

'Weak evidence' to support exercise referrals

November 7 2011

Research commissioned by the NIHR Health Technology Assessment programme and carried out by research teams from the Peninsula College of Medicine and Dentistry (PCMD) and the Universities of Exeter (Sport and Health Sciences) and Brunel (Health Economics Research Group), has called into question the effectiveness of exercise referral schemes as they are delivered at present.

The study is published in the [British Medical Journal](#) on-line on Monday 7th November and in press on Friday 12th November.

The findings of the study indicate that there is 'weak evidence' to support exercise referral schemes as a means of increasing the physical activity and improving the [health outcomes](#) of sedentary individuals in the long run. The results of the study do not diminish the importance of physical activity promotion but highlight the need to continue to identify cost effective ways to change population prevalence.

There is little doubt that physical activity contributes to the prevention and management of a wide range of medical conditions, including [coronary heart disease](#), [type 2 diabetes](#), some cancers and [psychological disorders](#) such as depression. The national recommendation is that adults should accumulate at least 30 minutes' moderate [intensity exercise](#) on at least five days a week – but only one third of adults in the UK are active to this level.

Exercise referral schemes, where GPs or another member of Primary Care team are able to refer selected patients to exercise specialist often

at local gyms and other sports centres, have been part of the arsenal for the prevention and management of medical conditions since the early 1990s.

Few randomised control trials have specifically assessed the impact of exercise referral schemes. Those that have taken place have failed to investigate the health-related benefits (such as changes in blood pressure or depression) exclusively for people with pre-existing conditions such as those with high blood pressure, or depression and who may be most likely to benefit from a scheme.

The research was commissioned on the back of a 2006 review of brief physical activity intervention by the National Institute for Health and Clinical Excellence (NICE) that called for more controlled research into the effectiveness of exercise referral schemes.

The research team carried out a systematic review that identified eight randomised controlled trials on exercise referral schemes.

These studies showed weak evidence for short-term (i.e. up to 12-months' follow up) increases in physical activity and reductions in the levels of depression, in sedentary individuals after they had taken part in an exercise referral scheme compared to those who received simply advice. There was no demonstrable difference between taking part in an exercise referral scheme or other physical activity promotion intervention such as a walking programme. The review found no consistent evidence in favour of exercise referral schemes in terms of benefits such as physical fitness, psychological well-being, overall health-related quality of life, blood pressure, serum lipid levels, measures of obesity, glycaemic control of respiratory function.

Some studies included participants with pre-existing medical conditions (such as hypertension, or depression) but the effects of the exercise

referral scheme on related outcomes for sub-groups of participants with specific conditions was not reported.

The review supports previous NICE guidance that there is insufficient evidence to support the widespread adoption of exercise referral schemes. However, the research team has shown that there remains some uncertainties in this evidence base, in particular the potential impact of exercise referral schemes in sedentary populations with a pre-existing medical diagnosis, and therefore, further trials in such groups may be informative.

Dr. Toby Pavey, Associate Research Fellow in the Peninsula Technology Assessment Group at PCMD who coordinated the study, said: "Our study does not question the importance of [physical activity](#) for good health: what it does do is question the effectiveness of the exercise referral programme as it is delivered at present. It is clear that with increasing pressure on NHS budgets and changes to the way in which services are commissioned as part of current NHS reforms, more work needs to be done to establish how existing referral programmes may be made more effective and who should they be targeted towards."

This paper reflects part of a NIHR HTA commissioned review assessing the clinical and cost-effectiveness of exercise referral schemes, due to be published in the *HTA Journal* in December.

Provided by The Peninsula College of Medicine and Dentistry

Citation: 'Weak evidence' to support exercise referrals (2011, November 7) retrieved 27 April 2024 from <https://medicalxpress.com/news/2011-11-weak-evidence-referrals.html>

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