A pedometer-based walking intervention in 45- to 75-year-olds, with and without practice nurse support: the PACE-UP three-arm cluster RCT

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Plain English summary

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Physical inactivity is common and causes ill health. Walking briskly enough to make you warm and increase breathing and heart rate, but allow conversation, is moderate-intensity physical activity. Brisk walking for 30 minutes most days is a good way to improve health. Pedometers measure step counts and can increase physical activity levels, but few studies involving pedometers have objectively measured participants’ physical activity or included long-term follow-up.

The Pedometer And Consultation Evaluation-UP (PACE-UP) trial recruited 1023 inactive 45- to 75-year-olds from seven South London practices, and randomised them to a usual physical activity (control) group or to one of two intervention groups. The postal group participants were sent a pedometer, diary and 12-week pedometer-based walking programme, advising them to gradually add in 3000 steps or a 30-minute walk on 5 or more days weekly. The nurse-support group received the same materials through practice nurse physical activity consultations. Physical activity and participant-reported 12-month outcomes were compared with the beginning of the trial, along with the costs of each trial group. A further 3-year follow-up was conducted and long-term value for money was estimated.

Both intervention groups significantly increased their walking (step counts and time in moderate-intensity physical activity) compared with controls, with no difference between nurse and postal groups. Interventions were safe and acceptable to participants and nurses. There was no effect on body size, pain or depression, but the nurse-support group participants increased their confidence in their ability to exercise. The 3-year follow-up found persistent positive effects of both interventions on physical activity levels. The postal intervention provided more value for money than the nurse-support group or the control group in the short and long term.

A primary care pedometer intervention, delivered by post or with nurse support, could provide an effective way to increase physical activity levels in adults and older adults, with the postal route offering the most value for money.
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