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Comparison of patients' preferences and evaluations regarding aspects of general practice care

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Background. Although patients' views on health care are perceived to be crucial, insight into the different constructs capturing these views remains limited.

Objective. The aim of this study was to determine the relationship between patients' preferences and their evaluations of general practice care.

Methods. Patients visiting five rural practices in The Netherlands were asked to complete a questionnaire measuring either their evaluations or their preferences on 44 aspects of general practice care. After at least 3 weeks, those patients who had answered the evaluation questionnaire received the questionnaire measuring their preferences, and vice versa.

Results. A total of 449 patients answered both questionnaires (response 70%). The longer the period after the consultation, the lower was the mean percentage of all 44 aspects rated as 'good' in the evaluation questionnaire ($P = 0.006$) and the higher was the mean percentage of all 44 aspects rated as 'very important' in the preference questionnaire ($P = 0.046$). The Spearman rank order correlation between the ranking of patients' evaluations and patients' preferences was 0.34, a low although significant correlation ($P = 0.024$), i.e. the two rank orders do not resemble each other very much.

Conclusions. Patients clearly distinguished their preferences from their evaluations of general practice care. Aspects of general practice care, whether important or not, can be evaluated positively or negatively. Patients' preferences and patients' evaluations are, however, both influenced by the length of the time elapsed since the consultation.

Keywords. General practice care, patients' evaluations, patients' preferences.

Introduction

It is usually assumed that both patients' preferences and patients' evaluations of general practice care should be measured to identify any quality problems. A poorly evaluated aspect of care that is not felt to be important might be a less serious quality problem than a moderately evaluated aspect that is of the utmost importance to patients. A comparison of patients' evaluations and patients' preferences is needed to determine the quality problems with the most priority.

While patients' views are considered highly important, insight into the different constructs to capture these views is limited. There is no clear evidence to show whether patients distinguish clearly between the concepts of *preference* and *evaluation*.[1,2] Attkisson and colleagues[3] assert that patients do not distinguish conceptually between preferences and evaluations. Preferences and evaluations may influence each other.[4] Patients' evaluations and preferences regarding specific aspects of care have been assumed to explain overall patient satisfaction,[5–10] but the empirical evidence shows that patients' preferences exert hardly any influence.[1,5–10] A main shortcoming of the studies surveyed was that patients' preferences and evaluations were measured simultaneously, often within the same questionnaire, which could have induced confounding of the measurements. A possible way of avoiding preferences and evaluations influencing each other would be to separate the measurement of preferences and evaluations in time. However, time—the moment of filling in the questionnaire—may have an independent effect on both preferences and evaluations.

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We performed a study to determine the relationship between patients' preferences and evaluations, and the influence of the moment of filling in the questionnaire. The research questions were:

(i) Do patients distinguish their preferences with regard to aspects of general practice care from their evaluations of those aspects?
(ii) For which aspects do these preferences differ with regard to general practice care and evaluations of this care?
(iii) Are patients' preferences and evaluations influenced by the length of the period elapsing since the consultation?

Methods

Sample

The study included a sample of 644 patients from five solo rural general practices in the eastern part of The Netherlands. The inclusion criteria for the patients were: age 16 years or above (in the case of children, the questionnaire was given to the accompanying parent), understanding of the Dutch language and no mental retardation. Each GP was instructed to give one of two different questionnaires alternately to 130 consecutive adult patients visiting their practices after a specific starting point. One questionnaire measured patients' evaluations of aspects of care, while the other measured patients' preferences with regard to these aspects. In all, 644 questionnaires were distributed in May 1997. The patients could complete their questionnaires at home and return them to the University of Nijmegen in a prepaid envelope. After 2 weeks, a reminder was sent. Five weeks after the handing out of the questionnaires, a second questionnaire was sent to those patients who had responded. The patients who had answered the evaluation questionnaire then received the questionnaire measuring their preferences, while the patients who had answered the questionnaire measuring their preferences received the evaluation questionnaire. Two weeks later, reminders were sent to those who had received the second questionnaire, but had not yet responded. To guarantee anonymity while at the same time enabling the sending out of reminders, the questionnaires were coded in such a way that the name and address of patients approached was known only to the employees of the practices, while the information revealed by these patients (including whether they had responded or not) was known only to the researchers of the university.

Measurement instruments

The following variables were measured: (i) patients' preferences with regard to certain aspects of general practice care and (ii) patients' evaluations of these aspects of general practice care. A systematic procedure was used to select items for the questionnaire to guarantee that the perspective of patients regarding general practice care was reflected adequately. The items were based on: (i) a qualitative study of the wishes and expectations of patients and GPs;[11] (ii) a systematic review of the literature and an analysis of 57 studies examining the priorities of patients in primary health care;[12] and (iii) an empirical study of the priorities of patients.[13] A preliminary list of 103 aspects of general practice care was selected from these sources. In two consensus meetings of the European Task Force for Patient Evaluation of General Practice (EUROPEP) which includes researchers from eight countries, the preliminary list was reduced to 44 aspects of care grouped according to five dimensions: (i) doctor–patient relationship (eight items); (ii) medical–technical care (nine items); (iii) information and support (11 items); (iv) organization of care (10 items); and (v) co-ordination of care (six items).

The patients were asked to score 44 aspects of general practice care on a 5-point Likert scale in each of the two questionnaires. In one questionnaire, they were asked explicitly to evaluate the care provided within the past 12 months. The anchors for the scale were 1 'poor' to 5 'good'. In the other questionnaire, patients were asked to rate their preferences with regard to these 44 aspects. The anchors for this scale were 1 'not important' to 5 'very important'.

Analyses

To investigate whether the order in which patients received each questionnaire was relevant, the evaluation questionnaires which had been completed before the questionnaires on perceived importance were received were compared by means of *t*-tests with the evaluation questionnaires received after the questionnaire on perceived importance had been completed. The questionnaires on perceived importance were analysed in the same way.

The rank order of the 44 aspects of general practice care ranked according to preferences and the rank order of the evaluations were then compared using Spearman rank order correlations. The correlations were based on the comparison of the rank order of items according to the percentage of respondents assessing an evaluation item with a score of 5 ('good') with the percentage of respondents assessing a preference item with a score of 5 ('very important'), both on the 5-point Likert scale. Differences between the percentages of patients evaluating an aspect as 'good' and rating this aspect as 'very important' were tested by means of *t*-tests. To correct for chance capitalization resulting from multiple testing (multiple significance), a critical significance level of $P = 0.05/44 = 0.001$ was chosen for the comparison of the 44 aspects of care (Bonferroni method[14]). In the other comparisons, a significance level of 0.05 was chosen.

Results

Sample characteristics

Of the 644 patients receiving the first questionnaire, 528 returned them: a response rate of 82%. These 528 patients received a second questionnaire, 449 of which were returned (response rate 85%). Overall, 449 of 644 returned both questionnaires, a response rate of 70%. No significant differences in age or gender were found when the respondents were compared with the total sample (Table 1). However, non-respondents included more males than the respondents and non-respondents were younger than the respondents and the total sample. No national figures of patients visiting general practice were available for comparison but, when compared with a national study on patients' evaluations, the respondents in our study were seen to have had a somewhat lower level of education.[15]

Influence of length of period since consultation

The mean percentage of all 44 aspects rated as 'very important' in the preference questionnaires was higher when more time had elapsed since the consultation. However, the mean percentage of all 44 aspects rated as 'good' in the evaluation questionnaires was lower when more time had passed since the consultation (Table 2).

Comparison of preferences and evaluations

The Spearman rank order correlation between patients' evaluations and patients' preferences was 0.34. In other words, the two rank orders do not resemble each other very much. For instance, three of the six aspects evaluated most positively were ranked in the quartile of least important aspects, while three of the six aspects evaluated least positively were ranked in the two quartiles of most important aspects (Table 3).

Detailed analysis of aspects of care

The results of the rank order ('1' highest rank, '44' lowest rank) were plotted on a graph, with one axis running from 'important' to 'less important' and the other from 'good' to 'poor' (Fig. 1). The position of each aspect of care accords with its ranked preference and evaluation. The axes divide these aspects into four quadrants.

One quadrant represents those aspects of care which patients evaluated positively and found important. Almost all these aspects relate to the doctor–patient relationship and the supply of information: 'keeping data

TABLE 1 *Characteristics of the patient sample (absolute numbers, valid percentages in parentheses)*

	Respondents $n = 449$	Total sample $n = 644$	Non-respondents $n = 195$
Gender			
Male	154 (34)	255 (40)	85 (44)*
Female	295 (66)	387 (60)	110 (56)
Age			
16–25 years	34 (8)	67 (10)	42 (22)**
26–35 years	91 (20)	116 (18)	45 (23)
36–45 years	100 (22)	145 (23)	39 (20)
46–55 years	94 (21)	130 (20)	33 (17)
56–65 years	75 (17)	90 (14)	15 (8)
66–75 years	45 (10)	70 (11)	12 (6)
>75 years	10 (2)	25 (4)	9 (5)
Level of education			
Low	249 (56)		
Medium	105 (23)		
High	95 (21)		
Health status			
Excellent	48 (11)		
Very good	57 (13)		
Good	204 (47)		
Moderate	121 (28)		
Poor	6 (1)		
Times seen by GP previous year			
Mean	6.0		
Minimum	1		
Maximum	66		

* Chi-square test significance $P < 0.05$ only for non-respondents compared with respondents; ** chi-square test significance $P < 0.001$ for non-respondents compared with respondents and with total sample.

TABLE 2 *Mean scores of preference and evaluation questionnaires in relation to the moment they were completed*

T_0 Handing out of questionnaire in the consultation	T_1 Response within 5 weeks of consultation[a]	T_2 Response within 5–10 weeks of consultation[a]	Significance
Preference questionnaire	58.3	65.0	$P < 0.046$
	$n = 336$	$n = 113$	
Evaluation questionnaire	72.1	62.9	$P < 0.006$
	$n = 113$	$n = 336$	

[a] Mean valid percentages of 44 aspects of general practice care rated as 'very important' in the preference questionnaire or as 'good' in the evaluation questionnaire.

TABLE 3 *Patients' preferences and evaluations regarding 44 aspects of care (*n = *449, rank order, valid percentages in parentheses)*

Aspects of general practice care	Importance % very important	Evaluations % good
1 The respect shown to you as a person	21 (63.4)*	1 (83.5)
2 Travelling to the practice	37 (46.4)*	2 (80.8)
3 Seeing same GP at each visit	34 (48.4)*	3 (79.9)
4 Keeping your data and records confidential	5 (80.0)	4 (79.0)
5 Helpfulness of staff (other than the doctor)	42 (40.4)*	5 (77.9)
6 Access to the building	33 (48.5)*	6 (76.6)
7 Explaining things to you	8 (76.5)	7 (73.5)
8 Listening to you	3 (81.2)	8 (73.4)
9 Involving you in decisions about medical care	10 (72.3)	9 (73.1)
10 Providing quick service for urgent health problems	1 (84.5)*	10 (72.9)
11 Explaining purpose of tests and treatments	19 (64.6)	11 (72.7)
12 Opportunities to ask questions about problems	16 (68.1)	12 (72.3)
13 Making you feel you had time during consultations	4 (80.9)	13 (72.0)
14 Willingness to make home visits	23 (56.9)*	14 (71.5)
15 Ordering tests (e.g. blood test, X-ray, etc.)	6 (79.0)	15 (70.8)
16 Offering preventive services (e.g. health checks)	24 (54.7)*	16 (70.5)
17 Deciding about your medication	7 (78.5)	17 (70.0)
18 Physical examination	9 (73.2)	18 (69.1)
19 Explaining results of tests (e.g. blood test, X-ray)	15 (68.5)	19 (69.1)
20 Discussing referral (to specialist) with you	20 (63.7)	20 (69.0)
21 Telling you what you wanted to know about your symptoms	17 (67.1)	21 (68.2)
22 Co-operation with other practice staff (not doctors)	30 (50.0)*	22 (67.5)
23 Instructing you how to take your medicines correctly	29 (51.5)*	23 (66.7)
24 Interest in your personal situation	25 (54.4)*	24 (66.5)
25 The facilities at the practice	38 (44.9)*	25 (65.7)
26 Referring you (to a specialist or hospital)	2 (83.2)*	26 (65.2)
27 Helping understand importance of following advice	28 (52.9)*	27 (65.1)
28 Thoroughness	18 (65.6)	28 (64.6)
29 Make it easy for you to talk about your problems	14 (69.1)	29 (63.6)
30 Help with your health problems	13 (70.0)	30 (61.2)
31 Help to perform your normal daily activities	36 (46.8)*	31 (60.9)
32 Help with emotional problems related to your health	27 (53.6)	32 (59.7)
33 Knowing what GP had done/told previous contacts	31 (49.9)	33 (58.8)
34 Discuss how your symptoms affect your daily life	33 (49.0)	34 (57.6)
35 Quick relief of your symptoms	39 (44.8)*	35 (57.1)
36 Getting an appointment to suit you	43 (38.7)*	36 (55.2)
37 Preparing you what to expect from specialist/hospital	35 (47.0)	37 (54.5)
38 Knowing what other providers (not GPs) did/told you	40 (44.1)	38 (54.2)
39 Explaining what to do if you did not get better	11 (72.2)*	39 (53.4)
40 Co-ordination of care you received outside the practice	41 (41.4)	40 (52.6)
41 Knowing what another GP had done or told you	26 (54.4)	41 (50.0)
42 Getting through to the practice on the phone	12 (70.5)*	42 (45.4)
43 Waiting time in the waiting room	44 (29.9)*	43 (41.9)
44 Being able to speak to the GP on the telephone	22 (57.6)	44 (34.4)

* *t*-test significance $P < 0.001$, percentage of 'very important' ratings compared with percentage of 'good' evaluations

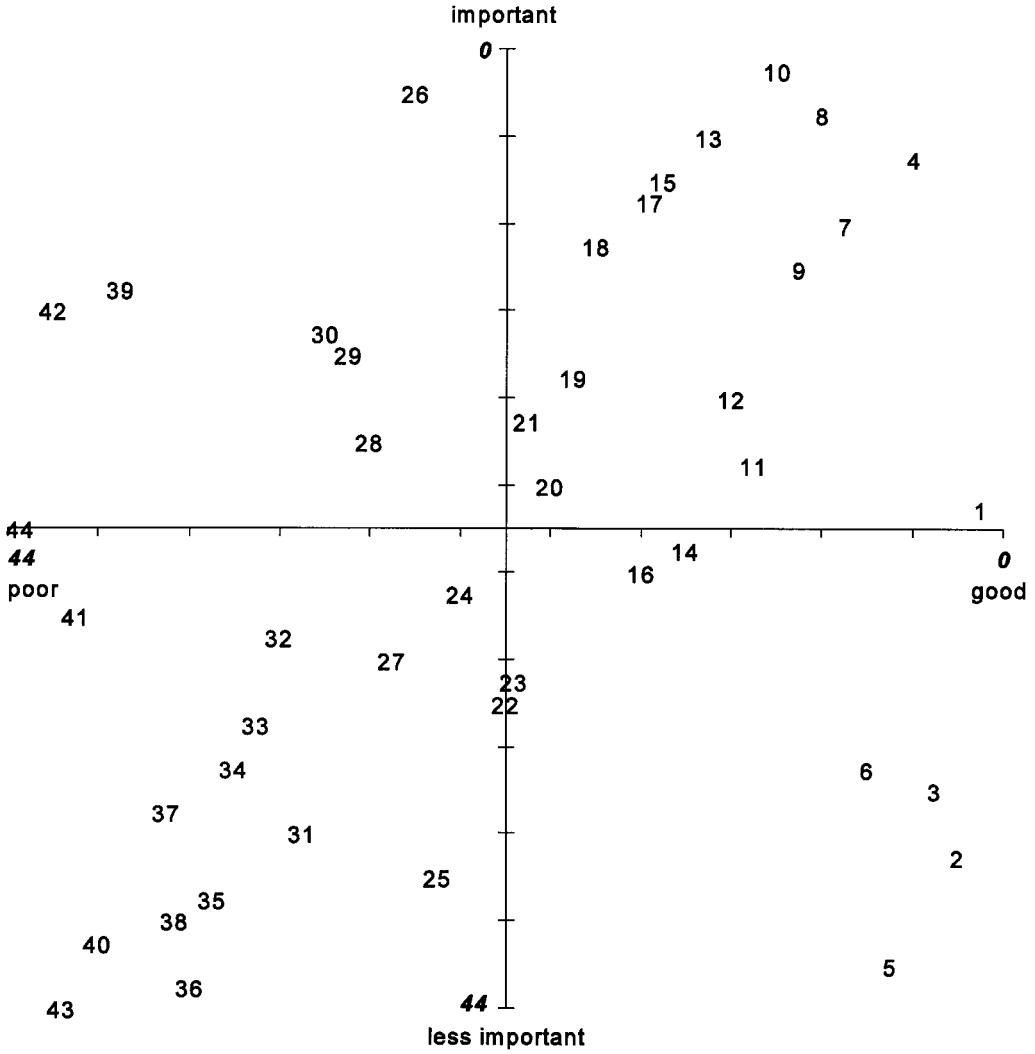

FIGURE 1 *Forty-four aspects of general practice care plotted on two axes according to preference and evaluation rank order*

and records confidential', 'explaining things to you', 'listening to you', 'involving you in decisions about medical care', 'explaining the purpose of tests and treatments', 'opportunities to ask questions' and 'make you feel you had time during consultations'.

Another quadrant represents those aspects which patients evaluated less positively and found less important. Most of these aspects relate to the co-ordination of general practice care: 'knowing what another GP had done or told you', 'co-ordination of care you received outside the practice', 'knowing what other providers (not GPs) did/told you', 'preparing you for what to expect from specialist/hospital' and 'knowing what a GP had done/told you on previous contacts'.

The next quadrant represents those aspects which patients evaluated positively, but which they found less important. Most of these aspects relate to the organization of care: 'access to the building', 'travelling to the practice', 'seeing the same GP at each visit' and 'helpfulness of staff (other than the doctor)'.

Finally, the fourth quadrant represents those aspects that were evaluated relatively negatively, but were considered important: 'referring you (to specialist or hospital)', 'explaining what to do if you did not get better', 'getting through to the practice on the phone', 'being able to speak to the GP on the telephone', 'help with your health problems', 'making it easy to tell them about your problems' and 'thoroughness'.

Discussion

Patients clearly distinguish their preferences from their evaluations regarding general practice care. Aspects of general practice care, whether very important or unimportant, may be evaluated positively or negatively. Aspects of the organization of general practice care could be evaluated very positively, although they were not considered very important or, on the other hand, could be evaluated poorly while they were considered

very important. Aspects related to the doctor–patient relationship were mostly found to be important and evaluated positively. Aspects related to the co-ordination of care were found to be less important and mostly evaluated less positively. Our conclusion is that patients' preferences and patients' evaluations are to a large extent autonomous and, if preferences and evaluations do influence each other, the effects are small.

The moment of filling in the questionnaires, however, seemed to influence both preferences and evaluations. Evaluations were significantly lower and preferences significantly higher when more time had elapsed between the consultation and the completion of the questionnaire.

It seems unlikely that the completion of the first questionnaire, whether on preferences or on evaluations, could be responsible for this effect on the evaluations or preferences of a second questionnaire, because we intentionally incorporated an interval of at least 3 weeks between the completion of each questionnaire in order to reduce this influence. One could argue that evaluations expressed immediately after a consultation might be influenced more by the fresh impressions of that particular consultation, while evaluations expressed some time after the consultations might be more of a mixture of respondents' own general experiences and the experience of others. Personal care experiences have been shown to be evaluated more positively than general care experiences.[7,16] Why should this be the case?

One explanation could be that patients' evaluations of care they have experienced themselves are enhanced, because the idea that the care one has received is not of the highest quality would be threatening.[17] (The theory of cognitive dissonance suggests this mechanism.) It is more difficult to understand why aspects of care are considered more important when more time has passed since the last consultation. This variation of patients' preferences with the passage of time has been encountered previously.[18] Perhaps there is some influence from the evaluations of patients' preferences which leads aspects evaluated less positively to become more important and when they are evaluated more positively to become less important. Thompson and Sunol[4] and Ross *et al*.[19] describe how psychological mechanisms could lead to preferences and evaluations influencing each other.

This study explored patients' evaluations and preferences in five solo rural general practices in one region of The Netherlands. It is, therefore, difficult to extrapolate these findings. However, 23 of the 44 items in this questionnaire were also used in a national study.[15] Comparing the rank order of the evaluations of these aspects yielded a high correlation (0.88 Spearman rank order), so the patients' evaluations in this study strongly resemble those in the national study. Furthermore, their preferences also resemble those found in a national study of patients' preferences.[20] The results of this comparison of patients' preferences and patients' evaluations would therefore seem to be generalizable.

If quality of care could be seen as a comparison of patients' evaluations of experienced actual care with the care that they preferred, then those aspects of care most important to patients and evaluated least positively would be the best candidates for quality improvement. In particular, 'getting through to the practice on the phone', 'explaining what to do if you are not getting better' and 'referring you (to a specialist or hospital)' are aspects requiring attention. Although it was evaluated quite positively, 'providing quick services for urgent health problems' might also be a candidate for quality improvement, because of its importance (first in rank order). Measuring and interpreting patients' preferences and evaluations in this way could be seen as a first step towards closing the gap between what patients want and what they get.

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