



Elizabeth Denney-Wilson

Mahnaz Fanaian

Qing Wan

Sanjyot Vagholkar

Heike Schütze

Mark Harris

Lifestyle risk factors in general practice

Routine assessment and management

Background

Evidence based guidelines recommend that adults be assessed for modifiable lifestyle risk factors: smoking, nutrition, alcohol and physical activity (SNAP) regularly. This article discusses the routine practices of GPs regarding assessment and management of these risk factors.

Method

General practitioners participating in two randomised controlled trials completed questionnaires about their assessment and management of SNAP risk factors.

Results

Over half of the GPs usually assessed smoking and alcohol, and assessed a patient's readiness to change before offering advice. Diet and activity were assessed less frequently, with only 22% usually assessing diet and 28% usually assessing activity. Referral rates were low, with less than 10% of GPs reporting that they usually referred patients to programs. Less than 20% of GPs reported having difficulty referring to programs.

Discussion

Chronic disease risk factors are common in the Australian population, and GPs are ideally placed to offer assessment, advice and referral to services and programs. Recent changes to Medicare rebates for prevention activity may encourage a greater focus on prevention.

Keywords: research; general practice; cardiovascular, rehabilitation; preventive medicine; risk factors



Chronic disease prevention is an important priority in the Australian healthcare system.¹ The Council of Australian Governments in its Plan for Better Health for All Australians² identified the importance of promoting healthy lifestyles, including addressing smoking, nutrition, alcohol use and physical activity (SNAP).

Risk factors for chronic disease are common in the Australian population, in 2007–2008, 60% of the Australian adult population was overweight or obese, 70% did not participate in sufficient physical activity, 90% consumed less than the recommended amount of vegetable intake and 16% were regular tobacco smokers.¹ The same report notes that 30% of Australian adults have high blood pressure, while almost 50% have high cholesterol, and one in six adults has impaired glucose regulation.¹ It is estimated that 90% of adult Australians have at least one risk factor for cardiometabolic disease.³ However, there is increasing evidence that a substantial proportion of illness and mortality is amenable to health interventions that focus on behaviour change⁴ and general practitioners are ideally placed to facilitate behavioural change among their patients through provision of brief interventions and referral to services and programs.⁵

There is a significant gap between the current guidelines and the frequency of assessment of alcohol consumption and smoking, as well as counselling about hazardous drinking, smoking, physical inactivity, and diet.⁶ In 2005–2006, 35% of general practice encounters were with overweight patients (22% of these were obese), 26% were patients who

drank alcohol at risk levels, and 17% were with daily smokers.⁷ However, previous research suggests that less than 20% of patients are routinely asked about their drinking,^{8,9} only about 66% are asked about their smoking,¹⁰ and only 12% receive counselling for diet and weight management.¹ Reasons cited for failing to assess and offer interventions include:

- lack of knowledge, skill and confidence on the part of the GP
- competing pressures on GPs' time
- lack of supportive organisational infrastructure
- limited referral options
- lack of specific funding to support assessment, training and counselling
- an unsystematic approach.^{11–13}

The aim of this article is to discuss the routine practices of GPs around assessment and management of the modifiable risk factors of tobacco smoking, nutrition (low fruit and vegetable consumption), alcohol misuse and inadequate physical activity.

Method

General practitioners were recruited to one of two cardiovascular disease research studies being conducted by the University of New South Wales Research Centre for Primary Health Care and Equity (the Absolute Risk Trial and the Health Improvement and Prevention Study). The Absolute Risk Trial is the first study in Australian general practice to evaluate the implementation of cardiovascular absolute risk assessment and management.¹⁴ The Health Improvement and Prevention Study¹⁵ is designed to evaluate the impact of an intervention for patients at high risk of vascular disease. Both trials commenced in 2008 and had the same recruitment

procedures for GPs and patients and collected similar baseline information regarding routine management of cardiovascular risk factors.

General practitioners were contacted through divisions of general practice, areas covered included, southeastern Sydney, central Sydney, eastern Sydney, Bankstown, Liverpool/Fairfield, Dubbo and Northern Rivers. Contact was made either through newsletter items, or by direct approach from a member of the division staff. To participate in the study GPs had to be conducting at least four sessions per week, using electronic prescribing software and not currently participating in any other cardiovascular disease research. General practitioners provided written consent to participate.

General practitioners were asked to complete a questionnaire which collected basic demographic information about their current practice in patients aged 40–69 years around SNAP risk factors including assessment, management and referral to support services. General practitioners were asked about:

- frequency of assessment of SNAP in all patients
- management of patients with SNAP risk factors, in particular:
 - frequency of assessment of readiness to change (stage of change)
 - frequency of advice given to patients to increase fruit and vegetables, exercise regularly, stop smoking, decrease alcohol consumption
 - frequency of referral to other services, providers or support groups for diet programs, physical activity programs, smoking cessation programs, alcohol programs
 - frequency of encountering lack of availability of other services, providers or support groups to refer patients for SNAP.

Regarding patients who were overweight or obese, had prediabetes, high blood pressure or high lipids, GPs were asked about the frequency of:

- recommending fewer calories
- advising less dietary fat
- advising regular exercise
- setting a goal for weight loss
- prescribing new medications.

For all of the above questions, the possible responses were:

- never 0%

- rarely 1–20%
- sometimes 21–40%
- half the time 41–60%
- often 61–80%
- usually 81–99%
- always 100%.

Data was analysed using SPSS Version 17 for Windows. Continuous variables were tested for significance by independent t-test, categorical variables were tested for significance by the χ^2 Chi-square test. Descriptive and univariate statistics were used to explore differences in the provision of advice, referral, and assessment of SNAP risk factors and readiness to change between male and female GPs and by time in general practice.

Ethics approval was obtained from the University of New South Wales Human Research Ethics Committee for both studies.

Results

Ninety-two GPs were recruited into the studies from a mix of solo and group practices and 90 questionnaires were returned. Multiple attempts were made to collect the remaining questionnaires without success. Basic demographic details of the participating GPs are shown in *Table 1*.

Table 2 summarises the routine assessment, advice and referral for SNAP risk factors by GPs in the studies. More than twice as many GPs routinely assessed and offered advice for

smoking and alcohol than for diet and physical activity. A higher proportion of GPs assessed readiness to change smoking and alcohol habits than diet and physical activity. Routine referral to services or programs was very low for all of the SNAP risk factors, although difficulty referring to services was not frequently reported.

Table 3 summarises the management of patients who were overweight, or who had prediabetes, high blood pressure or high lipids. Regular exercise was routinely suggested by two-thirds of GPs for this group of patients and GPs were more likely to provide advice about diet and physical activity if any of these conditions was present. Almost half of GPs reported that they routinely helped patients set goals for weight loss.

There was no significant difference between male and female GPs in the frequency of assessment or management of SNAP risk factors, assessment of readiness to change, or provision of advice or referral. One exception was that female GPs were more likely to recommend regular exercise to patients with high lipids (chi-square 6.0, $p=0.014$). Length of time in general practice was not significantly associated with assessment or management of risk factors.

Discussion

This article aims to describe the routine prevention practices of GPs. The authors found that of

Table 1. Characteristics of participating GPs

Characteristic	Subgroup	Number (%)
Gender	Male	53 (57.6)
	Female	37 (42.4)
Age	25–34	1 (1.1)
	35–44	24 (27.0)
	45–54	37 (41.6)
	55–64	24 (27.0)
	65+	3 (3.4)
Years in general practice	0–5	7 (8.0)
	6–10	11 (12.5)
	11–15	14 (15.9)
	16–20	20 (22.7)
	21–25	16 (18.2)
	25+	20 (22.7)
Practice size	Solo	12 (18.8)
	Group	78 (81.2)

the SNAP risk factors, smoking and alcohol consumption were usually assessed by over half of GPs with only one-quarter usually assessing nutrition and physical activity. Smoking and alcohol consumption are more simple to assess and are long established domains of the routine medical history. However, diet and physical activity are relatively time consuming to assess, there is no simple measurement tool, and results are open to misinterpretation by patients. The authors found that more GPs reported usually ‘offering advice’ than ‘assessing readiness to change’, which suggests that patients may have been receiving advice that they were not ready to listen to or act upon. Routine assessment of readiness to change before offering suggestions or advice may yield better results for lifestyle counselling.

A surprise finding of this study was that although very few GPs reported usually referring to allied health services or programs, difficulty with referring to services was not frequently reported. It is possible that the low rate of referrals is due to the GPs’ lack of time, or more acute patient problems taking precedence over prevention. The expanding role of the practice nurse in providing preventive care may offer a solution to the assessment, management and referral of lifestyle risk factors and allow the GP

more time for acute care.

In our study, GPs were more likely to offer specific diet and activity related suggestions to patients who were overweight, had impaired glucose tolerance (IGT) or impaired fasting glucose (IFG), high blood pressure or high lipids. This suggests that lifestyle counselling is more likely when an overt risk factor is present.

Study limitations

The studies have some limitations. The participating GPs were aware they were involved in a cardiovascular disease research project and as such may have been particularly motivated to provide preventive care to patients. The participating GPs were from metropolitan Sydney or large regional centres and may not be representative of all Australian GPs.

Conclusion

Recent changes to the Medicare schedule to include item numbers for longer consultations suitable for preventive care may encourage more GPs to provide routine assessment and management of modifiable lifestyle risk factors. Previous research¹⁶ suggests that GPs may benefit from participation in practical training in assessment and advice for lifestyle risk factors.

Summary of main points

- Alcohol and smoking are more frequently assessed by GPs than diet and activity.
- Referral rates by GPs to allied health services is very low.
- Assessing readiness to change before offering advice or suggestions may yield improved results from lifestyle counselling.

Authors

Elizabeth Denney-Wilson BN, MPH, PhD, is Research Fellow, Centre for Primary Health Care and Equity, University of New South Wales. e.denney-wilson@unsw.edu.au

Mahnaz Fanaian BSc, MSc, PhD, is Research Fellow, Centre for Primary Health Care and Equity, University of New South Wales

Qing Wan MBBS, MMed, MPH, PhD, is Research Fellow, Centre for Primary Health Care and Equity, University of New South Wales

Sanjyot Vagholar MBBS(Hons), MPH, FRACGP, is Staff Specialist, General Practice Unit, Sydney South West Area Health Service, and Conjoint Lecturer, School of Public Health and Community Medicine, University of New South Wales

Heike Schütze BSc, MPH, is a research officer, Centre for Primary Health Care, University of New South Wales

Mark Harris MBBS, FRACGP, MD, is Professor and Director, Centre for Primary Health Care and Equity, University of New South Wales.

Table 2. Number (percent) of GPs usually or always providing assessment, advice and referral for patients with SNAP risk factors

Risk factor	Assess risk factor	Assess readiness to change	Advice	Referral	Referral difficulty
Smoking	68 (73.9)	53 (57.6)	71 (81.6)	15 (16.9)	11 (12.5)
Nutrition	19 (21.6)	27 (30.3)	32 (34.8)	5 (5.6)	14 (15.7)
Alcohol	58 (63)	44 (49.4)	50 (56.8)	6 (6.5)	17 (19.3)
Physical activity	26 (28.3)	29 (32.6)	49 (53.3)	4 (4.3)	15 (17.0)

Table 3. Number (percent) of GPs who usually or always give specific suggestions for patients with the following risk factors

Advice offered	Overweight or obese	Prediabetes (IGT or IFG)	High blood pressure	High lipids
Recommend fewer calories	45 (50.6)	55 (61.8)	34 (38.6)	47 (54.0)
Advise less dietary fat	60 (68.2)	64 (71.9)	42 (48.3)	72 (81.8)
Advise regular exercise	66 (71.7)	71 (81.6)	68 (77.3)	67 (76.1)
Set a goal for weight loss	43 (46.7)	49 (55.1)	36 (40.9)	35 (40.2)
Prescribe new medications	5 (5.6)	14 (15.7)	30 (34.1)	25 (28.4)

Conflict of interest: none declared.

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correspondence afp@racgp.org.au