



Exercise counselling and use of exercise professionals by physicians: Findings from a scoping review

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Summary

This article summarizes the findings from a scoping review examining family physicians' approach to different forms of exercise/physical activity counselling and referral in their practice.

The goal was to provide interested individuals, such as exercise professionals and physicians, with a review of the current literature in this area.

Background

Regular physical activity can improve health and help prevent chronic diseases, such as arthritis, asthma, heart disease, cancer and diabetes.^{1,2,3} Promoting symptom management and active prevention of chronic disease is very effective when exercise is included.⁴ Physicians can play a significant role in increasing exercise levels of their patients through exercise counselling and referral.⁵ However less than 10% of total outpatient visits have included exercise counselling or education.⁶ The clinical setting suffers from a lack of physical activity promotion and prescription by physicians when compared to the prescription of pharmaceutical medications.^{7,8} To find out why physicians rarely counsel their patients on behaviours related to physical activity, we conducted a scoping review examining different forms of physical activity/exercise counselling and referrals. Our goal was to provide interested individuals, such as exercise professionals and physicians, with a review of physician-based exercise counselling findings from the literature.

Methods

The review was designed using Arksey and O'Malley's framework for conducting scoping reviews.⁹ Only English language studies were included in the search of the following four databases: SportDiscus, Medline (OVID), Web of Science and PubMed. The following terms were used: exercise prescription, health care, clinician exercise interventions, primary care, public health, physical activity, fitness, exercise medicine, chronic disease, inactivity, and economic analysis. The documents included in the scoping review (N=71) were reduced to 41 articles from peer-reviewed and grey literature between the years 1993 to 2012.

Findings

The articles were from various countries (Australia=2, Canada=6, Finland=1, Spain=2, Sweden=1, New Zealand=2, United Kingdom (UK)=13, and USA 13) and included several research designs (case study=1, cross-sectional=2, commentary=2, editorial reviews=8, general reviews=2, systematic reviews=4, observations=6, and RCT=5). The results were grouped into three loosely defined themes.

1) Could family medicine physicians influence physical activity rates of their patients through exercise counselling and verbal advice during routine visits?

- ◆ Physicians are considered prominent medical and health authorities, and therefore their advice is likely to be taken seriously by their patients.

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- ◆ Physicians who counsel physical activity use self-report questionnaires, accelerometers and metabolic measures of physical activity. Initially, positive results are seen, however at followup, behaviour changes generally are not sustained.
- ◆ New Zealand's written goal-oriented exercise prescription, The Green Prescription, was a useful tool for physicians in motivating their patients to increase physical activity.
- ◆ UK Exercise Referral Schemes have shown some impact on reducing sedentary behaviour in the short term. Results were unlikely to be sustained long enough to lead to lifetime health benefits. Increases in physical activity participation occurred in the following populations: slightly active adults, older adults and overweight adults (but not obese adults).

2) What barriers do physicians face to being advocates of physical activity and health promotion?

- ◆ Physicians do not have enough time during routine patient visits to cover exercise-based discussion on:
 - the patient's current physical activity level,
 - how to increase physical activity,
 - what exercises to do, and
 - when to be physically active or exercise.
- ◆ Exercise advice given by physicians is likely general guidelines, which are not individualized or modified for older patients or patients with multiple chronic conditions or acute medical issues.
- ◆ Physicians are isolated from exercise centres and facilities with no widespread established system connecting the physicians to exercise professionals.
- ◆ Extra levels of attention and individualization may be required to support patients who are sedentary and living with a chronic condition to move towards being more physically active.
- ◆ Generally, physicians are not trained in exercise prescription.
- ◆ Some physicians simply do not recognize physical inactivity as an issue.

3) Can exercise counselling and referral options within primary care be deemed cost-effective?

- ◆ Costs associated with the Green Prescription program were found to be less than one-tenth of the average cost per quality-adjusted life year for accepted interventions in health care.
- ◆ The health initiative, Exercise is Medicine® Canada, or simple exercise counselling during each routine visit to the physician, also can be considered cost-effective if it can make significant impacts on behaviours associated with physical activity.

Summary and Practical Implications

Overall, these results identify the barriers that physicians experience when counselling patients on exercise. Apart from the obvious constraints, e.g., not enough time, significant problems exist such as physicians' isolation from physical activity agencies, their lack of confidence in the quality of the services, and their own ability to counsel on physical activity and exercise. Educating physicians on the exercise professional's scope of practice is necessary. A referral system for physicians to prescribe exercise as a preventive therapy would support greater use of exercise professionals to improve the health and quality of life for patients.

Key Terms

Scoping reviews examine and describe the available literature, regardless of study design, and result in the ability to rapidly map out what is currently known about a particular topic. They provide specialists with relevant and quantified results concerning the knowledge available.¹⁰

Exercise specialists is a term used by [Alberta Health Services](#). They are exercise professionals whose scope of practice include working with cardiovascular, metabolic, neuromuscular, and pulmonary diseases.¹¹ Their education includes a Bachelor of Science in Kinesiology (or Exercise Science equivalent), and a Certified Exercise Physiologist (CEP) certification from the Canadian Society for Exercise Physiology (CSEP), or an equivalent certification from the American College of Sports Medicine (ACSM).

Exercise is Medicine® Canada provides national leadership in promoting physical activity as a chronic disease prevention and management strategy to improve health.¹² The founding partners include ACSM and CSEP.

About the Authors



Lisa Campkin, MSc (candidate), completed her undergraduate degree from the Faculty of Kinesiology at the University of Calgary. She is currently conducting research with the Doyle-Baker Lab and working in the School of Performing Arts supporting qualitative dance research projects. This summer, she will defend her masters thesis titled: Exploring Physicians' Perspectives of Exercise Specialists in Primary Care Networks.



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Disclaimer

The views and opinions expressed herein are those of the author/s and do not necessarily reflect the views and opinions of the Alberta Centre for Active Living or the WellSpring Advisory Committee.

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