

Collaborative team-based health promotion in a primary care setting

The MOVE program

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Abstract

Objective To assess a primary care-based, physician-led physical activity program for primary care patients.

Design Initial assessment of a physical activity program for feasibility, patient satisfaction, and effectiveness.

Setting A primary care network in Edmonton, Alta.

Participants Patients from the primary care network.

Intervention The MOVE program is a primary care-based, physician-led physical activity program for primary care patients, collaboratively offered by an FP and a kinesiologist.

Main outcome measures Six-minute walk test and patient survey results.

Results Patients reported considerable benefits to participating in the MOVE program. Improvements in 6-minute walk test results were observed over 2 months (587 vs 653 m, $P < .001$).

EDITOR'S KEY POINTS

- Good evidence supports the many benefits of lifestyle interventions, including physical activity, but such interventions are not widely implemented in primary care.
- The MOVE program is a free, weekly exercise program that provides the opportunity for patients to be physically active alongside an FP and a kinesiologist. The exercise program combines walking, strength training, and other physical activities and evidence-based exercises, such as high-intensity interval training, in the natural surroundings of a local community park.
- Participants reported being satisfied with the program and its online resources, and also appreciated the opportunity for socializing with other participants and interacting with nature and the outdoors, the ability to participate at their own personal pace, and the availability of experts. Results of 6-minute walk tests improved significantly over 2 months ($P < .001$).

This article has been peer reviewed.
Can Fam Physician 2017;63:e123-7

Conclusion Being involved in innovative primary care-based health promotion activities is a way for FPs to achieve success in changing patients' behaviour.

Action concertée de soignants de première ligne pour promouvoir de saines habitudes de vie

Le programme MOVE

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Résumé

Objectif Évaluer un programme d'activité physique à l'intention des clients d'une clinique de soins primaires, effectué sous la direction d'un médecin.

Type d'étude Une première évaluation de la faisabilité du programme d'exercices, de son efficacité et de la satisfaction des patients.

Contexte Un réseau de soins de première ligne à Edmonton, en Alberta.

Participants Des patients de ce réseau de soins de première ligne.

Intervention Le programme *Move* est un programme d'activité physique à l'intention des patients d'une clinique de santé primaire, sous la direction d'un MF et d'un kinésiologue.

Principaux paramètres à l'étude Les résultats d'une épreuve de marche de 6 minutes et d'un sondage auprès des participants.

Résultats Les patients ont déclaré qu'ils avaient beaucoup bénéficié de leur participation au programme *MOVE*. On a observé une amélioration de la distance parcourue à l'épreuve de marche après 2 mois de participation (587m vs 653 m, $P < .001$).

Conclusion Le fait de s'engager dans de projets innovateurs qui font la promotion de saines habitudes de vie au sein d'une clinique de soins primaires est une façon pour le MF d'avoir du succès lorsqu'il veut modifier le comportement de ses patients.

POINTS DE REPÈRE DU RÉDACTEUR

- De nombreuses données indiquent que certaines interventions portant sur le mode de vie, comme la promotion de l'activité physique, peuvent avoir de nombreux avantages; toutefois, ce type d'intervention n'est pas régulièrement utilisé dans les cliniques de soins primaires.

- Le programme *MOVE* est un programme gratuit qui offre aux patients une occasion de faire de l'activité à chaque semaine en compagnie d'un MF et d'un kinésiologue. Le programme d'exercices comprend de la marche, de la musculation ainsi que d'autres types d'activité physique et d'exercices fondés sur des données probantes, tels qu'un entraînement par intervalles, et ce, dans le site naturel d'un parc communautaire avoisinant.

- Les participants se sont dits satisfaits du programme et des ressources disponibles sur le WEB; ils ont également apprécié cette occasion de socialiser avec les autres participants, et d'interagir avec la nature et le plein air, de pouvoir s'entraîner à leur propre rythme et de disposer d'experts du domaine. Au bout de deux mois, une amélioration significative des résultats à une épreuve de marche de 6 minutes a été observée ($P < .001$).

Cet article a fait l'objet d'une révision par des pairs.
Can Fam Physician 2017;63:e123-7

Family physicians provide care throughout patients' lifetimes.¹ They are typically the first and continuing point of contact for access to health services, support, and care, and they often deliver preventive care based on the effects of lifestyle choices on the health of their patients.¹ An increasing number of people are developing preventable chronic conditions like hypertension, cardiovascular disease, and diabetes.² These preventable chronic diseases can be managed through diet and exercise interventions.³ Despite evidence showing that lifestyle interventions could substantially reduce the costs and complications of these medical conditions,⁴⁻⁷ the application of these results in primary care has been minimal.² In a recent national survey in primary care, less than half of FPs reported discussing obesity and physical activity with their patients during periodic health examinations.² Reasons for the poor implementation of lifestyle interventions in primary care include lack of time, lack of resources, and limited training.⁸⁻¹¹

Family physicians and primary care staff who work in Patient's Medical Home practices are looking for methods that can support their patients in achieving the recommended 150 minutes of moderate to vigorous physical activity per week. At one primary care network (PCN) in Edmonton, Alta, one FP (D.K.) started to think that perhaps there could be an effective way to engage with patients outside the clinic to encourage them to exercise.¹² Because FPs are indeed a trusted source of health advice, could FPs not only tell patients to get physically active but also show patients how to get physically active by meeting them in their communities to walk alongside them?

This idea that the powerful influence of an FP on patients' behaviour could be combined into a primary care program encouraging activity among patients was tested in Edmonton as part of the interdisciplinary team programming at the Edmonton Oliver PCN. The Edmonton Oliver PCN was supportive of this idea and helped develop and implement an innovative physician-led, interdisciplinary team-based exercise program called MOVE (www.moveyeg.ca). Through primary care reform, team-based care has become more common, with FPs working alongside dietitians, kinesiologists, and other providers to support patient care.¹³ In Alberta, these team-based networks take the form of PCNs; in other parts of the country they form family health teams.^{14,15} Such team-based care creates the opportunity for programs like MOVE.

The MOVE program began in 2013 with a group of 5 patients. It is a free, weekly exercise program that provides the opportunity for patients to be physically active alongside an FP (D.K.) and a kinesiologist (M.K.). The exercise program combines walking, strength training, and other physical activities and evidence-based exercises, such as high-intensity interval training, in the natural surroundings

of a local community park. The program takes advantage of trails, hills, stairs, picnic tables, and park benches to teach people how to exercise. Everyone is welcome to attend, and the program is targeted to beginner and intermediate fitness levels. The patient just needs running shoes, a water bottle, and weather-appropriate clothing.

METHODS

Initial evaluation of the MOVE program focused on feasibility, participant satisfaction, and effectiveness at increasing physical fitness. The evaluation was conducted over a 3-month period in the fall of 2014 during the program's second year. The timing of the evaluation took advantage of an influx of new participants in MOVE as a result of media attention. Initially, the purpose was to determine whether people would be interested in such a program and if the staffing of the program would be acceptable to the PCN.

The program targeted those individuals who did not feel comfortable going to a gym or starting an exercise program on their own. Older adults were invited to come to the program by PCN staff. Formal fitness testing was not conducted, as the initial program only included walking, some stairs, and body-movement exercises (tailored to individual participants) and was therefore viewed to be safe for all people. It was essentially a drop-in program, as the participants did not need to attend every week. The physician and kinesiologist both attended the sessions. On most days participants were split into groups to tailor the activity to participants' self-determined fitness levels.

After 2 months in the program, all MOVE participants were sent a short electronic survey by e-mail. The survey explored participant satisfaction with the program, perceived benefits to participants, and patient suggestions for improving the program. Satisfaction was evaluated on a 5-point Likert scale (excellent, very good, good, fair, and poor). The MOVE participants were sent 2 reminders to encourage completion of the survey. In addition, we conducted 6-minute walk tests during 2 MOVE sessions 2 months apart to assess changes in physical fitness.¹⁶

RESULTS

The MOVE program has 122 people on its distribution list, with about 20 to 30 people attending each week. Eighty percent of MOVE participants are female. Participants range in age from 25 to 69, with a median age of 57.5 years. Initially, the program involved walking 1 to 2 km in a local park. As part of the evaluation period, the sample population attended, on average, 8 sessions, each 90 minutes in total length, which included a walk of about 2 km followed by body-weight exercises lasting 30 of the 90 minutes. Some of the participants might have done

additional exercise outside of the weekly MOVE session, but this was not evaluated. The whole group has been able to progress to hiking longer and harder as the weeks continue, averaging about 5 km for the fitter participants. The program has been expanded to offer sessions 4 times a week, each at a different park location in the city. The PCN has been supportive of MOVE and its feasibility, and has been responsible for the expansion of the program.

Table 1 provides the preliminary results from the evaluation of the MOVE program. Owing to the drop-in nature of the program, we were able to complete the baseline and 2-month follow-up 6-minute walk test for a total of 20 participants. Results demonstrate significant improvement over 2 months of the program, with the average number of metres walked increasing by more than 10% from baseline ($P<.001$). A total of 21 participants completed the survey; 76% reported satisfaction (good, very good, or excellent) with the walking and exercises offered through the MOVE program. In addition, 82% of respondents reported satisfaction with the MOVE program's online resources. Additional benefits of the MOVE program reported by participants include socialization with other participants, interaction with nature and the outdoors, the ability to participate at one's own personal pace, and the availability of experts to help and make suggestions for improvement. Often, patients are surprised at what they can do and are inspired to get more exercise at other times during the week in their own neighbourhoods. Of the participants who were not satisfied with the program (rating it fair or poor), one reason included that the program was too easy.

Table 1. Evaluation of MOVE program in a sample of participants

FACTOR	SAMPLE OF PARTICIPANTS (N = 20)
Female, n (%)	16 (80)
Age range (median), y	25-69 (57.5)
6-minute walk distance, m	
• Baseline	587
• 2 mo	653*

*Significantly different from baseline ($P<.001$).

DISCUSSION

One FP's innovative idea to meet patients out in the community and support their physical activity goals by exercising alongside them was the catalyst for development of the MOVE program. The preliminary evaluation of the MOVE program has demonstrated program feasibility, participant satisfaction, and initial improvement in physical abilities. There are many potential advantages to this clinic-in-the-park idea. Patients spend less time sitting and achieve daily exercise goals. Parking is free

and easily accessible. In addition, there is evidence that time in nature (eg, sounds of a creek or river) are good for your health.^{17,18} Most important, the distinguishing feature of MOVE that sets it apart from traditional exercise programs for patients is physician involvement.

A recent systematic review by March et al compiled available literature on the topic of community health promotion interventions for patients in primary care.¹⁹ The exercise programs outlined in the review involved community-based exercise referral programs run by exercise specialists or volunteers.¹⁹ The MOVE program is a unique primary care program that offers an exercise program led by an FP alongside a kinesiologist, in which providers and patients actively participate in physical activity together out in the community. While similar programs have been evaluated in Spain and England by Gusi and colleagues and Munro and colleagues, they do not combine physician involvement with the delivery of the exercise program.^{20,21} In the trial by Gusi et al, general practitioners referred patients to a walking program that was led by qualified exercise leaders.²⁰ Munro et al evaluated an aerobic-style exercise program delivered twice a week by qualified instructors to individuals older than 65 years of age.²¹ The MOVE program is available to all age groups, and an FP and a kinesiologist deliver the program to maximize the effects and patient satisfaction. The presence of an FP enables patients to exercise in a safe environment with readily available access to a health professional to address any concerns and provide personalized exercise advice.


Limitations

The program is based within a single PCN (with interdisciplinary staff including nurses, dietitians, and kinesiologists paid by the PCN). The physician was not paid by the PCN but does receive a salary from the university for non-clinical work including teaching, research, and administration. Although not feasible in a single-physician clinic, the program is feasible within larger group practices, including within the Patient's Medical Home model. Physician remuneration is a key issue for the expansion of the program, but the local MOVE program has recruited several physicians to be involved, and it is therefore not taking too much time away from any one physician's clinic. Many FPs might be interested in promoting health through their volunteer commitments, and there might be an opportunity to achieve this goal. Recent changes to the program have included adding other members of the health care team, including dietitians who provide nutritional information while walking. Future research is planned to evaluate the effectiveness of the program and to examine whether the physician needs to be present for the entire program or whether physician off-site support is just as effective.

In addition, the numbers included in this evaluation were small and, owing to the drop-in nature of the program,

those participants who were available for baseline and follow-up measures might have been more dedicated than participants for whom both measures were not available. However, the purpose of the project was an initial assessment of feasibility and participant satisfaction, and the evidence supports both. It should also be recognized that this is an evaluation of a single program based in one PCN in one Canadian city. The results might not be generalizable to primary care settings more broadly, but this initial evaluation of MOVE suggests the program has promise.

Conclusion

It is important to empower patients to make healthy choices and reduce barriers to being physically active, as promoting an improved lifestyle is good medicine. There is currently no literature on other Canadian primary care-based fitness programs that offer both physician and kinesiologist expertise. Patients who are unsure about starting to exercise, or those with medical conditions that invoke fear of going to a gym, feel comfortable participating in MOVE. This community-based program encourages participants to be active outside, without needing to go to a gym or buy any exercise equipment. The program has demonstrated feasibility and effectiveness in its initial evaluation. Other jurisdictions should be encouraged to try replicating the program in their settings. 

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Contributors

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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References

- McIsaac WJ, Fuller-Thomson E, Talbot Y. Does having regular care by a family physician improve preventive care? *Can Fam Physician* 2001;47:70-6.
- Katz A, Lambert-Lanning A, Miller A, Kaminsky B, Enns J. Delivery of preventive care. The national Canadian Family Physician Cancer and Chronic Disease Prevention Survey. *Can Fam Physician* 2012;58:e62-9. Available from: www.cfp.ca/content/58/1/e62.full.pdf+html. Accessed 2017 Jan 12.
- Yamaoka K, Tango T. Effects of lifestyle modification on metabolic syndrome: a systematic review and meta-analysis. *BMC Med* 2012;10:138.
- Gouveri ET, Tzavara C, Drakopanagiotakis F, Tsaousoglou M, Marakomichelakis GE, Tountas Y, et al. Mediterranean diet and metabolic syndrome in an urban population: the Athens Study. *Nutr Clin Pract* 2011;26(5):598-606.
- Kastorini CM, Milionis HJ, Esposito K, Giugliano D, Goudevenos JA, Panagiotakos DB. The effect of Mediterranean diet on metabolic syndrome and its components: a meta-analysis of 50 studies and 534,906 individuals. *J Am Coll Cardiol* 2011;57(11):1299-313.
- Engström G, Hedblad B, Janzon L. Hypertensive men who exercise regularly have lower rate of cardiovascular mortality. *J Hypertens* 1999;17(6):737-42.
- Rubenfire M, Mollo L, Krishnan S, Finkel S, Weintraub M, Gracik T, et al. The metabolic fitness program: lifestyle modification for the metabolic syndrome using the resources of cardiac rehabilitation. *J Cardiopulm Rehabil Prev* 2011;31(5):282-9.
- Centre for Obesity Management and Prevention Research Excellence in Primary Health Care [website]. Australia: Australian Primary Care Research Institute; 2012. Available from: <http://compare-phc.unsw.edu.au/>. Accessed 2017 Jan 12.
- Lau DC, Douketis JD, Morrison KM, Hramiak IM, Sharma AM, Ur E. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children [summary]. *CMAJ* 2007;176(8):S1-13.
- Petrella RJ, Lattanzio CN, Overend TJ. Physical activity counseling and prescription among Canadian primary care physicians. *Arch Intern Med* 2007;167(16):1774-81.
- Petrella RJ, Koval JJ, Cunningham DA, Paterson DH. Can primary care doctors prescribe exercise to improve fitness? The Step Test Exercise Prescription (STEP) project. *Am J Prev Med* 2003;24(4):316-22.
- Klein D, Crawford K, Singal M, Pittman C. A crazy little idea. *Can Fam Physician* 2013;59:704.
- Alberta Medical Association Primary Care Alliance Board. *PCN Evolution. Vision and framework*. Edmonton, AB: Alberta Medical Association Primary Care Alliance Board; 2013.
- PCNs in Alberta* [website]. Edmonton, AB: Alberta Primary Care Networks; 2014. Available from: www.albertapci.ca/AboutPCNs/PCNsInAlberta/Pages/default.aspx. Accessed 2015 Aug 13.
- Family health teams* [website]. Toronto, ON: Ministry of Health and Long-Term Care; 2014. Available from: www.health.gov.on.ca/en/pro/programs/fht. Accessed 2015 Aug 13.
- Crapo RO, Casaburi R, Coates AL, Enright PL, MacIntyre NR, McKay RT, et al. ATS statement: guidelines for the six-minute walk test. *Am J Respir Crit Care Med* 2002;166(1):111-7.
- Lee AC, Maheswaran R. The health benefits of urban green spaces: a review of the evidence. *J Public Health (Oxf)* 2011;33(2):212-22. Epub 2010 Sep 10.
- Mowen A, Orsega-Smith E, Payne L, Ainsworth B, Godbey G. The role of park proximity and social support in shaping park visitation, physical activity, and perceived health among older adults. *J Phys Act Health* 2007;4(2):167-79.
- March S, Torres E, Ramos M, Ripoll J, García A, Bullete O, et al. Adult community health-promoting interventions in primary health care: a systematic review. *Prev Med* 2015;76(Suppl):S94-104. Epub 2015 Jan 24.
- Gusi N, Reyes MC, Gonzalez-Guerrero J, Herrera E, Garcia JM. Cost-utility of a walking programme for moderately depressed, obese, or overweight elderly women in primary care: a randomised controlled trial. *BMC Public Health* 2008;8:231-40.
- Munro J, Brazier J, Davey R, Nicholl J. Physical activity for the over-65s: could it be a cost-effective exercise for the NHS? *J Public Health Med* 1997;19(4):397-402.

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