The effectiveness and cost-effectiveness of a very brief pedometer-based intervention (Step it Up) delivered as part of the NHS Health Check: The VBI trial
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Context:
Regular physical activity reduces the risk of developing a number of health problems.
Walking an extra 1,500 steps a day could result in a 14% reduction in health risks. 3
Indirect and direct costs of physical inactivity amount to £1.06 billion annually. 2
Interventions can be effective in increasing physical activity 4 but not much is known about very brief interventions of 5 minutes or less and whether they could be effective in general health settings such as the NHS Health Check.
NHS Health Checks offer vascular risk assessment and appropriate risk management to the adult population between the ages of 40 and 74 years. 5

Results:
The CONSORT Diagram:

Study group and between-group differences at three-months follow-up of objectively measured physical activity and cost-effectiveness

Our Very Brief Intervention:

Behaviour Change Techniques (BCTs)3 of the Step it Up Intervention

Discussion:
This was a high-quality trial: well-balanced sample, 85% retention, no differential dropout, objective measure.
Step it Up did not result in higher levels of objective and self-reported physical activity at three months than the NHS Health Check alone even though recall of physical activity discussions were higher in the intervention group than in the control group. The cost of delivering the Step it Up intervention was £18 per participant. There was no significant difference in NHS resource use between study groups.
Potential explanations:
- Insufficient fidelity of delivery, however process evaluation of the same VBI in the preliminary trial4 suggests that feasibility, acceptability and fidelity are unlikely to explain the findings of this trial – fidelity assessment for the main trial is ongoing.
- We recruited an already physically active sample:
  - Based on the physical activity assessment during the NHS Health Check, only 31% of our participants were reported to be (moderate or vigorous) inactive.
  - Compared to the PACE-Lift trial5 (a trial of a pedometer-based intervention in primary care) our participants were more active.
  - Our control group is the best estimate of baseline physical activity in our cohort; the ‘most plausible’ point estimate of the Incremental Cost-Effectiveness Ratio is slightly in favour of Step it Up, thus doing something could be better than doing nothing.

Based on the objective physical activity measures, our findings do not support commissioning of a very brief pedometer-based intervention as part of NHS Health Checks. There is also no significant difference in costs but the ‘most plausible’ point estimate of the Incremental Cost Effectiveness Ratio is slightly in favour of Step it Up, thus doing something could be better than doing nothing.

References

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