Assessing physical activity in general practice: a disconnect between clinical practice and public health?

Tania Winzenberg, Pam Reid and Kelly Shaw

ABSTRACT

Background
GP s comply poorly to public health recommendations to routinely assess their patients’ physical activity. The reasons for this disconnect between recommended practice and GPs’ actual practice are unclear.

Aim
To investigate GPs’ perceptions of assessing physical activity, and to explore how GPs assess their patients’ physical activity.

Design of the study
Qualitative study.

Setting
General practice.

Method
Semi-structured interviews were performed with 15 randomly selected southern Tasmanian GPs, with stratification to include GPs with a range of demographic characteristics. Each interview was recorded, transcribed in full, and analysed using an iterative thematic approach to identify major themes.

Results
GPs recognised the importance of assessing physical activity, but rather than assessing every patient, they target at-risk patients and those with conditions likely to benefit from increased physical activity. Depth of assessment and GPs’ definition of sufficient physical activity varied according to the clinical and social context of each patient. Major barriers were the time needed to perform an adequate assessment and lack of time to deal with physical inactivity in patients once it was identified.

Conclusion
GPs’ assessment of physical activity is a complex and highly individualised process that cannot be divorced from the issue of managing physical inactivity once it is identified. Expectations that GPs will assess physical activity levels in all their patients are unlikely to be met. This must be taken into account when developing strategies to improve physical activity assessment in general practice, and should be considered in policy decisions about approaches to take to improve physical activity levels at a population level.

Keywords
assessment; general practice; physical activity; primary health care.

INTRODUCTION

Physical inactivity is a key risk factor for poor health, with an estimated 58% of adults globally having insufficient physical activity.1 Many international public health authorities recommend that healthcare providers routinely assess and manage their patients’ physical inactivity, as one way to address this.2,4 One peak GP body, the Royal Australian College of General Practitioners, recommends that physical activity is assessed at least yearly in all adults and at each visit in children and adolescents,7 and this is a longstanding recommendation.7

GPs’ compliance with this appears to be poor. In one survey examining GPs’ assessment of physical activity, most reported assessment of physical activity in patients with symptoms of conditions that could benefit from exercise (93% of GPs), in new patients (47% of GPs), and less often in patients who had previously been seen (38% of GPs).4 Only 20% of GPs reported often or almost always recording a patient’s level of physical activity. Provision of patient advice by GPs to increase physical activity has similarly been reported as being targeted to high-risk groups,9–12 rather than given to all patients. The reasons for this disconnect between recommended practice and GPs’ actual
clinical practice are not clear, but it persists despite the adverse health effects of physical inactivity being widely known and despite health promotion being a core part of GPs’ training in countries including the UK, the US, and Australia. This evidence gap must be addressed to determine whether current public health recommendations regarding physician assessment of physical activity are appropriate and feasible.

The aim of this study was, therefore, to investigate GPs’ perceptions of assessing physical activity, and to explore how GPs assess physical activity in their patients.

METHOD

Fifty-six southern Tasmanian GPs were invited to participate; they were randomly selected from a current listing of all 313 GPs in that region, using computer-generated random numbers with stratification to include GPs of both sexes, from a range of ages and from both urban and rural practices, with the aim of maximum variability purposeful sampling on these variables. Semi-structured interviews were performed with 15 GPs.

Semi-structured interviews are a flexible and dynamic form of qualitative interviewing where the interviewee has a list of issues/themes to be explored during the interview, but these are delivered in no particular order and points raised by the interviewee are followed up as they occur. Semi-structured interviews were chosen for this study because they are well suited for an exploratory study focused on elucidating participants’ experiences and points of view.

The interviews were guided by a schedule (Appendix 1) of 14 questions, each with suggested prompts to use as appropriate to expand on interviewee’s exploration of their experiences and perceptions. This covered:

• assessment of the patient groups in which GPs assess physical activity;
• description of the methods GPs use to assess physical activity; and
• exploration of GPs’ perceptions of barriers to assessing physical activity.

Demographic data (age, sex, practice location, number of session worked/week) were also collected at interview.

Recruitment was by letter of invitation followed by telephone contact. GPs were offered the choice of face-to-face interview at a location of their choice, or telephone interview. All participants gave either verbal or written informed consent. Interviews were performed by one author between May and December 2007. Each interview was recorded and transcribed in full.

Two researchers analysed the interview transcripts using an iterative thematic approach. Each researcher read and coded the interviews as they were transcribed, producing two independent lists of codes. One researcher compared both lists of codes then re-read the transcripts to identify major themes. No new themes emerged after the 15th interview, and a decision was made to cease interviewing.

RESULTS

Fifteen out of 56 invited GPs (27%) participated. Of these, six were aged ≤45 years, seven were male, eight were in urban practice, and nine worked more than eight sessions/week, that is, at least 0.8 full-time equivalents. Key interviews themes are described below.

Which patients do GPs assess?

Table 1 describes, with illustrative quotes, the factors affecting the likelihood of a physical activity assessment being done and/or the depth of the assessment. Assessment of physical activity was more likely if physical activity was relevant to the patient’s presenting complaint or to a chronic disease being managed in the consultation, such as overweight/obesity, cardiovascular disease, and risk factors. GPs generally did not assess every patient, and the assessment process varied from patient to patient.

Questions used in assessment were tailored to the individual:

‘It’s such an individual thing. If you go through some checklist you would undoubtedly find that each time you did it, probably half the questions weren’t relevant to that particular patient ... what’s relevant to one patient isn’t to the other.’ (GP7)

The depth of assessment also varied. Less time
was spent if it was clear patients were not receptive to change. More time was taken and more detail elicited in the presence of relevant clinical conditions, as described above.

**How do GPs assess physical activity?**

GPs most often used verbal history taking for their assessment. They reported needing and/or seeking a trigger to discuss physical activity; for example, identifying a relevant medical condition or risk factor, or using the measurement of a patient’s height and weight as a trigger. They were aware of the subjective nature of this approach:

‘It’s not all that easy verbally to assess how much people are exercising ... often they think they’re active when they’re not really exerting themselves very much. [For example] ... walking can be anything from strolling, or if they own a dog then the dog might sort of walk very slowly or Pee at every ... corner, so they’re not really getting aerobic exercise while they’re walking.’ (GP4)

GPs’ assessments included the domains of physical activity, for example, type, frequency, intensity, and duration of activity, although not all GPs reported systematically covering all four domains. However, GPs typically also sought information beyond these domains, including social factors, patient preferences for exercise, medical conditions affecting the ability to exercise, and potential motivating factors to use to encourage patients to increase their physical activity. Table 2 provides a more detailed description of the aspects assessed, with relevant quotes from GPs.

Other tools GPs used for assessing physical activity were formal exercise prescription tools,18 physical examination, pedometers and/or diaries, involving other health professionals, and direct

<table>
<thead>
<tr>
<th>Table 1. Factors affecting the likelihood of physical activity assessment being performed and/or depth of assessment.</th>
<th>Illustrative quotes</th>
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<tbody>
<tr>
<td><strong>Factors increasing the likelihood and/or depth of assessment</strong></td>
<td></td>
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<tr>
<td>Clinical context</td>
<td>‘If somebody’s got diabetes ... then you know it’s [physical activity is] part of the treatment ... to do with control of blood sugar.’ (GP9)</td>
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<tr>
<td>Presence of target chronic diseases</td>
<td>‘If they are obese or diabetic or have any heart problems ... I feel that it’s important to investigate what sort of physical activity they engage in so that if it’s something that’s neglected in their lifestyle that’s obviously something that one has to encourage them to do.’ (GP15)</td>
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<tr>
<td>Use of enhanced primary care items*</td>
<td>‘Our practice has got really into the management plans and care plans and health assessments ... [physical activity] does get assessed in the course of an annual health check for the oldies.’ (GP7)</td>
</tr>
<tr>
<td><strong>Factors decreasing the likelihood and/or depth of assessment</strong></td>
<td></td>
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<tr>
<td>Patient perceived as not ready to change physical activity levels</td>
<td>‘I guess it comes back to the motivation of people and when they feed back that their motivation is low then ... it goes down to the bottom of the list.’ (GP5)</td>
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<tr>
<td>Younger age</td>
<td>‘I probably don’t bring up exercise with younger people unless there’s an issue that I link it with.’ (GP9)</td>
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<tr>
<td>Older age</td>
<td>‘I probably don’t do it enough in the elderly.’ (GP8)</td>
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<tr>
<td>Being of normal body weight</td>
<td>‘If they’re not obese, then I don’t tend to worry so much about physical activity.’ (GP7)</td>
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*These are specific government reimbursed general practice activities for health assessments in preventive care and for chronic disease management.
How much physical activity is enough?

The level of physical activity GPs considered adequate for the average person was generally consistent with recommended guidelines. However, GPs noted the importance of tailoring their assessment of the adequacy of a patient's physical activity and their recommendations to each patient's circumstances. This varied with factors like the patient's current physical activity levels and medical history. The following quotes illustrate a variety of factors GPs considered when making this judgement:

“You’ve got to be practical … in terms of recommending something that is realistic for how old they are and how generally fit and healthy they are. So … a 70-year-old lady who’s overweight it’s obviously pretty impractical to suggest that she starts playing footy. You might have a young bloke that is playing a bit of footy, but still quite overweight where you might suggest an extra walk or two a week.” (GP2)
‘I talk about the aerobic component and a minimum of 30 minutes a day for people who are otherwise healthy, increasing to 60 minutes a day or more for people who want to lose weight or for people with diabetes or ... for depression. And the strength component particularly for people with osteoporosis and diabetes ... It depends on what they present with.’ (GP5)

‘If they are walking 8000 steps per day and they’re still overweight ... I’ll say look let’s try to increase it to 10 or 12 000 steps per day ... If they’re doing ... 2000 or 5000 steps per day then I will say we could get up to 8, 10 ... you do adjust it according to the patient’s current physical activity.’ (GP1)

‘Someone in their twenties, if they say “... I walk to the store a few times a week”, that's probably not enough for someone of that age, but ... for an elderly person, if they say “I do the gardening and I walk to the store a few times a week” then that’s probably reasonable.’ (GP2)

**Why do GPs assess physical activity?**

Physical activity was, without exception, recognised as important for good health and the prevention and management of chronic disease. GPs were aware of the spectrum of chronic diseases that are preventable and/or better managed by increasing physical activity, including obesity, diabetes mellitus, hypertension, cardiovascular disease, and depression. Assessing physical activity was therefore also recognised as important, although usually no more so than other lifestyle factors such as smoking and diet:

‘Physical activity along with obesity, it’s ... the smoking ... of this decade.’ (GP8)

GPs’ perception of the importance of assessing different lifestyle behaviours varied with the patients’ individual circumstances:

‘I think it’s probably on a par with [other lifestyle factors] in some situations and probably ... a bit less important in other situations. If you’ve got someone ... with angina your first priority is to control it and make sure they’re not going to drop dead, and cut their smoking out ... you can talk about it [physical activity] as part of that but I think given my choices I’d rather they stopped smoking than started running straight away.’ (GP7)

Several GPs placed a higher priority on assessing smoking behaviour than physical activity:

‘Stopping smoking ... is the most important preventive thing and getting out and exercising would be the second most important.’ (GP6)

**Why don’t GPs assess physical activity?**

Lack of time was by far the barrier raised most frequently by GPs and was the key reason for targeting assessment rather than assessing every patient:

‘The problem ... is finding the time to assess ... every individual patient. It is not easy.’ (GP10)

Within a consultation, there were often competing priorities:

‘Physical activity often gets short shrift behind ... dealing with their obesity or finding out that they’re having falls and having to work out what’s going on there ...’ (GP7)

GPs felt that thorough assessment took substantial time, and that once physical inactivity was identified, they were under pressure to find time to deal with it:

‘You can either do it very quickly and you get a very superficial view or it does take a long time.’ (GP8)

‘If I ... start that conversation about physical activity when we’re actually doing something completely different ... I’ll never get out of the conversation, I’ll be stuck here for ages.’ (GP8)

GPs were very aware of the need to manage their time overall as well as to manage the time available for each individual patient:

‘It’s [physical activity is] high priority but at the end of the day we need to be mindful of our time too as GPs.’ (GP1)

‘I wouldn’t bring it up ... if I was running late.’ (GP9)

‘If one had more time, then yes one can assess all of this quite adequately ... But when you are the only doctor in town, and I am ... my day is pretty full.’ (GP10)

‘We have got very limited time allowance for the patient.’ (GP11)

While GPs used follow-up consultations as a way to manage the time constraints they faced, this was not always easy:
‘There is a time pressure ... you might say, “Oh we really need to talk about this ... but ... I’m already 10 minutes over time with you and half an hour over time overall ... can I get you to come back in?” But ... they may or may not come back in. And ... I actually don’t like getting people back in, because I’m so busy and people have to book in a couple of weeks ahead ... I feel a bit guilty about getting people back in for just one small thing.’ (GP7)

Table 3 describes and illustrates other barriers perceived by GPs, including patient and GP interest, the subjective nature of physical activity assessment, and issues specific to some patient subgroups.

**DISCUSSION**

**Summary of main findings**

This study highlights important differences between public health and GPs’ approaches to physical inactivity, an understanding of which will contribute to the better integration of general practice-based and population-based physical activity promotion. Although both public health practitioners and GPs undertake preventive activities, their scope of influence varies from the individual (GP) to the population (public health). In the case of physical inactivity, the efforts of public health authorities to improve physical activity levels in the population as a whole via general practice have had limited success. Seemingly straightforward and sensible public health recommendations have not been adopted by GPs because, from the GP’s perspective, physical activity assessment is a complex and highly individualised process. GPs individualise each step of the assessment process — they typically target assessment to patients at high risk of disease and they tailor the depth of the assessment and their actual assessment process to the individual. Even their opinion about whether a patient achieves sufficient physical activity is individualised, taking into account each patient’s circumstance rather than strictly applying population guidelines. Moreover, GPs collect substantial information to allow them to proceed to tailoring an approach to increasing physical activity for each patient. This demonstrates a clash of paradigms, between the individualised clinical approach taken by GPs and population health, and intervention research approaches where
recommendations are made for a whole population and results are described for groups.

A major barrier to GPs screening all their patients for levels of physical activity is time. There are simple validated screening tests, taking only a few minutes to administer, for use in general practice.\textsuperscript{25-27} However, time constraints make even these challenging, and this is reflected in their limited use by GPs. GPs also, without exception, perceived assessment to include eliciting all the information they need to manage physical inactivity, which is also time consuming. Furthermore, for GPs, screening for and management of physical inactivity merge together. The obligation GPs feel to deal with the problem once it is identified, which takes substantial time, deters screening.

**Strengths and the limitations of the study**

This study used qualitative methods to gain insights into GPs’ experiences and perceptions and was appropriate to the research question. Strengths include the use of purposeful sampling, use of full transcription, investigator triangulation, and the iterative analysis approach. The study was undertaken in one Australian state, but as the delivery of general practice services occurs under the same federal government structural arrangements throughout Australia, the findings are unlikely to vary in other states. The response rate was low but the study sought a broad, rather than a representative, sample. It succeeded in its a priori goal of interviewing GPs with a range of demographic characteristics. Furthermore, the findings were consistent with previous research so the authors are confident that the results are relevant to GPs in general.

**Comparison with existing literature**

The study findings are consistent with and substantially explain the results of previous GP surveys.\textsuperscript{4,17} GPs’ targeting of advice is better understood in the light of the study findings regarding the time pressure GPs feel, their perception of the complexity of assessment, and their capacity to address physical inactivity. It is probable that these same factors apply to assessment and changing of other complex behaviours. For example, nutrition counselling rates in primary care are similarly low,\textsuperscript{25,26} time is a major barrier,\textsuperscript{25,27} and primary healthcare providers target intervention to at-risk groups.\textsuperscript{25,24,26}

**Implications for future research and clinical practice**

Understanding the important differences between the clinical approach of GPs and a population approach means that researchers, public health practitioners, and policy makers will be better placed to consider how to work with general practice and use GPs to complement other population-based strategies for physical activity promotion. This includes recognising that expectations that GPs will screen every patient are unlikely to be met. A much more feasible goal is to encourage GPs to screen high-risk patients. This leads to the question, how can the assessment and improvement of general practice patients’ physical activity best be facilitated? The present findings suggest that interventions to accomplish this will need to reduce rather than increase the burden on GPs and reduce GPs’ perception that they have to deal with patients who are physically inactive themselves. Interventions must also integrate with GPs’ clinical practice. This is likely to require that public health practitioners consider alternative physical activity assessment processes, to reach people who are unlikely to be targeted in general practice. Referal pathways within and outside of general practices to improve the capacity of GPs to address physical inactivity, once identified, are also of critical importance. This could include using practice nurses for physical activity counselling and/or referral to external counselling, as has already been shown to be successful.\textsuperscript{28,29} In particular when the central role of the GP is retained.\textsuperscript{19}

In conclusion, the results of this study show that GPs’ assessment of physical activity is a complex and highly individualised process that cannot be divorced from the issue of managing physical inactivity once it is identified. This divergence from a population-focused public health approach must be taken into account when developing strategies to improve physical activity assessment in general practice, and should be considered in policy making regarding decisions on what approaches to take to improve physical activity at a population level.

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**Ethic approval**

The study received ethics approval from the Human Research Ethics Committee (Tasmania) Network (H9220)

**Competing interests**

The authors have stated that there are none

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We thank the GPs who gave up their valuable time to participate in this study.

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**REFERENCES**


Appendix 1. Interview schedule.

Notes: Key questions are indicated in bold, possible prompts are given in parentheses. The order/wording of questions and the interviewer’s choice of which prompts to use is expected to vary from interview to interview depending on how information flows from the individual study participant.

Preamble: ‘I would like to talk to you about your opinions on and experiences of assessing physical activity in general practice.’

In general, what priority would you give to assessing patients’ level of physical activity?

How important do you think physical activity is in maintaining people’s health/preventing disease?

Has physical activity a role in managing chronic diseases?

Is assessing patients’ physical activity levels something that you regularly do?

How do you decide whether or not to assess a particular patient’s physical activity levels?

How would you determine a patient’s physical activity levels?

Have you encountered any problems or barriers when you try to assess your patients’ physical activity?

Do you currently make physical activity recommendations to your patients? Would you give patients advice to increase their physical activity?

Are there other health professionals (other GPs, nurses, other?) in your practice involved in physical activity assessment?

Do you have any systems in place for physical activity assessment?

What do you understand the current recommendations for levels of physical activity to be for the general community?

Where would you go to find information about physical activity if you needed it?

Do you have any comments regarding any of the resources or tools you use?

Basic demographic data: age, sex, practice location (urban versus rural), number of sessions usually worked per week.

Is there anything further you would like to tell me about any of the things we’ve talked about today?