

Formal evaluation of the first phase of the campaign is reported in detail elsewhere.⁶ Campaign awareness and walking related knowledge and beliefs were monitored through adult population surveys. Self reported changes in physical activity levels were assessed through a panel study involving a sample (initially 700) drawn from the 4036 people who had called the helpline during its first six weeks. A composite measure of “stage of change” (precontemplation, contemplation, preparation, action, maintenance) was derived from information provided by helpline callers at baseline and follow up.⁷ The rate of successful follow up at one year in the panel study was 58%. The sociodemographic profile of respondents at one year was similar to that at baseline, except for a slightly higher attrition rate for younger people.

Campaign awareness was highest in the primary target group (socioeconomic groups C2DE). There was before/after evidence of an impact on the general adult population’s knowledge and beliefs about walking as a form of exercise, the biggest increase being in knowledge of exercise equivalence information specific to the campaign. This is evidence of success of the major campaign objective of “repositioning” walking in the minds of the public. Also, in the panel study there was a discernible shift in stage of change (in the right direction) between baseline and follow up. Furthermore, 48% of the helpline callers successfully contacted at one year reported being more active.

The panel study of helpline callers was of course potentially open to initial self selection bias, and to subsequent drop out and “desire to please” bias. Suppose for the sake of argument that almost 2000 people (48% of 4036) were motivated and helped to become more active through the advertisement and helpline. Even in the absence of any such effect on people who viewed the advert but did not call the helpline—and disregarding the important informing and agenda setting roles of the campaign—this would be a worthwhile outcome and indeed would represent good value for money. However, this amount of behavioural change would not be detectable even in a fairly substantial survey of the general population.

In evaluation we therefore need to tap into “captive populations” (such as helpline callers) where they exist, and to manage potential bias through study design and analysis.

In any case, *Gavin*, with repeated showings, has undoubtedly caught the attention of the people of Scotland. Awareness of the advertisement in the adult general population runs consistently at around 90%, and I have referred to its centrality to people’s awareness of HEBS. In 1997 *Gavin* was voted favourite advertisement in a readers’ poll conducted by *The Scottish Sun* as part of the Scottish Advertising Awards. This is no mean feat, and its significance in evaluation terms should not be underestimated. It is evidence that health education advertising can have a wide appeal and become part of the fabric of the nation, more than holding its own with more expensive and less socially useful advertising.

The campaign and other health education efforts—in schools, through the workplace and health service, and in other settings—are of course but pieces in a jigsaw of factors affecting the nation’s levels of activity. Policies and action in areas such as community safety, transport, pollution control, urban and rural planning, and access to facilities are needed to make it more appealing and more feasible for people to build physical activity into their everyday lives at all stages and ages.

ANDREW TANNAHILL

*Chief Executive, Health Education Board for Scotland
Woodburn House, Canaan Lane
Edinburgh EH10 4SG, Scotland*

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Role of exercise counselling in health promotion

Despite the clear health benefits that can be attained through adopting a more active lifestyle, most adults in the United Kingdom as well as other industrial nations remain underactive. Faced with this epidemic, there is a growing need for physical activity interventions that can be widely disseminated to all segments of the population across the lifespan.

One promising avenue for physical activity counselling and support lies with the primary care doctor and other health care professionals. The strengths of incorporating physical activity advice and support as part of routine health care include the ability to reach a substantial portion of the population repeatedly over time, the consistency and continuity of message content and delivery, and the willingness among patients to act on their doctor’s advice.^{1,2} Despite these strengths, however, a number of barriers to physical activity counselling in primary care have been documented, including lack of time, reimbursement, and training in physical activity or behaviour change counselling.³ Although such barriers present continuing challenges to the health promotion and

health care fields, the potential public health impact that primary care settings can have on health behaviour change, including physical activity, merits continued investigation.

Although a relatively large body of research exists on advice and counselling by doctors for other health behaviours, such as smoking, relatively little systematic research has been conducted to date on physical activity promotion in primary care. The studies that have been undertaken have taken advantage of a growing body of knowledge, underscoring the utility of applying empirically supported behavioural strategies in facilitating physical activity change. Such behavioural strategies, derived primarily from social cognitive theory and its derivatives, include: identifying specific practical physical activity goals tailored to the patient’s needs and circumstances; structuring initial patient expectations so that they are realistic; identifying those benefits related to becoming more physically active that are most germane to the patient’s own health status; encouraging the patient to keep track of his or her own physical activity patterns through simple self

monitoring tools; and providing continual interest, encouragement, and support for physical activity. Some of these behavioural strategies have been used in studies in which primary care doctors have been trained to deliver brief advice and counselling on physical activity, with encouraging results in the short term.⁴⁻⁵ In one study, for example, a written goal oriented exercise prescription from general practitioners, in addition to verbal advice, was particularly effective in promoting increased physical activity over a six week period.⁶ More discrepant results obtained from longer term multiple risk factor programmes, however, suggest that more intensive interventions may be needed to obtain longer term effects in at least some segments of the population. Such interventions could include the use of health educators and professionals in addition to the doctor. Health educators and other allied health professionals can provide a level of advice and counselling beyond that which doctors, constrained by time and similar barriers, are typically able to deliver.⁷ One promising approach awaiting more extensive investigation involves using brief advice from the doctor as a means of setting the stage for physical activity change in conjunction with specific referral to other health care based or community based health educators or providers. In this way, the perceived credibility and authority of the doctor can be harnessed as a catalyst for change, while the very real time constraints facing many doctors are recognised.⁸ The challenge remains to structure the referral network effectively such that patients will successfully follow through with the referral. To maximise the potential benefits of this type of referral network, continuing communication between the doctor and referral source is essential.

In addition, the studies targeting primary care providers have focused almost exclusively on doctors involved in family practice and internal medicine. Yet, other primary care specialties, such as paediatrics and obstetrics-gynaecology, reach important segments of the population for whom physical activity information and messages are particularly relevant. Future research should target the full range of primary care practice.

While face to face instruction and counselling for physical activity have traditionally been the norm in most countries, a growing scientific literature has underscored the utility of mediated channels for delivering physical activity advice and information in an efficient, effective, and potentially less costly fashion. For instance, in the United States, at least 13 randomised controlled investigations have systematically evaluated the use of telephone based physical activity advice and support, either in conjunction with or independent of advice from the doctor.⁷⁻⁹⁻¹⁰ The telephone supervised physical activity approach has been

shown to be effective in both older and younger adult populations, women as well as men, cardiac patients, older family carers of relatives with dementia, and overweight patients. It has been found to be effective in promoting physical activity of various types—for example, endurance, strength, flexibility, general conditioning—intensities—for example, moderate intensity exercise, more vigorous exercise—and formats—for example, home based, group based, combinations of home based and group based exercise. Telephone and similar mediated approaches allow both the health professional and the patient a level of convenience and flexibility that is often diminished or lacking in group based physical activity regimens.

In summary, to reach the public health goals on physical activity in the United Kingdom, United States, Australia, and other countries continued efforts to involve primary care providers and other health professionals as active facilitators of the physical activity message are strongly indicated. Primary care advice in conjunction with referral to appropriate community organisations may help to facilitate the long term increases in physical activity participation that are critical for health promotion and disease prevention. Telephone and other mediated approaches to physical activity promotion provide a promising avenue for programme delivery, in primary care as well as other community settings.

ABBY C KING

Stanford University School of Medicine
Palo Alto
CA 94304-1583, USA

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Where is the pain coming from in tendinopathy? It may be biochemical, not only structural, in origin

Traditional dogma would have it that pain in tendinopathy arises through one of two mechanisms. Firstly, it may result from inflammation in "tendinitis". Secondly, it may be due to separation of collagen fibres in more severe forms of tendinopathy. The latter situation parallels the mechanism of pain with collagen separation after an acute grade I or II ligament injury (fig 1).

Despite the wide acceptance of these two classical models of pain production, a number of studies provide data

inconsistent with either theory. Consider first the inflammation mechanism. Histopathological examination of surgical specimens from patients with chronic tendon pain are devoid of inflammatory cells.¹ This applies to tissue from the Achilles, patellar, lateral elbow, medial elbow, and rotator cuff tendons. Furthermore, prostaglandin E2 (a marker of the inflammatory process) is no more abundant in patients with Achilles tendon pain than in normal controls.²