BACKGROUND: The aim of this study was to determine whether engagement in more physical education (PE) classes during one high school year is associated with change in physical activity (PA) from adolescence to young adulthood.

METHODS: Data were from 1774 participants in Waves 2 (high school, 1996) and 4 (young adulthood, 2008) of the National Longitudinal Study of Adolescent to Adult Health. The predictor was number of PE classes/week in high school (daily, some, or none). The outcome was change in moderate-to-vigorous physical activity (?MVPA) over the 12-year period. ?MVPA was based on differences in MVPA scores derived at each wave from responses to a physical activity behavior recall (range, -9 to 9 scale score or -15 to 15 MVPA episodes/week). Multivariable generalized linear models examined the association between PE participation and ?MVPA, adjusting for sociodemographics, weight status, and school clustering.

RESULTS: In high school, 34.7% participated in daily PE, whereas 50.1% participated in none. Participation in more PE classes was associated with greater MVPA in high school (mean $MVPAW2_{none}$ = 3.11, standard deviation [SD] = 1.99; mean $MVPAW2_{some}$ = 3.70, SD = 2.00; mean $MVPAW2_{daily}$ = 4.31, SD = 1.95; $p < 0.0001$). Overall, MVPA decreased over the 12 years (median ?MVPA = -1.0, or 1-2 MVPA episodes/week). MVPA decreased more for males (median $?MVPA_{male}$ = -1.0, interquartile range [IQR] = -3.0 ± 1.0; median $?MVPA_{female}$ = 0.0, IQR = -2.0 ± 2.0; $p < 0.0001$) and those who had participated in some/daily PE (median $?MVPA_{some}$ = -1.0, IQR = -3.0 ± 1.0; median $?MVPA_{daily}$ = -1.0, IQR = -3.0 ± 1.0) than those not in PE (median $?MVPA_{none}$ = 0.0, IQR = -2.0 ± 2.0; $p < 0.0001$). The relationship between PE and ?MVPA was maintained in multivariable analyses ($?_{some}$ = -0.58, standard error [SE] = 0.18; $p = 0.002$; $?_{daily}$ = -0.93, SE = 0.16; $p < 0.001$).

CONCLUSIONS: High school PE participation did not prevent declining PA from adolescence to young adulthood.

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