

A Systematic Review of Pedometer-or Accelerometer-Based Interventions for Increasing Physical Activity in Low Socioeconomic Groups

Authors : Shaun G. Abbott, Rebecca C. Reynolds, James B. Etter, John B. F. de Wit

Abstract : The benefits of physical activity (PA) on health are well documented. Low socioeconomic status (SES) is associated with poor health, with PA a suggested mediator. Pedometers and accelerometers offer an effective behavior change tool to increase PA levels. While the role of pedometer and accelerometer use in increasing PA is recognized in many populations, little is known in low-SES groups. We are aiming to assess the effectiveness of pedometer- and accelerometer-based interventions for increasing PA step count and improving subsequent health outcomes among low-SES groups of high-income countries. Medline, Embase, PsycINFO, CENTRAL and SportDiscus databases were searched to identify articles published before 10th July, 2015; using search terms developed from previous systematic reviews. Inclusion criteria are: low-SES participants classified by income, geography, education, occupation or ethnicity; study duration minimum 4 weeks; an intervention and control group; wearing of an unsealed pedometer or accelerometer to objectively measure PA as step counts per day for the duration of the study. We retrieved 2,142 articles from our database searches, after removal of duplicates. Two investigators independently reviewed titles and abstracts of these articles (50% each) and a combined 20% sample were reviewed to account for inter-assessor variation. We are currently verifying the full texts of 430 articles. Included studies will be critically appraised for risk of bias using guidelines suggested by the Cochrane Public Health Group. Two investigators will extract data concerning the intervention; study design; comparators; steps per day; participants; context and presence or absence of obesity and/or chronic disease. Heterogeneity amongst studies is anticipated, thus a narrative synthesis of data will be conducted with the simplification of selected results into percentage increases from baseline to allow for between-study comparison. Results will be presented at the conference in December if selected.

Keywords : accelerometer, pedometer, physical activity, socioeconomic, step count

Conference Title : ICBNPA 2015 : International Conference on Behavioral Nutrition and Physical Activity

Conference Location : Sydney, Australia

Conference Dates : December 10-11, 2015