

Barriers to preventive care in general practice: the role of organizational and attitudinal factors

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SUMMARY

Background. There are numerous barriers to preventive care. In this paper we focus on barriers related to the organization of preventive services and to the general practitioners' (GPs') attitudes and self-efficacy expectations. The prevention of cardiovascular disease was taken as a case study.

Aim. To study the organization of cardiovascular services and the attitudes and self-efficacy expectations of GPs, the relationships that exist between these factors, and the influence of practice and provider characteristics.

Method. A survey was conducted among 95 general practices with 195 GPs.

Results. Few practices were sufficiently well-organized to provide effective preventive services. Seventy per cent of the GPs had positive self-efficacy expectations. Thirty to fifty per cent had positive attitudes. Few relationships were found between the organization of services and positive attitudes or expectations. Moreover, few relationships were found between practice and provider characteristics and barriers studied. List size played some role in the presence of barriers.

Conclusion. Barriers to prevention exist. Even a positive attitude or self-efficacy expectation does not automatically coincide with a practice organization equipped for prevention. Changing attitudes is probably not enough. Efforts have to be directed at the organization of services.

Keywords: preventive medicine; doctors' attitudes; administration; GP services.

Introduction

GENERAL practitioners are in a favourable position to provide preventive care by giving information and education on healthy lifestyles, by carrying out immunization, and by screening for and diagnosing diseases at an early stage. Most patients have an ongoing relationship with their GP: about 90% of the patients consult their GP at least once every three years. Many of these contacts offer opportunities for preventive care.^{1,3} In order to integrate and promote preventive care in general practice,

numerous guidelines were developed and disseminated.

Research in different countries indicates that rates of preventive activities are generally low.^{4,7} An important reason for the gap between recommended and actual performance may be that, in the implementation of guidelines, barriers to preventive performance are neglected. Barriers may concern physician factors (e.g. lack of motivation), health care delivery system or practice factors (e.g. poor organization of services), and patient factors (e.g. non-compliance).⁸⁻¹⁰ In order to set up effective programmes for implementing prevention in general practice, it is crucial to identify specific barriers.

Several studies have shown the importance of an adequate practice organization for detecting and following up patients at risk, and have recommended implementation of prevention by improving the organization of preventive services.^{8,10-12} In most studies, different aspects of the organization have been addressed separately.¹³⁻¹⁵ Attitudes and self-efficacy expectations are also often emphasized as important, as these are seen as predictors of intentions and, ultimately, behaviour.^{16,17} It has been demonstrated, for example, that GPs have particularly different views on their responsibilities for prevention and on the acceptability and feasibility of prevention.^{18,19}

While setting up effective programmes for implementing prevention, it is not only important to identify barriers, it is also important to get a better understanding of the characteristics of practices and GPs with respect to barriers; for example, do single-handed practices experience more or different barriers than partnerships? This paper explores barriers to prevention in general practice. The prevention of cardiovascular disease was taken as a case study. We examine the organization of cardiovascular services in general practices, and attitudes and self-efficacy expectations of GPs, as well as the relationship between these factors. Practice and provider characteristics that account for differences in the presence of barriers are explored.

Method

Design and subjects

Baseline data on the organization of services and on the attitudes and self-efficacy expectations of GPs are presented. These data were collected among 95 practices, with 195 GPs participating in a study with the aim to implement the prevention of cardiovascular disease in general practice. This study was initiated in two regions of the Netherlands in 1991. The following criteria were used to select practices: type of practice, list size, participation in vocational training, and employment rate of the practice nurse. (Dutch practice nurses, or better, practice assistants, are the equivalent of British practice nurses, except that they are more involved in administrative tasks rather than in medical procedures.²⁰) Table 1 shows data on characteristics of practices and physicians.

Variables and procedure

Organization of preventive services. Organizational aspects (as formulated in the Dutch College of General Practitioners' national guidelines on prevention of cardiovascular disease in general practice, and completed by information from the literature were reviewed in a consensus procedure. Relevant, applicable, and feasible aspects were selected on detection of patients at risk,

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their follow-up, registration of preventive activities, and teamwork (Table 2). For each practice, data on the organization of cardiovascular services were gathered by questionnaire and observation. Data on each aspect were dichotomized: practices were either well-organized or not.

General practitioners' preventive attitudes and self-efficacy expectations. These included:

- opinions on the acceptability of (cardiovascular) prevention (i.e. perceived acceptability from the patients' viewpoint)
- opinions on the feasibility of prevention (i.e. the availability of proper practical means to carry out preventive activities)
- opinions on the responsibility of general practice for prevention, and
- self-efficacy expectations (i.e. whether general practice is capable of realizing preventive behaviour in patients).

General practitioners completed a questionnaire on these subjects. It contained 36 items derived from validated Dutch questionnaires.^{18,19} The items were statements with five-point Likert scales ranging from 'strongly agree' to 'strongly disagree'. For each set of items, factor analysis (principal component) was used to test whether items clustered as expected. The internal consistency of each scale was assessed (Cronbach's alpha). Four scales were formed (factor loading ≥ 0.40): acceptability (5 items, $\alpha = 0.52$), feasibility (4 items, $\alpha = 0.62$), responsibility (8 items, $\alpha = 0.63$), and self-efficacy (7 items, $\alpha = 0.76$). Unweighed sum

Table 1. Characteristics of the participating practices ($n = 95$) and of the participating general practitioners ($n = 195$).

95 practices		
% single-handed		42
% with ≥ 2500 patients per full-time equivalent GP		44
% with ≥ 0.8 practice nurse per 2500 patients		77
% with GP involved in vocational training		55
% using a computer		83
% with an urban practice location		56
195 general practitioners		
Age in 1991	<40 years	34%
	40-49 years	46%
	50-59 years	14%
	≥ 60 years	6%

scores per GP were used in the analyses.

Practice and provider characteristics. Questions on practice and provider characteristics were part of the questionnaire on the organization of services and included:

- type of practice (single-handed versus any form of partnership)
- list size (< 2500 versus ≥ 2500 patients per full-time GP)
- employment rate of practice nurse (< 0.8 versus ≥ 0.8 per 2500 patients)
- participation in vocational training (involved versus not involved)
- practice uses a computer (or not)
- practice location (rural versus urban), and
- age of GP(s) (≤ 40 versus > 40) and practice nurse(s) (≤ 30 versus > 30).

All variables were dichotomized.

Analysis

In analyses concerning attitudes and self-efficacy expectations (frequencies, Pearson correlations), the unit of analysis was the GP. Of 13 participants, information on attitudes and self-efficacy expectations was missing and these GPs were not considered in the analyses ($n = 182$). Each characteristic of the practice or provider was related as a bivariate by chi-square tests and by multiple logistic regression analysis to a dichotomized attitude and self-efficacy score: the more positive GPs (50%) and the less positive GPs (50%).²¹

In all other analyses, the unit of analysis was the practice ($n = 95$). If necessary, data gathered on the individual level were aggregated to a practice characteristic by averaging the scores of the individuals per practice. These average scores (age, attitudes, self-efficacy) were dichotomized. The organization of services and attitudes or self-efficacy expectations were related using chi-square tests and multiple logistic regression analysis. The same analyses were used to explore relationships between practice and provider characteristics, and organization of services.

Results

Organization of preventive services

Table 2 shows that, with regard to two organizational aspects,

Table 2. Percentage of well-organized practices (concerning preventive cardiovascular services) ($n = 95$).

Detection of patients at risk		
Proactively invite patients at risk of cardiovascular disease (CVD) (i.e. not guided by complaints of the patient or assumptions of the GP)		36
Sex-age register available (i.e. a complete sex-age register, computerized or not)		71
Follow-up of patients		
Make a CVD follow-up appointment with the patient (i.e. an appointment is made immediately after the last consultation)		65
Provide a CVD appointment card (i.e. an appointment card is provided as a reminder to the patient)		39
Register the reason for follow-up in the appointment book		32
Contact patients who fail to attend a CVD appointment		14
Registration of preventive activities		
Register preventive activities systematically in a log book (i.e. to self-assess progress)		2
Teamwork within the practice		
Delegate CVD preventive activities to the practice nurse (i.e. the practice nurse carries out at least 4 activities to prevent CVD)		19
Have written CVD protocols available for all team members		5
Hold regular, scheduled meetings (i.e. meetings at least once every 3 months and for at least 30 mins)		31

more than half of the practices were well organized. About 70% of the practices had a sex-age register available. Almost the same percentage made follow-up appointments with cardiovascular risk patients immediately after a consultation. On the other hand, activities were systematically registered in a log book in only 2% of the practices, and written protocols were available in 5% of the practices. Because of their low occurrence, these last two aspects were left aside in further analyses.

General practitioners' attitudes and self-efficacy expectations

Most GPs had positive self-efficacy expectations (Table 3); on average, about 70% of the GPs thought that general practice was capable of realizing preventive behaviour in patients. On the other hand, about one third of the GPs believed that cardiovascular prevention is feasible in general practice, and about half of the GPs perceived prevention as their responsibility, or found that, from the patient's viewpoint, it was acceptable to carry out preventive activities.

Relationships between the organization of services and attitudes or expectations

A significant relationship ($P \leq 0.05$) was found between opinions on responsibility and proactive invitation of patients, and between opinions on self-efficacy and registration of follow-up appointments. These relationships pointed in the expected direction: GPs with a positive attitude were more often well organized.

Practice and provider characteristics in relation to the organization of preventive services

Explorative analyses showed that most relationships between practice and provider characteristics and the organization of services were not significant. Significant relationships clustered around two organizational aspects: availability of a sex-age register, and regular team meetings. A sex-age register was more often available in computerized practices and in rural practices. Forward stepwise logistic regression analysis confirmed these findings. Regular team meetings were more often held in partnership practices, in practices with fewer patients, in practices with more practice assistance, and in practices in which GPs were, on average, under 40 years of age. Logistic regression analysis confirmed these findings; all variables except the GPs' age were included in the equation.

Practice and provider characteristics in relation to attitudes or self-efficacy expectations

Prevention was more often considered to be the responsibility of general practice in practices with fewer patients or with more assistance from practice nurses. Logistic regression analysis showed that only list size was related to responsibility. In practices with more practice assistance, GPs tended to feel more responsible for prevention, to see it as more feasible and acceptable, and to be more positive concerning self-efficacy. However, these relationships were not significant.

Table 3. Attitudes and self-efficacy expectations of general practitioners ($n = 182$).

Item	% GPs agree	% GPs neutral	% GPs disagree
Acceptability			
A patient aged between 30 and 60, who comes to the surgery to consult his GP about back complaints, will appreciate it when his blood pressure is also taken	61	29	10
The detection and treatment of patients at risk of CVD has a medicalizing effect	51	27	22
When a patient is asked to go to his GP for a general check-up, he will not regard this as meddling	61	28	11
The detection and treatment of hypertensive persons causes anxiety	19	30	51
Patients appreciate unasked-for monitoring of their health	59	32	9
Feasibility			
I have enough time and opportunities to perform those preventive activities that I should like to perform	32	24	44
In the average general practice, the necessary data to detect and screen groups that are at risk of CVD are lacking	49	25	26
The organization of the average general practice does not allow the setting up of preventive programmes	38	24	38
In the average general practice, the data necessary to detect and screen at-risk groups are lacking	50	23	27
Responsibility			
A GP who does not see patients who belong to a certain risk group regularly should still try to have a certain surveillance over them	58	27	15
A GP is responsible for a proper treatment of the complaints presented by the patients — not for diseases or problems they might also have but do not complain about	13	23	63
If GPs put more emphasis on the promotion of health and less on the treatment of disease, people would be much healthier	39	41	20
It is the GP's responsibility to convince people to stop smoking	50	23	28
In every practice, groups with an elevated risk of CVD should be screened periodically	44	35	21
Prevention of CVD is an important task of general practice	78	19	3
It is also a task of general practice to warn patients of excessive consumption of alcohol	67	19	14
GPs spend too much time on curing and too little on preventing disease	46	40	14
Self-efficacy			
A practice nurse can be an important support for people who want to stop smoking	65	25	10
I can contribute substantially to a healthier way of living for patients	45	41	14
A practice nurse can motivate patients to live more healthily	72	22	7
I can be an important support for people who want to stop smoking	82	13	4
I can motivate patients to live more healthily	70	26	3
I can motivate hypertensive people to follow advice on lifestyle	79	20	2
A practice nurse can motivate hypertensive people to follow advice on lifestyle	70	28	2

Discussion

Important barriers in the organization of services and concerning attitudes were detected. The study revealed that, with regard to eight out of 10 organizational aspects, more than half of the practices were poorly organized to provide preventive services. Only 2% of the practices registered activities systematically in a log book for self-assessment of progress. Most practices were probably more familiar with an individual approach to patients than with a population approach. Protocols were available in 5% of the practices. In many practices verbal agreements on task delegation existed; practice teams were probably not convinced of the extra value of putting them into written protocols. Many GPs had positive self-efficacy expectations, but fewer had positive opinions on feasibility, acceptability, and responsibility. GPs appear to be dragging their feet. Although 70% of them think that general practice is capable of realizing preventive behaviour in patients (self-efficacy), 50–70% doubt whether it is the responsibility of general practice to provide these services, whether it is, from the patient's viewpoint, acceptable to provide these services, and whether general practice has the proper practical means to carry out preventive activities (feasibility).

Few associations were found between the organization of preventive services and attitudes or self-efficacy expectations. They seem to be two separate, independent sets of barriers; even a positive attitude or self-efficacy expectation does not automatically coincide with a practice organization equipped for prevention. Moreover, few associations were found between practice and provider characteristics and barriers; however, list size played some role, as practices with a smaller list size experienced fewer barriers, maybe because they had more time available to cope with possible barriers.

The data were collected in practices that were invited to participate in a study to implement prevention of cardiovascular disease in general practice. Therefore, we may have selected unusually motivated practices. This implies that an even higher proportion of practices than our results show will experience barriers in providing preventive care.

With regard to both the organization of preventive services and attitudes, there is room for improvement. What steps can be taken to improve this situation? For at least 15 years, efforts have been made to improve the provision of preventive care. The emphasis is often on education, aiming at changing the knowledge and attitudes of GPs in order to change behaviour.²² The question is whether this is an effective approach. More recently, improving the organization of preventive services seems to have attracted increased attention from the researchers.^{8,10-15} In our study, even GPs with a positive attitude towards prevention do not seem to automatically adapt their practice organization to include preventive activities. Therefore, to improve the provision of preventive services, changing attitudes is probably not enough. Efforts have to be directed at the organization of services.

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