

Physical activity promotion in general practice

Patient attitudes

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BACKGROUND

Long term adherence to primary care physical activity intervention is poor. This study explored attitudes and subjective experiences of those who received such an intervention.

METHODS

Nested qualitative study within mixed methods approach, involving 15 sedentary adults from urban and rural general practices in New Zealand. Semistructured telephone interviews were conducted, transcribed, and analysed using an inductive approach to identify themes.

RESULTS

Four themes emerged including: tailoring of advice given; barriers to physical activity such as weather, physical environment, time, health and psychological limitations; internal motivators such as immediate or long term psychological, health or spiritual benefits, commitment, and guilt; and the role of significant others such as health and exercise professionals in initiating advice and continuing support, social interaction and commitment or contracts made to others.

DISCUSSION

This study highlights the need for a personalised approach, continued structured external support and the need to focus on barriers and facilitators.

Substantial evidence exists for the health benefit of physical activity.¹ Interventions delivered in primary health care have been assessed by randomised controlled trials (RCTs) and have found short term or small average increases in physical activity or fitness levels.²⁻⁴ To improve adherence, methods other than RCTs are needed to better understand determinants of exercise behaviour change.⁵⁻⁶ Qualitative enquiry might help us identify factors involved in motivating individuals to exercise and to continue exercising.

In New Zealand, a mixed methods approach assessed the Green Prescription physical activity intervention. A nested qualitative study was undertaken alongside a cluster RCT between 2000 and 2003 in the Waikato region. The trial assessed effectiveness of the Green Prescription among 878 sedentary patients aged 40–80 years from 42 general practices.⁷ The intervention involved screening for physical activity level, identification of 'stage of change' of intention to exercise using the transtheoretical model,⁸ and an estimated

7–13 minutes of tailored physical activity advice given by the general practitioner or practice nurse. The advice was also written on a 'green prescription', given to the patient and faxed to exercise specialists at local sports foundations, who continued telephone support monthly for 3 months. At 12 months the intervention group increased their physical activity significantly more than the control group, but only 10% more in the intervention than the control group reached the exercise targets of at least 2.5 hours per week.

Methods

Fifteen patients from the intervention arm of the Green Prescription trial participated after the completion of the trial.⁷ A purposive sampling frame was used based on six characteristics (*Table 1*). All participants had been sedentary at the start of the trial and were recruited by physical activity screening in waiting rooms of a range of urban and rural general practices. Some had increased their activity over the

duration of the trial while others had not. Individual semistructured telephone interviews were conducted and audiotaped with participants' consent. Transcriptions were coded using content analysis and themes identified by consensus between the three authors.

The Waikato Ethics Committee approved the study.

Results

The four emergent themes are discussed below and presented in *Table 2*.

Tailoring

If the advice was delivered discretely, sensitively and was individually tailored, it was more acceptable to patients.

'The fact that it was a personal approach and it was so nonjudgmental... There's no way I'm going to be treated like an idiot... and their sensible handling of what was obviously a sensitive issue for me was really the thing that got me and held me.'

Margaret, 43 years, rural European

Individually tailoring the exercise program was important, and prescribers needed to align activity plans with realistic patient expectations and capabilities. Some noted being asked to do things that were beyond their capacity due to co-existing conditions and pain. It also appeared that personal expectations of what was achievable needed to match actual capability, not only in terms of physical ability, but also what was socially and psychologically acceptable.

'I've never been to a gym in my life... I felt a little bit inadequate, how was I going to come out with my spindly looking arms... when other people you know are around.'

Gavin, 57 years, urban European

The importance of tailoring advice according to the stage of change was sometimes evident from replies. Many had contemplated increasing physical activity, but the program helped initiate it and the continued telephone support helped maintain it. Even those in the precontemplative stage could progress to the contemplative stage with the intervention.

'It wasn't until I got onto the program that I really sat down and had a think about it.'

Terry, 64 years, urban Maori

Barriers

Participants identified several barriers to physical activity, some of which were beyond the individual's control such as the lack of footpaths in rural areas or the weather.

'Put it off tomorrow, all the usual ones. It's too cold, it's too wet.'

Kevin, 71 years, rural European

Barriers relating to health conditions that prevented participation were also identified,

including recent stroke, operation and knee pain. Lack of time, motivation or self discipline, low self esteem and poor attitude toward activity were described.

'No barriers except my own mental state... can't be bothered today, I'm not going to.'

Margaret

Internal motivators

Participants identified aspects they found

Table 1. Purposive sampling frame and interviewee characteristics

Characteristic	Description	Number (%)
Gender	Male	6 (40)
	Female	9 (60)
Age* (range 43–78 years)	40–49 years	3 (20)
	50–59 years	6 (40)
	60–69 years	3 (20)
	70–79 years	3 (20)
Ethnicity	European	11 (73)
	Maori	4 (27)
Rurality	Rural	5 (33)
	Semirural	3 (20)
	Urban	7 (47)
Size of general practice	1 GP	5 (33)
	2–3 GPs	5 (33)
	4 or more GPs	5 (33)
Adherence to exercise advice (at 12 months)	Some increase	10 (67)
	No increase	5 (33)

* The largest group of participants in the trial were aged 50–59 years

Table 2. Themes identified from interviews with participants regarding a primary care physical activity promotion program

Theme	Components
Tailoring advice	Personalised approach (with sensitivity) Advising physically, psychologically and socially acceptable activities
Barriers	Physical environment (eg. weather, facilities) Physical ability/health conditions Psychological (eg. self discipline, self esteem)
Internal motivators	Immediate benefits Fear of illness/loss of function Knowledge of health benefit Personal commitment, guilt Mind-body-spirit connection
Significant others	Authority of initiators (eg. GP, practice nurse) Continued external support (exercise specialists) Contract and commitment to others Social interaction

beneficial and that acted as motivators to continue the new behaviour. Simple things, such as being out in the fresh air and being active, made people feel better.

'I get a great deal of pleasure, enjoyment from being outdoors.'

Gwen, 57 years, rural European

Some commented on improvements in sleep, self esteem and wellbeing.

'The exercise has made me sleep much easier through the night.'

Rose, 58 years, urban Maori

'A sense of achievement or wellbeing probably would be the other thing... I'm aware that I need to do something about it... make sort of a commitment to yourself.'

Ewen, 49 years, urban European

Not only making the commitment to oneself, but feelings of guilt also helped motivate adherence.

'Just knowing that my body tells me that it's good and I have, I do have guilt feelings if I don't do that quite so often, it's in the mind.'

Gwen

Other negative forces motivated change. Two participants expressed concern about their future health, perceiving inactivity as a threat to health and therefore powerful reasons for changing their behaviour.

'I'm just, I'm frightened to get sick again so I am you know, determined.'

Janine, 58 years, rural European

'So I don't want to finish up spending all the last years of it like my mother.'

William, 76 years, urban European

Several participants emphasised the mind-body connection as a benefit of their activity program. They described physical health linking with a positive attitude to life. There were comments from some participants about the spiritual life whereas others couched it in terms of mood state.

'Being involved with you and the Green Prescription made me somewhere along the line pull myself together, mind body and soul, so I healed fast.'

Christine, 51 years, rural Maori

Significant others

This theme describes the situation whereby significant others exert an influence over an

individual's behaviour. The influence of the general practitioner was pivotal for some participants.

'I think one is more inclined to if your GP gives you the warning.'

William

The Green Prescription involves follow up telephone support from exercise specialists. Wilma's description of a little leprechaun showed the importance of the initial commitment and on going reminders.

'Because at the time that I entered into it [the program] I wasn't doing anything and because it was like having a little leprechaun on my shoulder saying you signed something to say that you're going to do this. It was a prompt...'

Wilma, 49 years, semirural European

Several participants commented that having someone monitoring progress promoted participation, yet views about the follow up telephone calls varied. Some found them patronising.

'Have you been out for a nice little walk today?'

Janine

Janine went on to say that the phone calls were interruptions and she thought of them as distracting her from her work. This again stresses the role of the significant other reminding and even irritating Janine into finding time to do her exercise. However, not everyone was annoyed by their reminders and instead appreciated the personal nonjudgmental approach.

Interestingly, the significant other was sometimes a pet.

'Well I've got a couple of dogs and... they've got to be walked... whether I feel motivated or not.'

Wilma

Overall, the role of significant 'other' was often considered important. In addition to health professionals this was also about having access to groups for support and social participation. Participant recommendations for improving the intervention focused on social interaction, having face-to-face contact, and having group meetings or activities.

Discussion

Four themes emerged that may help inform future physical activity intervention delivery in

primary care. The tailoring of the advice given was seen to be important. Not only was it important to be sensitive in the delivery of the advice, but also the appropriateness of the activities suggested was important. Barriers to physical activity included external aspects beyond the control of the individuals such as the weather or physical environment. Individual barriers included time, physical, health or psychological limitations. Internal motivators to increase physical activity included immediately felt benefits, perceived long term benefits to health (and avoidance of illness or disability), making a commitment, feelings of guilt, and the perceived mind-body or spiritual benefit of physical activity. The role of 'significant others' was important in the initiation of the advice from a health professional and the continued external support from the exercise specialist, as well as the social interaction, and the commitment made to others, whether it be to a health or exercise professional or to a pet.

The GP or practice nurse initiating the exercise prescription gave credibility and legitimised the activity. As noted by Horne and Weinman,⁹ these health professionals were acting as significant 'powerful' others, who had authority to recommend what was beneficial for health. Highlighting the need to exercise during regular follow up telephone calls appeared to be an effective external motivating source and has been shown elsewhere to improve adherence.¹⁰ The calls in this study not only acted as a reminder or 'cue to action',¹¹ but sometimes had the effect of a contract along with the written green prescription itself, ensuring ongoing commitment to undertaking physical activity. Mutually agreed contracts about health care are recommended as a way for facilitating adherence to medication¹² and our results suggest this also applies to physical activity promotion.

According to the transtheoretical model,⁸ the first phase of 'precontemplation' would represent those people who have yet to consider changing. Replies in this study indicated that the intervention could precipitate movement from 'precontemplation' to 'contemplation'. However, once a person has moved into the 'contemplation' phase of the model, provision of encouragement and information may facilitate

the next phase of 'intention' to change. The transtheoretical model's 'preparation' stage suggests that the more precise and detailed this planning phase is, the more likely that change will actually take place. It is at this point that additional support provided by the Green Prescription was useful for some.

Limitations of the study

This is an explorative qualitative study with a small sample chosen purposively to reflect a range of age groups, ethnicities, geographic locations and physical activity uptake. While the generated themes reflect a breadth of individual opinion, they are not representative of the full study population and therefore cannot be generalised to the wider population of sedentary adults in primary care. Any hypotheses made needs to be tested in practice to assess their effectiveness as components of a physical activity intervention.

Conclusion

Evidence for effectiveness of physical activity interventions in primary health care is mixed.⁴ Many successful interventions use behavioural approaches or include follow up support.^{2,7,13} Even so, adherence rates are often limited, particularly long term.¹⁴ The reasons for continued adherence or nonadherence are complex.⁵ Appropriate delivery and individual tailoring of messages, a contract to adhere, addressing of barriers, and continued external support (telephone, group, or face to face) may be as important for promoting physical activity as for long term adherence to self management programs.

Continued external support may be hard to integrate into some primary health care systems where an infrastructure for continued contact does not exist, yet research has shown this approach to be both effective and cost effective.^{7,15,16} The increasing number of health professionals with qualifications to support fitness suggests there is potential for collaboration between the health care sector and the growing fitness sector.

Implications for general practice

- Long term adherence to primary health care physical activity interventions is low.

- Individually tailored and appropriately delivered exercise advice by the health professional, a contract to adhere to, and structured ongoing support, may be important in influencing behaviour change and ongoing adherence.
- Internal motivators and barriers to physical activity need to be identified for each individual.
- Significant others, including health professionals, exercise specialists, social contacts and even pets contribute to the effectiveness of initiating and maintaining physical activity.
- Collaboration between general practice and personal trainer or fitness industry support may improve long term exercise adherence for health benefit.

Conflict of interest: none.

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