Patients’ assessments of the continuity of primary care in Finland: a 15-year follow-up questionnaire survey

INTRODUCTION
Continuity of care is an essential aspect of good-quality primary care, as is involving patients in assessing, developing, and improving it.4–7,14 The primary care profession must constantly aim to maintain this. Various attempts have been made to establish a consensus on continuity of practice as a basis for valid and reliable assessment of primary care in different healthcare settings and dimensions.4–6,9 Continuity of care can be assessed by the general population, the users (patients), or the providers (professionals or organisations), and is related to other healthcare dimensions and outcomes.

Continuity of care constitutes an indicator of quality in general practice.4 There are a number of studies and articles on the criteria for indicators and instruments used in assessing continuity of care, including literature focusing on measurement of patients’ views of primary care.4,7–14 Patients place great value on the ability to see the same doctor,11 Hjortdahl and Laerum11 showed that the personal continuity of care is positively linked to patients’ overall satisfaction. Other studies have, likewise, found strong evidence of the correlation between continuity of care and improved patient satisfaction.7,17,38 A review by Starfield et al19 emphasises that continuity of care is one core dimension in a robust primary care system; they also found continuity of care to be cost effective and promotive of greater efficiency of services. Kringos et al8 have assessed the relevance of continuity of primary care in relation to other primary care dimensions and healthcare system outcomes; in their review of the literature, they found associations with coordination, comprehensiveness, quality, efficiency, population health, patient satisfaction, costs, and strength of primary care.

For the GP, continuity of care:

• strengthens the doctor–patient relationship and the sense of partnership in care;
• improves diagnostic and communication skills;
• enhances trust and empathy;4,5 and
• improves the coordination and integration of care.12

According to the European Definition of General Practice/Family Medicine, a GP is responsible for the provision of longitudinal continuity of care, as determined by the needs of the patient.20 Moreover, the significance of continuity challenges GPs to develop teamwork with other professionals in their practices to engage them in promoting and improving the health of their patients.21 Patients are increasingly perceived as clients in healthcare services and experts in their own care and, as such, GPs must make
How this fits in

There is extensive literature on the benefits of continuity of care for patients, professionals, authorities, and healthcare systems. The personal continuity of consultations in primary care in Finland is decreasing; this is a matter of concern. This study shows that having a specific named doctor generates continuity and patients experience better quality healthcare as a result.

FD additional efforts to recognise patients who are chronically ill as partners in care. Both GPs and their patients seem to realise the value of maintaining a good doctor–patient relationship. Furthermore, patients describe consistent relationships in primary care as a reassuring, positive, and secure partnership.

Despite many positive findings in this dimension of general practice, there is ongoing debate as to whether, and to whom, the continuity of care really matters. There is variation between different patient groups and primary healthcare organisations regarding the level of satisfaction with continuity of care. Patients using primary care services are generally fairly satisfied in this respect.

Finnish healthcare services offer universal coverage for a comprehensive range of care, which is delivered primarily by organisations that are publicly owned and operated; primary healthcare services are provided mainly by municipal health centres that are publicly funded. The Finnish primary healthcare system is health centre-oriented and wide, both in terms of the numbers of staff and the different professions employed. The actual size and population of primary care health centres varies considerably but staff work mostly in pairs or teams, and the distribution of tasks from doctors to nurses is common. Practice nurses who assess the need and urgency of care are almost invariably patients’ first contacts, either on the telephone or face to face.

Only about half of health centres have a personal list system, with all patients allocated to a named family doctor. In addition, free occupational health services also play an important role in Finnish healthcare by providing primary care to the employed population. In Finland, patients can choose to consult a doctor either in a health centre or in occupational health. They are also able to choose a private doctor, for which they will have to pay extra. In the past 10 years, the authorities in Finland have sought to improve the quality of primary healthcare, increase its resources and integration of care, and emphasise patients’ roles in their own care.

To the authors’ knowledge, prior to this investigation, there have been no systematic longitudinal studies measuring continuity of care in Finland. The aim of this study was to ascertain:

- how personal, longitudinal continuity of care is related to certain patient characteristics; and
- what were patients’ experiences of consultations with doctors working in Finnish primary care centres.

How the patient-reported, personal, continuity of health-centre doctors had changed over the study period was also examined.

**METHOD**

**Design**

The Department of General Practice at the University of Tampere sent a questionnaire to 65 primary healthcare centres in 1998, 1999, 2000, 2001, 2003, 2005, 2007, 2009, 2011, and 2013. Every year, the questionnaire was extended to primary healthcare centres located in the catchment area of Tampere University Hospital. There were 65 health centres in this area, serving a total population of 1.2 million. Data were collected during week 39, in September. Reception staff distributed the questionnaire to patients visiting physicians and nurses due to illness from Monday to Friday between 8am and 4pm.

Patients placed the anonymously filled questionnaires in a box in the waiting room after their consultation. During the data-collection periods, 363 464 patients visited the practices, and 157 549 responded. The response rate varied yearly from 39% to 53%. The answers of patients who had visited a doctor during the survey weeks were then analysed.

Patients were asked for their background information, including:
Table 1. Responders who visited a doctor in health centres, by study year

| Year | Patients, n |
|------|-------------|
| 1998 | 6377        |
| 1999 | 17 132      |
| 2000 | 14 887      |
| 2001 | 10 724      |
| 2003 | 9783        |
| 2005 | 10 640      |
| 2007 | 10 557      |
| 2009 | 5956        |
| 2011 | 5791        |
| 2013 | 5721        |
| Total| 97 468      |

Table 2. Number of patients who were usually able to see the same doctor, by sex, age, urgency of consultation, prior visit, and specific appointed doctor

| Patient characteristics | Responders, n | Do you usually meet the same doctor? |
|-------------------------|---------------|--------------------------------------|
|                         | n             | Yes, % | No, % | P-value |
| Sex                     |               |        |       |         |
| Female                  | 58 934        | 62.8   | 37.2  | 0.118   |
| Male                    | 32 911        | 62.3   | 37.7  |         |
| Age                     |               |        |       | ≤0.001  |
| <60 years               | 51 908        | 58.4   | 41.6  |         |
| ≥60 years               | 33 009        | 69.6   | 30.4  |         |
| Urgency                 |               |        |       | ≤0.001  |
| Acute/less acute        | 49 404        | 58.7   | 41.3  |         |
| Non-urgent              | 36 657        | 67.1   | 32.9  |         |
| Visit in previous 12 months* |          |        |       | ≤0.001  |
| Yes                     | 11 701        | 49.4   | 50.6  |         |
| No                      | 5019          | 55.2   | 44.8  |         |
| Specific doctor*        |               |        |       | ≤0.001  |
| Appointed               | 23 354        | 72.8   | 27.2  |         |
| Not appointed           | 11 915        | 26.6   | 73.4  |         |

Analyses

SPSS (version 20.0) was used for statistical analysis. The statistical significance of differences in frequencies between the groups was tested by \( \chi^2 \) test. Binary logistic regression analyses were used on patient characteristics, and on patients’ evaluation of consultation with their family doctor. To study how the various factors were connected to the continuity of care (dependent variable), both univariate and multivariate regression analyses were used. Patient-related factors and quality factors were dichotomised.

RESULTS

The number of responders varied between questions and study years. All the responders did not answer all questions. The replies of those patients who visited a doctor during the study week for all study years were analysed. The total number of patients was 97 468 (Table 1).

Of patients who had seen a doctor, 64% were female, 45% were aged ≥60 years, 57% needed urgent or less urgent treatment, and 70% had visited the health centre at least once in the preceding 12 months. Of the responders, 66% reported having a specific appointed doctor at the health centre.

Table 2 details the responses relating to sex, age, urgency, whether the patient had visited the healthcare centre in the previous 12 months and, for those patients who were usually able to see the same doctor, whether the patient had an
appointed doctor. Among patients who had a specific doctor appointed for them by the health centre, continuity of care was considered to mean the same thing in both male and female patients. In those aged ≥60 years, continuity of care was confirmed 11 percentage points more often than in the younger group. In non-urgent visits and in visits over the 12 months prior to the study visit, continuity of care was actualised slightly more often (more often than visits under 12 months). Of patients who said that they had a specific doctor appointed to them, 73% could usually meet the same doctor; only 27% usually met the same doctor if they had no appointed doctor (Table 2).

Overall, two-thirds of the patients gave the highest marks for quality aspects when they had a specific doctor appointed to them by the health centre (Table 3). The difference in giving the best-possible grades for the consultation between those who had a specific doctor appointed to them and those who did not varied from 7 to 10 percentage points and was statistically significant (P<0.001) in all quality aspects (Table 3).

Table 3. Consultation evaluation by patients who gave the highest score (10 points) for quality aspects of consultation when asked: ‘When you visit the health centre, do you usually see the same doctor?’

| Do you usually see the same doctor? | Responders, n | Yes, % | No, % | P-value |
|-------------------------------------|---------------|--------|-------|---------|
| Did you get information about the treatment options for your particular health problem? | Highest score | 29,215 | 68.5 | 31.5 | <0.001 |
| | Other | 44,876 | 59.9 | 40.1 | |
| Did you get clear and adequate instructions for further care and treatment? | Highest score | 35,322 | 67.7 | 32.3 | <0.001 |
| | Other | 42,459 | 59.4 | 40.6 | |
| Did the doctor/nurse listen to your problems and did they show interest toward you and willingness to answer your questions? | Highest score | 40,598 | 67.5 | 32.5 | <0.001 |
| | Other | 42,197 | 58.3 | 41.7 | |
| Did you feel that your matters were dealt with confidentiality? | Highest score | 48,613 | 66.2 | 33.8 | <0.001 |
| | Other | 35,131 | 58.6 | 41.4 | |
| Did you get help for your health problem? | Highest score | 37,930 | 66.4 | 33.6 | <0.001 |
| | Other | 39,294 | 59.9 | 40.1 | |

Table 4. Patient-related and consultation-related covariates representing continuity of care in univariate and multivariate regression analyses

| Patient-related items | Univariate analysis | Multivariate analysis* |
|-----------------------|---------------------|------------------------|
| | OR (95% CI) | P-value | OR (95% CI) | P-value |
| Woman | 1.02 (0.99 to 1.05) | 0.118 | 0.89 (0.82 to 0.98) | 0.014 |
| Aged ≥60 years | 1.63 (1.58 to 1.68) | <0.001 | 1.45 (1.32 to 1.59) | <0.001 |
| Non-urgent visit | 1.43 (1.39 to 1.47) | <0.001 | 1.32 (1.21 to 1.44) | <0.001 |
| Visit in preceding 12 months | 1.26 (1.18 to 1.35) | <0.001 | 1.11 (1.01 to 1.22) | 0.039 |
| Appointed doctor | 7.38 (7.02 to 7.75) | <0.001 | 7.28 (6.65 to 7.96) | <0.001 |

| Consultation evaluation | Univariate analysis | Multivariate analysis* |
|------------------------|---------------------|------------------------|
| | OR (95% CI) | P-value | OR (95% CI) | P-value |
| Got enough information | 1.46 (1.41 to 1.51) | <0.001 | 1.03 (0.88 to 1.20) | 0.743 |
| Got adequate instructions | 1.43 (1.39 to 1.48) | <0.001 | 1.02 (0.86 to 1.21) | 0.812 |
| Felt doctor listened and showed interest in their problems | 1.49 (1.45 to 1.53) | <0.001 | 1.06 (1.02 to 1.12) | 0.420 |
| Felt confident about confidentiality | 1.38 (1.34 to 1.42) | <0.001 | 1.21 (1.06 to 1.38) | 0.006 |
| Help for their health problem | 1.32 (1.29 to 1.36) | <0.001 | 1.10 (0.97 to 1.25) | 0.135 |

*Continuity of care was determined by asking: ‘When visiting the health centre, do you usually see the same doctor?’* All variables in the model. OR = odds ratio.
In both univariate and multivariate regression analyses, patient-related items explained the continuity of care; patients’ age, reason (urgent, non-urgent) for visit, and previous visits to the health centre (within the preceding 12 months) were linked to continuity of care (Table 4).

In the univariate analysis, patients’ experiences of how the doctor had listened and was willing to give answers were related to the continuity of care. In addition, the doctor’s behaviour during the consultation, the information given regarding medication and tests, confidentiality, the sense of receiving help with their problem, and receiving adequate instructions on further care contributed to the correlation (Table 4). In the multivariate analysis only the information and instructions given in the consultation did not appear to be significantly correlated with the continuity.

The most prominent factor related to continuity of care was having a specific doctor appointed by the health centre (odds ratio = 7.28, 95% confidence interval = 6.65 to 7.96).

Personal continuity of care decreased by 15 percentage points (from 66% to 51%) from 1998 to 2013 (Figure 1). At most, over two-thirds (69%) of patients, in 2000, reported that when they visited the health centre, they usually saw the same doctor in that year; in 2013, only around half (51%) were of the same opinion.

DISCUSSION
Summary
Several patient characteristics and features of their consultation experiences proved to be connected to continuity of care. The most clearly determining factor was having a specific doctor appointed by the health centre. Also notable was patients’ experience of the confidentiality of their consultation and how the doctor listened and was willing to give answers. Older patients, in particular, seemed to value having a specific doctor appointed to them, who was able to listen, understand, and care.

During the study years, 1998–2013, the continuity of Finnish primary care did not improve.

Strengths and limitations
This study constitutes the first longitudinal, systematic inquiry into continuity of primary health care in Finland. During the 15-year study period, it was possible to gather an extensive sample of patient opinions on personal continuity of care of health centre doctors. In this study area of 1.2 million inhabitants, there are both small, rural health centres and large health centres in the conurbations. However, the patients who chose to answer the questionnaire were likely to be those who had an opinion and wanted to express it. The responders’ views cannot be taken as representative of the whole population, therefore, but are likely to be representative of the main population using primary health care services in Finland.

The number of responders varied greatly during the study years. One of the reasons for this could be organisational and structural changes within, and between, the municipalities arranging primary healthcare services. This may also have been the result of the strengthening of occupational health services. Furthermore, some of the health centres suffered from a lack of professional healthcare staff. Although there were fewer responders, the number of patients visiting health centres also declined. Patients with relatively simple healthcare problems have gradually moved from health centres to occupational health services, while patients with long-term conditions and multimorbidity seem to remain under the responsibility of health centres. These patients also tend to need more services and longer appointments. At the same time it has become harder for people to access primary healthcare centres as resources are stretched.

Attempts have been made to find out reasons for non-response. Some examples are patients having left spectacles at home or being in a hurry; however, patients may not have completed the questionnaire.
because they had no desire or inclination to do so.

The researchers were aware of the challenges of studies using a questionnaire survey. Asking reception staff to pass out questionnaires is flawed as a means of systematic inquiry and involves a notable sampling bias. As the same flaws apply to the data throughout, however, it is reasonable to conclude that comparison over time is still robust. The low overall response rate (45%) is a limitation; nonetheless, the researchers consider the data and the process of assessing patients’ views to be reliable and comprehensive.

The adoption of the highest score was inspired by its use in other patient-satisfaction measurements.

**Comparison with existing literature**

The results of this study show that patients were less satisfied with the continuity of care at the end of the study, in 2013, than they were at the outset. A number of factors are associated with continuity of care, some of which are related to patient characteristics and some to features of the healthcare system. Several studies have shown that patients’ age, sex, perceived health status at the time, and socioeconomic status have an effect on continuity of care. The variables mentioned did not change significantly in Finland over the course of the study period and those associated with continuity of care here were similar to those in previous studies that used a similar methodology.

Patients in primary care appreciate continuity on the other hand, continuity of care alone is not a guarantee of good and efficient health care. The clearest determining factor associated with continuity of care in this study was having a specific doctor appointed by the health centre. Older patients with chronic diseases seem to benefit from the continuity of care and a long treatment relationship with the same doctor and nurse; in this study, patient age was related to the continuity of care as much as the non-urgency of the visit or previous visits to the doctor.

Good communication, proper instructions, and confidentiality during the consultation have been shown to increase satisfaction and enhance the continuity of care. These aspects were also found in this study. When trust and communication between patient and doctor is good enough, the patient tends to be satisfied with, and also committed to, their care.

There has been some discussion both internationally and also in Finland about whether personal list systems with patients being allocated to a specific named doctor are desirable, and feasible, in a primary care setting. A specific named doctor seems to lead to fewer critical and uninformed patients. The new Finnish Health Care Act, valid from 2010, emphasises freedom of choice for all patients, with authorities now appearing to trust that patients are both able, as well as willing, to choose for themselves the doctor with whom they prefer to consult. The question becomes, then, whether authorities are able to put this choice into practice when financial resources in health care are decreasing.

**Implications for practice**

The declined continuity of care in Finland is far from desirable and it would seem that the number of patients who could most profit from having a specific appointed doctor, that is, from being able to see the same physician, has increased. It is disconcerting that continuity of care has not improved in line with this. Patients who would particularly benefit from having an appointed doctor include those who are frail, such as older patients with long-term conditions and multitomorbidty, and patients who need, or use, the care most, such as drug and alcohol misusers, those who are mentally ill, and young people and families with social problems. These patients could profit from having a care manager, who, together with a team of professionals, would not only integrate and coordinate their care, but also empower patients to take an interest in their own care. The possibility of choosing their own doctor would be ideal for these patients but having a specific family doctor assigned to them would, at least, ensure the continuity of their care.

This study underlines the importance of the patient in assessing primary care services. It also confirms the significance of having a doctor personally assigned and how aspects of care that indicate good quality care can also promote continuity. The findings also indicate that new means of coordinating and developing care in Finland are still necessary to improve the continuity of primary health care. The authors suggest that, at least, those patients who need care most should be able to consult with a specific family doctor to enhance the continuity and quality of their care.
REFERENCES

1. McWhinney IR. Primary care: core values. Core values in a changing world. BMJ 1998; 316: 1807–1809.

2. Neuberger J. Primary care: core values. Patients’ priorities. BMJ 1998; 317: 260–262.

3. Haggerty J, Burge F, Lévesque JF, et al. Operational definitions of attributes of primary health care: consensus among Canadian experts. Ann Fam Med 2007; 5(4): 336–344.

4. Freeman GK, Hjortdahl P. What future for continuity of care in general practice? BMJ 1997; 314: 1859–1873.

5. Freeman GK, Dlesen F, Hjortdahl P. Continuity of care: an essential element of modern general practice? Fam Pract 2003; 20(6): 623–627.

6. Haggerty JL, Reid JR, Freeman GK, et al. Continuity of care: a multidisciplinary review. BMJ 2003; 327: 1219–1221.

7. Salisbury C, Sampson F, Ridd M, Montgomery AA. How should continuity of care in primary health care be assessed? Br J Gen Pract 2009; DOI: 10.3399/bjgp09X420257.

8. Kringos DS, Boerma WG, Hutchinson A, et al. The breadth of primary care: a systematic literature review of its core dimensions. BMC Health Serv Res 2010; 10: 65.

9. Cabana MD, Lee SH. Does continuity of care improve patient outcomes? J Fam Pract 2004; 53(12): 974–980.

10. Grol R, Wensing M. Measuring performance quality in general practice: is international harmonization desirable? Br J Gen Pract 2007; 57: 691–697.

11. Campbell SM, Braspennning J, Hutchinson A, Marshall MN. Research methods used in developing and applying quality indicators in primary care. BMJ 2003; 326: 816–819.

12. Haggerty JL, Pineault R, Beaulieu M-D, et al. Practice features associated with patient-reported accessibility, continuity, and coordination of primary health care. Ann Fam Med 2008; 6(2): 116–123.

13. Wong ST, Regan S. Patient perspectives on primary health care in rural communities: results of a geography on access, continuity and efficiency. Rural Remote Health 2009; 9(1): 1142.

14. Frederiksen HB, Kragstrup J, Dehholm-Lambertsen G. It’s all about recognition? Qualitative study of the value of interpersonal continuity in general care. BMC Fam Pract 2009; DOI: 10.1186/1471-2296-10-47.

15. Vedsted P, Mann J, Lauritsen T, Dlesen F. Patient and GP agreement on aspects of general practice care. Fam Pract 2002; 19(4): 339–343.

16. Hjortdahl P, Laurum E. Continuity of care in general practice: effect on patient satisfaction. BMJ 1992; 304: 1267–1269.

17. Saultz JW, Albeeawil W. Interpersonal continuity of care and patient satisfaction: a critical review. Ann Fam Med 2006; 4(5): 445–451.

18. Sans-Corrales M, Pujol-Ribera E, Gené-Badia J, et al. Family medicine attributes related to satisfaction, health and costs. Fam Pract 2006; 23(3): 308–316.

19. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q 2003; 81(3): 407–452.

20. Wonca Europe. The European Definition of General Practice/Family Medicine—Edition 2011. http://www.woncaeurope.org/content/european-definition-general-practice-family-medicine-edition-2011 (accessed 14 Aug 2014).

21. Barnes KA, Kroening-Roche JC, Comfort BW. The developing vision of primary care. N Engl J Med 2012; 367(10): 891–893.

22. Faber M, Voerman B, Eler A, et al. Survey of 5 European countries suggests that more elements of patient-centered medical homes could improve primary care. Health Aff (Millwood) 2013; 32(4): 797–806.

23. Cocksedge S, Greenfield R, Nugent GK, Chew-Graham C. Holding relationships in primary care: a qualitative exploration of doctors’ and patients’ perceptions. Br J Gen Pract 2011; DOI: 10.3399/bjgp11X588457.

24. Guthrie B, Wyle S. Does continuity in general practice really matter? BMJ 2000; 321: 734–736.

25. Nutting PA, Goodwin MA, Flocke SA, et al. Continuity of primary care: to whom does it matter and when? Ann Fam Med 2003; 1(3): 149–155.

26. Guthrie B, Saultz B, Freeman GK, Haggerty JL. Continuity of care matters. BMJ 2008; 337: a687.

27. von Blüttzingløwen J, Eiaasøe G, Sarvimäki A, et al. Patients’ views on interpersonal continuity in primary care: a sense of security based on four core foundations. Fam Pract 2006; 23(2): 210–219.

28. Boulton M, Tarrant C, Windridge K, et al. How are different types of continuity achieved? A mixed methods (longitudinal study. Br J Gen Pract 2006; 56(531): 749–755.

29. van Servellen G, Fongwa M, Mockus D’Errico E. Continuity of care and quality care outcomes for people experiencing chronic conditions: a literature review. Nurs Health Sci 2006; 8(3): 185–195.

30. Mäntyselkä P, Halonen P, Vehviläinen J, et al. Access to and continuity of primary medical care of different providers as perceived by the Finnish population. Scand J Prim Health Care 2007; 25(1): 27–32.

31. Teperi J, Porter ME, Vuorenkoski L, Baron JF. The Finnish Health Care System: A Value-Based Perspective. Sitra Reports 82. http://www.sitra.fi/julkaisut/raportti82/pdf/download/DownloadPdf.jsf (accessed 27 Jul 2014).

32. Kokko S. News from the Nordic colleges of general practitioners. Developments in Finnish general practice. Scand J Prim Health Care 2006; 24(1): 1–2.

33. Kokko S. Towards fragmentation of general practice and primary healthcare in Finland? Scand J Prim Health Care 2007; 25(3): 131–132.

34. Kokko S. Integrated primary health care: Finnish solutions and experiences. Int J Integr Care 2009; 9: e86.

35. Grol R, Wensing M, Manz J, et al. Patients’ priorities with respect to general practice care: an international comparison. European Task Force on Patient Evaluations of General Practice (EUROPEP). Fam Pract 1999; 16(1): 4–11.

36. Allan J, Schattner P, Stocks N, Ramsay E. Does patient satisfaction of general practice change over a decade? BMC Fam Pract 2009; 10: 13.

37. Ravoo R, Jääskeläinen J, Holmberg-Marttila D, Mattila KJ. Assessment of patient satisfaction in primary health care: reliable information and benchmarking. Finnish Med J 2008; 61(33): 2623–2626.

38. Tom JO, Mangione-Smith R, Solomon G, Grossman DC. Integrated personal health record use: association with parent-reported care experiences. Pediatrics 2012; 130(1): e183–190.

39. Aboulghate A, Abel O, Elliott MN, et al. Do English patients want continuity of care, and do they receive it? Br J Gen Pract 2012; DOI: 10.3399/bjgp12X553624.

40. Williams S, Weinman J, Dale J. Doctor–patient communication and patient satisfaction: a review. Fam Pract 1999; 16(1): 480–492.

41. Ministry of Social Affairs and Health [Finland]. Health Care Act. 1326/2010. http://www.finlex.fi/fi/laki/kaannokset/2010/en20101326.pdf (accessed 27 Jul 2014).