Physical activity promotion in primary care targeting the older adult

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CRD summary
This review concluded that physical activity promotion by a primary care provider could lead to at least short-term increases in physical activity. The review methods, the quality of the evidence, and the study results were not well reported, so the conclusions of this review may not be reliable.

Authors' objectives
To review the effect of physical activity promotion in primary care on levels of physical activity in older adults.

Searching
MEDLINE, CINAHL and ProQuest were searched to May 2010 for studies published in English, search terms were reported. An ancestry search was performed by checking the references of relevant reviews and articles, and checking the references of any further articles found.

Study selection
Randomised and non-randomised studies, with or without a control group, were eligible for inclusion if they investigated physical activity promotion, in primary care, for adults aged 50 years or older. Their aim had to be to increase the level of physical activity of the participants, and their adherence to physical activity had to be reported as an outcome. Studies offering physical activity promotion as part of a package of health promotion interventions, such as smoking cessation and dietary change, were included.

The included studies were conducted in the USA, Australia, England, Canada, Switzerland and the Netherlands, and they were published between 1995 and 2009. Physical activity interventions varied, but most included some form of counselling, printed material, letters or interviews. Most studies concentrated on physical activity promotion; two offered counselling as part of a healthy lifestyle package that included immunisation, and alcohol and smoking cessation. Advice was provided by primary care physicians, and participants were healthy older adults who were recruited by mail invitations or in the physician's office. Where there was a control group, they received standard care, brief verbal advice or counselling, or were on a waiting list. Where reported, the average time spent in the initial office visit, with the intervention, ranged from three to 15 minutes.

The authors did not report how many reviewers selected the studies.

Assessment of study quality
Study quality was not assessed, but some methods, such as the use of a control group and intention-to-treat analysis, were discussed.

Data extraction
The self-reported outcomes of physical activity were extracted. Interventions were considered to have been effective if their participants had increased their physical activity above any increase in the control group or had increased it from baseline. The data were extracted by one reviewer.

Methods of synthesis
The results were presented in a narrative synthesis and in tables.

Results of the review
Eleven studies were included. Eight were randomised controlled trials (6,259 participants), two were pilot studies (49 participants), and one was a qualitative pilot study (38 participants). Six of the eight trials used Intention-to-treat analysis, five randomised by patient, and four had true control groups (in which there was no activity advice).

Seven of the 10 studies that reported physical activity outcomes, found that their intervention was effective in increasing physical activity. Only one study reported whether or not the participants achieved their physical activity
guideline goals, and this found no effect.

Three studies reported that provider reimbursements were given for the first visit, for the time in training, or both; one of these reported a positive effect of the intervention on physical activity.

**Authors' conclusions**
Physical activity promotion by a primary care provider could lead to at least short-term increases in physical activity.

**CRD commentary**
This review had a clear research question and reported the inclusion criteria for study design, intervention, participants and outcomes. A wide range of databases was searched, but only studies published in English were included, risking language and publication bias. One author extracted the data and the number of people who selected the studies was not reported, so a risk of error and bias in these steps cannot be ruled out. Study quality was not formally assessed, but some aspects were discussed. The significance of the results was reported in tables, but no results and no data were given.

Due to the lack of reporting of the review methods, the quality of the evidence, and the study results, the conclusions of this review may not be reliable.

**Implications of the review for practice and research**
**Practice:** The authors stated that primary care providers should change from reactionary treatment of disease to proactive promotion of health and prevention of disease, including physical activity promotion.

**Research:** Research should investigate the relationship between the time spent on the intervention and the physical activity outcomes; brief office-based physical activity counselling sessions; modern technology in the interventions; and provision by primary care providers, ancillary health care workers, or specialists. Studies should have sufficient follow-up, sampling methods, sub-analyses and outcome measurement tools.

**Funding**
Not stated.

**Bibliographic details**

**PubMedID**
22735064

**DOI**
10.1111/j.1745-7599.2012.00703.x

**Original Paper URL**

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Age Factors; Aged, 80 and over; Aging; Geriatric Nursing /methods; Health Promotion /methods; Health Surveys; Humans; Motor Activity /physiology; Sedentary Lifestyle; Social Marketing

**AccessionNumber**
12012036256

**Date bibliographic record published**
18/10/2012
Date abstract record published
25/02/2013

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.