

Interpersonal continuity of care: a cross-sectional survey of primary care patients' preferences and their experiences

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ABSTRACT

Background

Developments in primary care may make the provision of interpersonal continuity more difficult.

Aim

To identify those patients who regard interpersonal continuity as important and determine what makes it difficult for them to obtain this.

Design of study

Cross sectional survey.

Setting

Twenty-two practices and a walk-in centre in West London and Leicestershire, UK.

Method

Administration of a questionnaire on preferences for and experiences of interpersonal and informational continuity. Interpersonal continuity was defined in three questions: choosing a particular person; choosing someone known and trusted; and choosing someone who knows the patient and medical condition.

Results

One thousand four hundred and thirty-seven (46.5%) patients responded. Consulting someone known and trusted was important to 766 (62.6%) responders, although 105 (13.7%) of these reported that they had not experienced it at their last consultation. Seven hundred and eighty-eight (65.2%) responders regarded being able to consult a particular person as important, but 168 (21.3%) of these were unable to. Being in work and consulting for a new problem were associated with failing to obtain interpersonal continuity. Ethnic group was associated with failing to see someone with time to listen when this was preferred.

Conclusion

In view of the response rate, which was particularly low among young males, some caution is required in applying the findings. Most patients experience the aspects of care important to them, although interpersonal continuity is important to many and certain groups find difficulty in obtaining it. Practices should have flexible appointment systems to account for the difficulties some patients have in negotiating for the type of care they want.

Keywords

access to health care; continuity of patient care; interpersonal relations; patient preferences.

INTRODUCTION

Continuity continues to be described as a core value in primary health care, although reforms to improve access and extend services available outside hospitals may have impaired the ability of primary care to provide it.¹⁻³ For example, the British Social Attitude Survey reported an increase in the proportion of people stating that improvement was needed in the choice of GP to consult, from 27% in 1999 to 38% in 2001.⁴ Government has acknowledged that people with a long-term condition value seeing someone they know and trust, and is planning policies to promote continuity.⁵

Definitions of the types of continuity have recently been developed. Informational continuity has been defined as the use of information on past events and personal circumstances to make current care appropriate for the individual; management continuity as consistent management by several providers; and relational continuity as an ongoing therapeutic relationship between a patient and one or more providers.⁶ In another formulation, informational continuity is retained but the other types are longitudinal continuity (ongoing healthcare interactions occurring with the same professionals),

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Submitted: 8 March 2006; Editor's response: 3 August 2006; final acceptance: 1 November 2006.

©British Journal of General Practice 2007; 57: 283-290.

How this fits in

Patients vary in the importance they place on the types of continuity and many are prepared to trade-off other features of primary care to get the type they want. In this study, interpersonal continuity was important to between 63 and 75% of patients, particularly those with poor health consulting with routine problems. Patients in work had difficulty in obtaining interpersonal continuity. Practices should operate flexible appointment systems taking account of the needs of people in work, and those who have difficulty in negotiating for what they want.

and interpersonal continuity (longitudinal continuity characterised by personal trust and responsibility).⁷ The focus of this paper is primarily on interpersonal continuity.

The importance of different types of continuity to patients and carers was investigated in a programme of research that included qualitative interviews and longitudinal⁸ studies and a discrete choice experiment.^{9,10} These and other^{11,12} studies show that patients vary in the importance they place on the types of continuity and that many are prepared to trade-off other features of primary care to obtain the type they want. In this paper a cross-sectional study was undertaken to identify the context and circumstances in which various types of continuity are preferred, and the factors associated with failure to obtain them.

METHOD

Patients

The study was conducted in Leicestershire and West London, locations with ethnically and socioeconomically diverse populations, varied local services, and rural as well as inner city settings. Patients were identified through the lists of 22 practices (nine in London, 13 in Leicestershire) selected to ensure diversity from those expressing interest in participation following a letter of invitation to all practices in Leicestershire and Kensington and Chelsea. Practices were asked to draw a random sample of 50–250 people aged 18–80 years

according to practice size, and stratified into four age groups (18–29, 30–54, 55–74, and ≥75 years), since healthcare needs tend to vary according to age. Practices posted the questionnaires with a covering letter signed by a doctor, with reminders sent to patients after 2 and 4 weeks. Questionnaires were also issued to consecutive patients of the Leicestershire walk-in centre. A sample size was calculated to ensure, within each of four age groups, 95% confidence intervals for prevalence estimates of +/-5%. This required 400 responders from each group.

The following information was collected about participating practices by interviewing practice managers: number of registered patients; appointment system; proportion of consultations delivered by nurses; practice culture relating to information sharing and teamwork;¹³ and practices' attitude towards continuity of care. The practice Index of Material Deprivation (IMD) 2004 score was used to indicate socioeconomic deprivation, a higher score indicating greater deprivation (mean score for areas in England 21.7).¹⁴

The questionnaire

The 31-item questionnaire included questions on age; sex; ethnic group;¹⁵ employment; education; carer status; time registered with the practice; services used in the past year (GP, nurse, out-of-hours, accident and emergency, walk-in centre, NHS Direct and pharmacist); their most recent consultation (who with; the service consulted, reason either new, routine/review of long-term condition, or other such as health promotion); social support and social integration (feeling part of the area lived in and contact with friends or family in the last 2 weeks^{16,17}); presence of long-term illness; and EuroQol (EQ-5D, low score indicates worse health).¹⁸ Questions were asked about nine aspects of care with respect to responders' most recent consultation:

- three on elements of interpersonal continuity — choosing a particular person, choosing someone known and trusted, and choosing someone who knows personally the patient and medical condition;
- one on being able to book an appointment in advance;
- four on the person consulted — type of professional (for example choosing a nurse or a doctor), someone of the same sex, someone of the same ethnic group or culture, someone who would take time to listen; and
- one on informational continuity — someone with paper or computer notes containing the full medical history of the patient.

Table 1. Characteristics of practices.

Practices	Mean	SD	Range
List size	10 488	7508	1764–33 000
Numbers of partners			
Full-time	5.6	4.1	1–18
Part-time	1.5	1.2	0–4
Other	1.8	1.6	0–5
Proportion of appointments with nurses (%)			
IMD 2004 score	23.3	14.0	4.4–56.6

SD = standard deviation. IMD = index of material deprivation

For each question, the responder was asked to indicate importance (four-point option format, extremely important to not important), then whether they had actually received that aspect of care (yes/no response). They were also asked when they had wanted their consultation and when it had actually taken place.

Analysis

The categories for importance of the nine aspects of primary care were collapsed into two groups (extremely important and important, and slightly important and not important), and combined with the second element to produce three possible responses: the aspect of care was not important; important and experienced; or important but not experienced.

Bayesian Markov chain Monte Carlo methods were used because of problems estimating models using traditional logistic regression with sparse data in some cells. Models containing random effects for practices were fitted to allow for clustering. Following initial univariable analysis, potential explanatory variables were included in two-level multilevel logistic models (level one the patient, level two the practice), which were fitted to the data for each dependent variable separately using MLWin 2.01. Seventeen binary variables were investigated, nine relating to whether the responder wanted that aspect of care, and eight to whether the responder who wanted the aspect of care did or did not receive it. Each independent variable was entered into a univariable model as a predictor for each dependent variable. Only significant predictors from these univariable models (using parameter estimates together with 95% Bayesian credible intervals to determine significance)¹⁹ were then entered into further models, in the process of implementing forward selection for each dependent variable separately. The final model in each case contained only effects significant at the 5% level. Given the number of hypotheses being tested the probability of type I errors is likely to be high, but since the study was exploratory rather than strictly hypothesis-testing no adjustment was made for the large number of tests. Modelling was undertaken using Monte Carlo methods, although starting values were derived using Marginal Quasi-likelihood methods, after which the Monte Carlo method was implemented to derive the estimates, their standard errors and Bayesian 95% credible intervals. The Bayesian approach constructs a credible interval, centred close to the sample mean, but affected by prior beliefs concerning the mean. There is a 95% probability that this interval contains the true mean. Monte Carlo methods allow Bayesian models to be

Table 2. Characteristics of responders.

Characteristic	<i>n</i>
Number of consultations in past year (median and IQR)	3.0 (2.0–6.0)
Lives alone	319
Who last consultation was for	
Self	1218
Someone else	168
Carer	
Yes	340
No	1037
Social isolation	
Highly isolated	139
Not isolated	1249
Limiting illness	
Yes	344
No	1031
Location	
Leicestershire	885
London	551
Educational level	
Degree level	533
Beyond minimum leaving age	293
Up to minimum leaving age	561
Reason for consultation	
New problem	621
Review of long-term problem	524
Other reasons	125
Occupation	
In work	700
Retired	483
Unemployed	239
Ethnic group	
White	1239
South Asian	56
Black	23
Other	59
Who consulted	
GP in a practice	1077
Nurse in a practice	137
Other	84
Age group in years by sex	
18–29	
Male	46
Female	115
30–54	
Male	191
Female	329
55–74	
Male	180
Female	249
≥75	
Male	128
Female	121
EQ–5D by age group in years, mean (95% CI)	
18–29	0.93 (0.91 to 0.95)
30–54	0.87 (0.85 to 0.89)
55–74	0.78 (0.75 to 0.81)
≥75	0.68 (0.64 to 0.72)

IQR = interquartile range.

Table 3. Importance attached to features of care and whether these features were experienced n(%).

	Not important	Important and experienced	Important but not experienced	Total
Booking an appointment in advance	308 (25.8)	720 (60.3)	166 (13.9)	1194
Information on full medical history	167 (13.0)	986 (76.5)	136 (10.6)	1289
Someone who would take time to listen	118 (9.5)	1072 (86.0)	57 (4.6)	1247
Choosing type of professional	258 (21.3)	925 (76.3)	29 (2.4)	1212
Someone who knows the patient and medical condition personally	297 (24.7)	752 (62.5)	154 (12.8)	1203
Choosing a particular person	421 (34.8)	620 (51.3)	168 (13.9)	1209
Someone already known and trusted	457 (37.4)	661 (54.0)	105 (8.6)	1223
Someone of own sex	1029 (87.4)	124 (10.5)	24 (2.0)	1177
Consulting someone of own ethnic group or culture	1056 (92.9)	66 (5.8)	15 (1.3)	1137

fitted with prior parameter distributions. By default MLwiN sets vague priors, and these were the priors (γ , $\alpha = 0.001$, $\beta = 0.001$) used in the current set of analyses.

Each model was run for at least 50 000 iterations. For each dependent variable intercepts and slopes were allowed to vary randomly. After final models had been chosen, the results were checked by re-fitting each model twice, with no random effects and with random intercepts only. The Bayesian deviance information criterion was used to decide which of the resulting models was best, the model having the smallest criterion being considered superior. The criterion takes into account how well the model fits the data and also the complexity (parsimony) of the model.

Table 4. Preferences for day of consultation and whether the preference was met n (%).

When the consultation was wanted	When the consultation actually occurred						Total
	Same day	2 days	4 days	1 week	10 days	≥10 days	
Same day	472 (82.4)	63 (11.0)	23 (4.0)	10 (1.7)	5 (0.9)	0	573
2 days	32 (8.7)	262 (71.0)	39 (10.6)	22 (6.0)	8 (2.2)	6 (1.6)	369
4 days	10 (9.3)	19 (17.6)	58 (53.7)	15 (13.9)	3 (2.8)	3 (2.8)	108
1 week	6 (3.5)	18 (10.4)	25 (14.5)	108 (62.4)	9 (5.2)	7 (4.0)	173
10 days	2 (5.0)	2 (5.0)	3 (7.5)	4 (10.0)	24 (60.0)	5 (12.5)	40
≥10 days	2 (7.7)	0	0	1 (3.8)	3 (11.5)	20 (76.9)	26
	524 (40.7)	364 (28.2)	148 (11.5)	160 (12.4)	52 (4.0)	41 (3.2)	1289

RESULTS

Five practices described themselves as inner-city, 13 practices and the walk-in centre as urban, and three as rural. Four were in localities with no other local services, nine with some local services, and eight (and the walk-in centre) in areas with many alternative local services. Thirteen were training practices and 11 reported having a personal list system. Two rated the value of personal continuity as 2, nine as 3, seven as 4 and three as 5, on a scale of 1 (not important at all) to 5 (extremely important). One practice had an open-appointment system, 12 had a mix of same-day and advanced-booked appointments, four had advanced access with some pre-booking, and three had same-day appointments only (Table 1). In total, 1437 completed questionnaires were received from 3091 sent (46.5%), including 36 walk-in centre patients. The mean practice response rate was 45.8% (standard deviation [SD] = 8.5%, range = 30.6 to 65.3%). Non-responders were more likely to be younger and male (Table 2).

Around two-thirds of responders regarded seeing a particular person, seeing someone they knew and trusted, or someone who knows personally about them and their medical conditions (interpersonal continuity) as important (Table 3). Large majorities regarded seeing someone who would take time to listen and someone with information on their clinical history (informational continuity) as important, and around three-quarters of responders regarded being able to book in advance and choosing the type of professional as important. For each aspect of care investigated, more than 86% of responders either had not regarded the attribute as important or had experienced it. However, of the 788 patients who wanted to see a particular person, 168 (21.3%) had not. Of those wanting an appointment on the same day, 82.4% reported having their preference met, but lower proportions had their preferences met among those who wanted to book in advance (Table 4).

With respect to interpersonal continuity (Table 5), factors associated with wanting to see a particular person were a lower EQ5D score, consulting with a routine rather than new problem, and being in a non-white ethnic group. Factors associated with wanting to see someone known and trusted were lower EQ5D score, being female, and being non-white. Factors associated with wanting to see someone who knew personally about the patient and their medical condition were consulting with a routine rather than new problem, being retired rather than in work, and a lower EQ5D score.

Those who wanted to consult someone they knew and trusted were more likely to do so if consulting with routine rather than new problems, and if retired

rather than in work (Table 6). Factors associated with being able to see someone known personally were being retired rather than in work or not in work for any reason other than retirement. Of those who wanted to see someone with information about them, the retired and those with a long-term condition were most likely to report achieving this. Factors associated with being able to see someone who would take time to listen were being white, and being retired rather than in work. Less socially isolated responders were more likely to be able to see someone of the same sex. If responders had a preference for the type of professional to consult, those consulting a GP were more likely to report seeing the preferred type of professional. Thus, those consulting a professional other than a GP (in most cases a nurse) were less likely to have their preference met, if they did have a preference.

DISCUSSION

Summary of main findings

Most patients experienced the aspects of care they regarded as important, and this may be interpreted as a success for general practice, but nevertheless obtaining interpersonal continuity was difficult for some patients who wanted it. Seeing someone known and trusted was important to 62.6% of responders, seeing a particular person important to 65.2% responders and seeing someone who knows the patient and medical condition personally was important to 75.3% responders. Of those who regarded these features of interpersonal continuity as important, 13.7, 21.3 and 17.0%, respectively, failed to experience them. The majority of patients also wanted to consult someone perceived as taking time to listen and with information about their clinical history (informational continuity), and most (but not all) experienced these attributes of care at their most recent consultation.

Groups that were more likely to fail to get what they wanted were people in work (seeing someone with information, someone with time to listen, someone known and trusted, someone who knows the patient and condition), being non-white (someone with time to listen) and being socially isolated (someone of the same sex). Thus, people in work and people who are not in work for any reason other than retirement have more difficulty experiencing informational and interpersonal continuity than people who are retired, while non-white ethnic groups and people who are socially isolated have difficulty negotiating other desired aspects of care.

Strengths and limitations of the study

The response rate was similar to the response rate of

Table 5. Factors explaining preferences for particular aspects of primary care at the last consultation.

	OR	95% CI
Someone who knows the patient and medical condition personally (<i>n</i> = 626)		
EQ-5D	0.068	(0.008 to 0.387)
Work		
Retired versus in work	2.980	(1.326 to 7.272)
Reason for consultation		
Routine versus new	2.697	(1.358 to 5.518)
Someone already known and trusted (<i>n</i> = 632)		
EQ-5D	0.022	(0.005 to 0.091)
Sex		
Female versus male	1.935	(1.115 to 3.340)
Ethnic group		
Non-white versus white	2.855	(1.168 to 7.854)
Choosing a particular person (<i>n</i> = 637)		
Ethnic group		
Non-white versus white	3.333	(1.247 to 10.687)
Reason for consultation		
Routine versus new	2.474	(1.359 to 4.618)
EQ-5D	0.079	(0.021 to 0.266)
Someone with information on full medical history (<i>n</i> = 672)		
Reason for consultation		
New versus routine	6.050	(2.479 to 16.593)
New versus other reasons	3.819	(1.156 to 16.167)
Work		
In work versus retired	3.557	(1.217 to 12.718)
Who consulted		
Other versus GP	3.876	(1.939 to 9.524)
Someone who would take time to listen (<i>n</i> = 646)		
EQ-5D	0.021	(0.013 to 0.217)
Choosing type of professional (<i>n</i> = 662)		
Reason for consultation		
Other versus new	2.941	(1.209 to 7.143)
Other versus routine	2.857	(1.159 to 6.849)
Someone of own sex (<i>n</i> = 610)		
Sex		
Female versus male	2.542	(1.197 to 5.635)
Ethnic group		
Non-white versus white	2.672	(1.030 to 6.360)
Consulting someone of own ethnic group or culture (<i>n</i> = 610)		
In work versus retired	3.568	(1.289 to 10.094)

OR = odds ratio. EQ5D = CI = credible interval.

47% for the 2005 national patient survey, in which rates varied from 23 to 61% between primary care trusts.²⁰ A wide range of patients, including those from different ethnic and socioeconomically disadvantaged groups, were incorporated into the study and in future surveys researchers may have to choose between achieving high response rates from relatively homogenous advantaged populations or lower rates from more diverse populations. In the 2005 national survey, 5% of responders were non-white, but in this study the proportion was 10%. Particular caution is needed, however, in interpreting

Table 6. Factors explaining whether those who wanted a particular aspect of care at their last consultation received it.

	OR	95% CI
Someone who knows the patient and medical condition personally (n = 455)		
Work		
Retired versus in work	12.048	(4.082 to 50.000)
Retired versus other	4.371	(1.025 to 16.912)
Someone already known and trusted (n = 448)		
Work		
Retired versus in work	8.065	(2.323 to 37.037)
Reason for consultation		
Routine versus new	2.857	(1.067 to 8.333)
Someone with information on full medical history (n = 581)		
Work		
Retired versus in work	7.634	(1.733 to 52.631)
Retired versus other	10.237	(2.428 to 49.600)
Limiting condition		
Some versus none	4.115	(1.079 to 28.57)
Someone who would take time to listen (n = 593)		
Ethnic group		
White versus non-white	5.073	(1.442 to 17.219)
Work		
Retired versus in work	10.989	(1.493 to 250)
Choosing type of professional (n = 547)		
Who consulted		
GP versus other	225.9	(18.338 to 14045)
Someone of the same sex (n = 73)		
Socially isolated		
Low versus high	9.434	(1.342 to 71.43)

OR = odds ratio. CI = credible interval.

the findings in relation to the younger age group, who are less likely to have chronic illness and likely to place higher priority on access than continuity. This survey did not involve a national random sample, and the direct extrapolation of the findings to the national population would be inappropriate.

Although this study relies on self-reports about one consultation in the context of continuing relationships, it was informed by the qualitative and longitudinal studies that had preceded it, and which enabled the utilisation of a detailed appreciation of the issues important to patients.⁸ Furthermore, continuity was classified into interpersonal and informational, and contrasted with other key attributes of primary health care. However, information about practices was reliant on the perceptions of one member of the practice team.

Comparison with existing literature

These findings support the findings of the qualitative¹⁰ and longitudinal⁸ studies in highlighting the role of the patient in contributing to the level of continuity they obtain. Patients with new, minor

problems tend to prioritise speedy access before interpersonal continuity, and often also before informational continuity. Patients with long-term or more complex problems place greater weight on informational and interpersonal continuity, the other attributes of the service giving way to the preference for an established relationship.^{11,12,21}

In general, retired people had least difficulty in negotiating their wants, perhaps because they have fewest personal time constraints. People who are not in work but not retired, or in a non-white ethnic group, or who have a degree of social isolation tend to have greater difficulty in obtaining what they want. The way in which practices and local health services operate appears to discriminate against these disadvantaged groups. It could be that they have too many conflicting priorities or are less skilled at negotiating their preferred appointments.

Implications for research and clinical practice

While it is good to find that so many responders achieved the interpersonal continuity they wanted, there is still room for improvement for others. Service providers must attend to the needs of disadvantaged groups and take steps to help them obtain the primary care they prefer, particularly from someone they know and trust. Such steps should involve minimising the complexity of service design and operating flexible appointment systems that include the option of booking appointments in advance, as proposed in the recent government white paper's.³ Better training for receptionists in sensitivity to the needs of people who have difficulty in negotiating their preferences for interpersonal continuity is another way forward.

Funding body

The study was funded by the NHS Service Delivery and Organisation National R&D Programme (SDO/13b/2001)

Ethics committee

The study was approved by the Leicestershire Local Research Ethics (LREC 6443) and Riverside Research Ethics Committees (RREC 2833 and RREC 3747)

Competing interests

The authors have stated that there are none

Acknowledgements

We acknowledge with thanks the assistance of Janet Low, Janet Vaux, Liu Yang and Eileen Hutton with aspects of the study. We also thank all the patients who completed questionnaires, and the practices and walk in centre that took part.

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