

Green prescriptions: attitudes and perceptions of general practitioners towards prescribing exercise

BOYD A SWINBURN

LISA G WALTER

BRUCE ARROLL

MURRAY W TILYARD

DAVID G RUSSELL

SUMMARY

Background. This qualitative study was part of a broader randomized controlled trial which showed that written exercise advice (green prescription) from a general practitioner (GP) increased physical activity levels among sedentary patients more than verbal advice alone over a 6-week period.

Aim. To assess the attitudes and perceptions of GPs towards the practice of writing green prescriptions.

Method. Participating GPs ($n = 25$) discussed attitudes and perceptions towards green prescriptions through structured focus groups within 2 weeks of the end of recruitment for the main study.

Results. The GPs felt comfortable discussing and prescribing exercise with and to patients. They preferred giving green prescriptions to giving verbal advice alone, and felt they were a valuable tool to formalize and document mutually agreed exercise goals. Time constraints were identified as a major barrier to the widespread implementation of green prescriptions. Appropriate training, resource materials, and patient follow-up mechanisms were identified as important elements for successful implementation of the strategy.

Conclusion. Overall, the GPs were very positive about the green prescription concept, believing it to be beneficial for patients and achievable within general practice.

Keywords: prescribing, exercise, GP attitudes.

Introduction

THE general practice setting seems well suited to motivating patients to increase physical activity, and there is widespread acceptance among general practitioners (GPs) that regular exercise is conducive to good health.^{1,2} Some exercise promotion schemes have been piloted in general practice;³⁻⁶ however, these are still sporadic in nature and in need of further research.⁷

B A Swinburn, MD, FRACP, senior research fellow; and L G Walter, BSc, research assistant, Department of Community Health, University of Auckland. B Arroll, MBChB, PhD, FAFPHM, senior lecturer, Department of General Practice, University of Auckland. M W Tilyard, MD, MRNZCGP, Elaine Gurr professor of general practice, University of Otago; D G Russell, PhD, FNZFSM, director, Life in New Zealand Research Unit, University of Otago, New Zealand.

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Overall, there is little evidence of physical activity promotion by GPs.⁸⁻¹¹ There are a number of barriers to giving exercise advice, the most dominant being a lack of time.¹²⁻¹⁴ Other barriers include a lack of confidence in counselling patients on exercise,^{1,4,8,14} a lack of reimbursement,⁸ insufficient knowledge about the benefits of physical activity,¹⁵ a lack of standard formats for assessing and prescribing exercise,⁸ and a perceived lack of patient motivation.¹⁶

This study was part of a randomized controlled trial of the effects of written exercise advice (green prescription) versus verbal advice alone among sedentary patients.¹⁷ Overall, the number of people doing any recreational activity increased from 54% to 81% after six weeks, with an average increase in duration of 78 minutes per week. The green prescription group did significantly better than the verbal advice group. Assessment and prescribing exercise took approximately five minutes of the GP's time, and in 79% of cases walking was prescribed.

This paper describes the qualitative research carried out with participating GPs to assess the attitudes and perceptions of the GPs towards using the green prescription, and the feasibility of incorporating it into everyday practice.

Method

Thirty-seven GPs from two major cities in New Zealand participated in the Green Prescription Study.¹⁷ In Auckland, 10 out of 11 invited GPs participated (approximately 800 GPs in Auckland), and in Dunedin, all GPs (110) were invited, 27 of whom participated. All GPs attended a training session before the trial and were given information about the benefits of exercise and how to prescribe it, an exercise assessment sheet, and the green prescription pad. Within 2 weeks of the completion of recruiting, all participating GPs were invited to attend a focus group for this qualitative part of the study to assess their experience and attitudes to prescribing exercise, in particular the green prescriptions. The GPs were reimbursed for the training session, for recruiting patients, and for focus group participation.

An experienced, independent facilitator conducted the focus groups and ensured that the prepared topics were covered while allowing the conversation to flow naturally. GPs were encouraged to voice their opinions and feelings throughout the sessions. Each focus group lasted 90-120 min. Topics covered exercise assessment, goal negotiation, the prescribing process, the effectiveness of the resources and training provided, the perceived value of the green prescription, and how the GPs visualized its use in their future practice.

The interviews were recorded and transcribed verbatim. Transcripts were analysed by topic into a series of themes, and within those themes statements were coded and developed into a number of insights and opinion trends.^{18,19}

Results

Participants

One focus group was held in Auckland ($n = 6$) and two in Dunedin ($n = 7$, $n = 12$). These GPs had recruited an average of

15 patients each for the trial (range 1–39), which was similar to the GPs who were unable to attend ($n = 14$, range 4–46).

Quantifying and prescribing exercise

General practitioners had little difficulty discussing exercise with their patients, and found it was a natural thing to do: 'It's heartland GP stuff.' It could often be related to a patient's medical condition, and the majority of patients 'responded very positively' and were 'very keen' to discuss exercise.

The activity questionnaires were valuable for quantifying the type and amount of exercise a person was doing, but assessing intensity of exercise was more difficult, especially in sedentary patients: 'Those that didn't have any participation in any activity were very poor in estimating time and intensity and duration.'

Overall, the level of discussion required was felt to be within the 'comfort zone' of GPs and patients, and the expectations of both parties were not high: 'I'm not saying go and join a gym, or do this or that, I am just saying exactly that, do a bit more.'

The GPs felt comfortable with writing an exercise prescription and 'felt that it was a natural conclusion to actually give them something'. The resource materials and training sessions provided were considered valuable. Knowing the benefits and risks of exercise increased the confidence of the GPs to discuss and prescribe appropriate physical activity goals for their patients. Even setting goals for modest amounts of exercise was seen to be beneficial because it was achievable and it was a step in the direction towards a healthier lifestyle:

Some of it was actually just encouraging them to exercise. If you couldn't get the ideal, at least get them off their backsides.

I took the whole aim of the exercise, not as trying to get a therapeutic level of exercise yet, but to get something started.

Its pointless writing a prescription for something you know that they are not going to do.

The process of involving the patient was considered critical to the chances of success. The goal-setting format of the green prescription was also viewed as a positive way to prescribe physical activity because it involved negotiation with patients, gave them actual 'quantums' to work towards, and served as a contract between the GP and patient:

The fact that they were being consulted had to be successful.

I think it encouraged me more to really talk with them as to what they felt was appropriate for them rather than me giving them guidelines.

Without an actual goal they don't know if they are doing what they agreed to do.

Time taken

The time needed to discuss and prescribe exercise was considered the main barrier to the wider use of green prescriptions. It tended to put GPs behind schedule, so they generally chose patients for such discussions during less busy periods. However, they found that knowing the patients and being practised at discussing the topic were important factors in limiting the time taken. Patients seen for routine follow-up, such as for hypertension, were considered the easiest group to target for green prescriptions.

Perceived value of green prescriptions

The GPs felt that writing down the goals added weight to their verbal advice, and the green prescription was seen as a positive and concrete conclusion: 'a very high note to end the consultation on'. It was even expected by some patients who could 'feel cheated' if they did not receive a piece of paper from their GP.

While there was some reticence to fully accept the green prescription concept before the results of the trial were known, there was a keenness to adopt the concept because they felt intrinsically that it was simple, worthy, and a natural extension of what they do anyway. Sub-groups of these patients, such as those with heart disease or diabetes, were seen as the highest priority for a green prescription because they would gain the greatest benefit from increased physical activity.

It was suggested that the value of the exercise prescription concept would be enhanced with appropriate follow-up procedures. Examples included phone calls or combining the follow-up with other regular check-ups, such as those for hypertension. The practice nurse was seen as a central figure in this regard. The GPs felt that their efforts would be more effective if they were supported by wider measures such as national media campaigns promoting physical activity.

Discussion

Overall, GPs felt very positive towards the concept of the green prescription; it added weight to their verbal advice and was a concrete reminder for the patient. They felt comfortable with introducing and discussing exercise with patients, and viewed the green prescription as an appropriate method to formalize and document the mutually agreed goals. Wider implementation of the green prescription concept would be likely to have GP support, although some barriers were identified.

As with other studies,¹⁶ it was evident that the training sessions and accompanying resources increased the GPs' confidence to prescribe exercise. The eventual advice in about 80% of cases was for walking,¹⁷ and while that may not require a lot of skill to prescribe, the likely value of the training sessions was to re-expose the GPs to the health benefits of mild to moderate intensity physical activity, reassure them about the safety of such exercise, and familiarize them with the tools to prescribe it.

The time pressure of a busy general practice was seen as a major barrier to the wider implementation of green prescriptions. The five minutes it took on average to quantify, discuss, and prescribe exercise for each patient¹⁷ included the additional form filling required for the study. With practice, and the provision of standard exercise assessment and prescription formats, the time taken could be reduced;^{8,13} however, it will always remain a substantial proportion of a normal consultation. Evidence of effectiveness from well-conducted studies and remuneration for the time involved would be major motivations for GPs to incorporate green prescribing into everyday general practice.²⁰ Remuneration to GPs in this study reduced the financial barriers to their use of the green prescription, although such remuneration was not available outside the scope of the study.

Longer-term follow-up processes were not incorporated into the Green Prescription Study, but the GPs in the focus groups believed that several options were possible and that this should not pose a significant barrier to implementation. As in other studies,²¹ the GPs tended to select patients who had medical conditions for exercise advice, and they were often well known to the GP, were seen on a regular basis, and incorporated into the GP's follow-up systems.

While the paradigm for the exercise advice (a prescription) was essentially an 'authoritarian' one, the goal-setting nature of the green prescription meant that the GPs listened to the patients' needs and suggestions, and used more of a negotiation approach. This mutual participation of doctor and patient is an important prerequisite for effective health promotion in general practice.²²

The GPs who attended the focus groups were a mixture of enthusiastic and less enthusiastic recruiters, and probably not

very different from the participating GPs who were not able to attend the focus groups. Overall, however, the GPs involved in the trial were likely to be a more motivated and innovative group than their peers who had been invited to participate in the original study but declined, or were unable to participate. In Dunedin, all GPs were invited to participate in the trial and one-quarter ended up doing so. This is a sizeable proportion of 'supporters' for the concept from which to move to the next stage of dissemination. The positive findings from the original trial and the current collaborative work on the green prescription project by the Hillary Commission for Sport, Fitness and Leisure, The National Heart Foundation, GP organizations, and health funders should also help to overcome remaining barriers and encourage other GPs to adopt the green prescription strategy.

Key points

- General practitioners were comfortable introducing and discussing exercise with their patients
- The GPs preferred giving written exercise goals (green prescriptions) rather than giving verbal advice alone
- Although the GPs supported the concept and widespread use of exercise prescriptions, time was identified as a major barrier

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Address for correspondence

Dr B Swinburn, School of Medicine, University of Auckland, Private Bag 92019, Auckland, New Zealand.