Walking for health

The first randomised control trial

Randomised control trials, one of the most thorough evaluation tools, are widely used in the medical sector to test new drugs or treatments. 'Walking for health' was put through this rigorous process and showed promising results.

Summary

More than seven out of every ten people in England do not take enough exercise to benefit their health. Some GPs call this 'the silent epidemic'. It lies behind more than a third of all deaths from coronary heart disease. A possible spur to increasing physical activity is one-to-one advice from primary health care professionals. Recommendation to take part in local 'walking for health' schemes is potentially a cheap and effective way for primary health care practitioners to encourage sedentary people to become more active.

However, the difficulties of studying human behaviour in real life settings means that little scientific research into the effectiveness of this approach has been undertaken. For this reason, a randomised control trial involving the Thames Valley Health Walks scheme was set up to measure effectiveness in increasing the levels of physical activity in sedentary people.

Main findings

In terms of increasing the number of sedentary people in the sample who were still taking moderate-intensity physical activity after twelve months, Health Walks outperformed advice on its own by 13 per cent. This was a very encouraging result. Health Walks appear to be at least as effective as other primary care based schemes and are likely to be cheaper.

People's motivation to do more exercise had markedly increased by the end of the trial.

Background

Physical activity can confer considerable health benefits, particularly a reduction in the risk of cardiovascular disease. However, we lack effective means of encouraging sedentary people to exercise. Walking schemes offer considerable potential because they are structured, supervised, low cost and emphasise low to moderate levels of physical activity.

Working for people and places in rural England
'Walking for health' schemes are being set up across the UK to encourage people to become more active. One scheme is the Thames Valley Health Walks, which comprises led walks (2 to 4 miles long) and a self-help information pack. It aims to provide people with opportunities to walk in their local area, in safety, and in the company of other people.

A randomised control trial was undertaken of the Thames Valley Health Walks scheme to investigate whether it helped people who were sedentary to increase and sustain increased physical activity over a one-year period. The trial focused on people who were not particularly motivated to exercise. A 'sedentary' person was defined as one taking less than 120 minutes of moderate-intensity physical activity per week. Physical activity included organised sports and exercise as well as walking, housework and gardening.

Methods

Sedentary volunteers were recruited from general practitioner records and then divided into two groups. Both groups received general advice about exercise and health, highlighting how much exercise should be undertaken to ensure fitness. One group was also offered the opportunity to participate in the Health Walks scheme. People were monitored for twelve months to measure changes in physical activity, fitness, motivation to exercise and quality of life. At the end of the year, the results for people who received advice only were compared with those in the Health Walks group.

The study participants did not decide which group to join; this was decided by random allocation. This method, commonly used in medical research, helps to ensure that groups are evenly matched before a trial begins so that any differences found at the end of the study are due to the intervention in question. The intervention in this study was Health Walks.

Results

Two hundred and sixty people participated in the trial. They were aged between 40 and 70 years old (mean age 50.3); 49% were men; all were unfit in terms of aerobic fitness and had at least one known risk factor for cardiac
disease. Of those invited to take part in Health Walks, just over a third attended a led walk. These Health Walk participants varied in the number of led walks they went on (shown in Figure 1). Although the average was only six walks per year, some took as many as 55 walks. The low number of walks taken on average did not detract from the main interest of the trial which was overall physical activity levels, rather than just the quantity of walking activity within the scheme.

![Figure 2: Number of active people at 0, 6 and 12 months](image)

After six months, there was a small increase in the numbers of people who became physically active in both groups (i.e. took more than 120 minutes of moderate intensity physical activity per week), but no suggestion that the Health Walks were better than advice on its own (Figure 2). Although people in the Health Walks group did not show a greater increase in physical activity than those in the advice only group, they did show improvements in motivation and attitude to exercise that the people in the advice only group did not.

However, by twelve months there was a significantly greater proportion of people who became and stayed active in the Health Walks group (35.8%) compared with the advice only group (22.9%). This difference was nearly 13% (and statistically significant). This is very encouraging, as attempts to increase physical activity in sedentary people often have little or no lasting effect. Improvements in physical activity were also accompanied by modest increases in aerobic fitness. There were no statistically significant changes measured in body mass index, blood pressure, resting heart rate or cholesterol levels.

People’s motivation towards exercise was also measured and any changes tracked during the trial. Figure 3 shows that, over the 12-month trial period, there was a significant reduction in the number of people who had ‘no intention of doing exercise’ (the number fell by 5 in the Health Walks group between the start and end of the trial) and in those who were “thinking of doing exercise” (the number in the Health Walks group fell by 11). By contrast there was a large increase in the number of people who had ‘started recently doing exercise’ and in those who took regular exercise. These findings were mirrored in both groups.
Conclusion
The study showed that Health Walks were more effective than advice only in encouraging sedentary people to engage in moderate-intensity physical activity. It is important to note that, although the Health Walks were successful, a significant number of people remained sedentary one year later. More detailed results of this study are available in an extended report (Lamb, Bartlett and Ashley, 2000).

The research was jointly funded by the British Heart Foundation and the Countryside Agency as part of their Walking the way to Health initiative (www.who.org.uk). We wish to acknowledge the involvement and support of Patricia Knight, Thames Valley Health Walks Project Officer, and Sallie Lamb the principal researcher from Oxford Brookes University.

Further reading


Countryside Agency Research Notes can also be viewed on our website: www.countryside.gov.uk