International exchange

Impact of continuity on quality of primary care: from the perspective of citizens' preferences and multimorbidity – position paper of the European Forum for Primary Care

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ABSTRACT

Background Continuity of care is one of the cornerstones of primary care. Initially, the concept of continuity largely corresponded to one care provider and continuity between doctor and patient, but today, healthcare processes and organisations have grown and become more complex. A survey of patients with complex care needs found that in all of 11 countries studied care was often poorly coordinated. Multidimensional models of continuity have to be developed.

Aim To study existing evidence concerning significance of continuity in primary care with special consideration given to the preferences of citizens and to patients with complex care needs.

Methods Contemporary literature was studied from the aspects of primary care, patients' point of view, multimorbidity and organisational models. Examples from country systems were collected. The topic and drafts were presented and discussed at two EFPC conference workshops.

Results Evidence shows that both patients and caregivers identify and value continuity in the form of regular sources of care, and that provider continuity is related to lower total healthcare costs on a macro level. Continuity is a considerable component of quality in primary care. Methods to measure and compare between primary care centres, organisations and countries to stimulate improvements in continuity is lacking. The complexity of operationalising continuity in the context of multidisciplinary team-based primary care today and in the future remains a challenge.

Conclusions Continuity is, and will be, an important component of quality in primary care, especially from the perspective of citizens and growing multimorbidity. Methods to develop continuity should be promoted.

Keywords: continuity, multimorbidity, organisational models, primary care, quality of care

Introduction – clarifying concepts

Continuity of care has long been one of the cornerstones of primary care and is included in at least two of the eleven characteristics of the discipline of general practice/family medicine stated by the World Organization of Family Doctors (WONCA) and in the European definition of general practice/family medicine in the Short Version EURACT 2005. Initially, the concept of continuity largely corresponded to one care provider and continuity between doctor and patient, but today, healthcare processes and organisations have grown and become more complex. Today, primary

healthcare is mostly provided by different professionals who fulfil patients' healthcare needs, and multidimensional models of continuity therefore have to be developed.²

Continuity of care can be viewed in several different ways, and from the perspective of the patient or the provider. Continuity of care has been described as:^{3–5}

- with a practice
- interpersonal continuity
- informational continuity

- relational (or relationship) continuity (a continuous therapeutic relationship with a clinician) and
- management continuity (continuity and consistency of clinical management, including providing and sharing information and care planning, and any necessary co-ordination of care required by the patient).

For primary care, the most important and relevant type of continuity seems to be what Starfield defined as longitudinality, referring to the use of a regular source of care. Starfield claimed that the concept of continuity stands for a bridging mechanism between visits for a specific condition or episode. In his article, Defining and measuring interpersonal continuity of care, Saultz defined three hierarchical levels of continuity: informational, longitudinal and interpersonal. Interpersonal continuity is the highest level and refers to a special type of longitudinal continuity with an ongoing personal relationship between patient and care provider. Longitudinal continuity does not automatically lead to interpersonal continuity.

Several studies have shown the health effects and health economic benefits of continuity in primary care. Starfield showed that a primary care organisation with high continuity of care had lower rates of hospital admissions.8 Higher continuity of care was associated with more effective prevention.9 Hjortdahl and coworkers showed an association between continuity and higher patient satisfaction. 10,11 By contrast, in a systematic review, published in 2010, concerning the relationship between patient satisfaction and continuity, Adler et al^3 concluded that no single measure of continuity of care could be shown to be more valid, and that no clear relationship between patient satisfaction and continuity could be shown. A recently published meta-synthesis of qualitative studies on patients' opinions on continuity of care showed that patients identified factors that promote, as well as reduce, continuity of care across boundaries. 4 Patients with chronic illnesses valued being attended regularly and over time by one physician, whereas younger patients valued convenient access. The authors concluded that 'variations in perceived importance seem to depend on both individual and contextual factors which should be taken into account during health care provision'.4

In 2003, Freeman *et al*¹² stated that further evidence was needed to demonstrate the added value of interpersonal continuity in general practice, and that continuity, especially interpersonal continuity, was important for future primary care development. In their 2010 King's Fund report, Freeman and Hughes, summing up evidence concerning relational continuity, especially from the patients' point of view, proposed that there were more benefits than risks from relational continuity.^{5,13} The inter-relationships

between different care processes, organisational conditions and managerial or communication circumstances, and their effect on continuity of care, and the effects of continuity on these conditions are extremely complex. A recent review of the concept of continuity identified three core elements that to patients appeared to be core elements of care. Formulated from the patient's perspective these were: (1) the personal relationship between patient and care provider, (2) communication between providers, and (3) cooperation between providers. ¹⁴ Continuity of care can thus be seen as an important element of care from the patient's perspective. Core elements which should be included in future primary care development include continuity of care provider, as well as informational continuity within the primary care organisation and between different care levels. 15

Continuity – a concern for primary care

To date, the research evidence seems to show that both patients and caregivers value continuity in the form of regular sources of care, ⁴ and that provider continuity is related to lower total healthcare costs on a macro level. Evidence seems to be somewhat lacking concerning the added value of interpersonal continuity in general practice, and the extent to which continuity contributes to quality of care within primary care. However, as mentioned in the 2010 King's Fund report on the status of knowledge concerning relational continuity, especially from the patients' point of view, it is concluded that the evidence supports more benefits than risks. 5,13 Evidence about cost-effectiveness is neither contemporary nor comprehensive, and there is a lack of research concerning costs of decreasing continuity in primary care. Freeman and Hughes also put forward that opposing factors contribute to increased demand for relational continuity, i.e. when patients with deteriorating chronic diseases increase their demands for primary care contacts, which may explain why there is inconsistent evidence on the relationship between longitudinal continuity and patient outcomes.⁵ This might also explain the weak association between higher continuity and better health outcomes.^{5,16}

Taken together, there seems to be evidence for interpersonal continuity, but there is a problem making this fit into the developing primary care team structure and the high demands on accessibility. Further development must concentrate on how to maintain an organisation in which continuity represents high quality and should be remunerated in itself. This means that there must be possibilities, well

formulated in the King's Fund Report by Freeman and Hughes⁵ to measure continuity, develop continuity within primary care teams, and help patients find continuity.

This position paper is focused on these issues with special consideration given to the preferences of citizens.

Continuity of care and the multimorbidity issue – a concern at the European Union (EU) level

In 2003, Freeman et al raised the question of whether primary care, especially British primary care, was moving away from continuity of care. 12 Further, a recent definition of general practice did not mention continuing care. Surveys on GPs' attitudes in 2005 showed that there was still a high level of agreement and that personal continuity remained an important aspect of good-quality care to GPs' patients in European countries and the US.¹⁷ Substantial evidence of continuity promoting better outcomes is still partly lacking for chronic diseases. 18 In 2004, a review of 16 studies on the effects of sustained continuity of care found associations between patient satisfaction (four studies), decreased hospitalisation (seven studies) and improved receipt of preventive services (five studies).¹⁹ In a report from the EFPC and Netherlands Institute for Health Services Research (NIVEL), financed by the Belgian Federal Institute for Health and Disability Insurance (NIHDI), on chronic disease management one of perceived strengths of the disease management approach mentioned was greater continuity of care, together with proactive and well-structured care processes, multidisciplinary collaboration, and the attention to patient outcomes and satisfaction.²⁰ In a study of the association between interpersonal continuity with a family physician and total healthcare costs, de Maeseneer et al showed that interpersonal continuity in primary care constituted an important component, explaining total healthcare costs for the individual and indicating cost-effectiveness on the macro level of providing continuity in structured primary health-

Concentrating on the association between patient outcomes and continuity of care, where indicators of continuity are not always defined as continuity by patients, but rather as specified indicators that contribute to good as well as less good outcomes, it shows that there is good correspondence between outcomes and processes identified as positive.²² In a review of clinical trial literature which aimed to determine the extent of an association between quality care indicators and informational, management and relational

continuity of care, there was an association with patient-focused outcomes and a wide range of indicators of functional status, quality of life and patient satisfaction.²³

There are further studies in patients with multimorbidity and chronic diseases, the groups of patients that are increasingly the responsibility of primary care and a growing part of healthcare as a whole. In a study of patients' perceptions about continuity of care in chronic disease (diabetes), Naithani et al showed that patients seldom used the concept 'continuity', but rather identified processes of care that were identified as positive and a lack of these processes as negative.²² The patients identified most of the dimensions also identified by Freeman; longitudinal continuity, relational continuity, flexible continuity, and team and cross-boundary continuity. An exception was the informal dimension, seldom identified by patients, but the processes perceived as positive were continuous information, staff with a knowledge of the patient's medical history and their agreement with treatment.²² A lack of continuity mainly occurred at transitions between sites of care, between providers or with major changes in patients' needs.²²

Concerning continuity of care across services, an Israeli study of Clalit Health Services showed that many indices of continuity of care were associated with lower numbers and costs of emergency department visits. By contrast, higher continuity was associated with higher numbers of consultant physician visits and greater medication costs.²⁴

Continuity of care with a primary care physician among older adults followed up for up to 12 years showed greater reductions in mortality with increasing continuity. In a study on multimorbidity, Salisbury et al retrospectively studied 100 000 primary care patients aged 18 years or over registered with 182 general practices in England. Around 60% of the patients had chronic conditions accounting for 80% of consultations. They had higher consultation rates but received lower continuity, although they would have been more likely to gain from it.

In 2006, Solberg *et al* published a study about the factors that increased quality of care in the treatment of depression in primary care.²⁷ They found that with better continuity and increased accessibility more patients received acute and maintenance treatment for depression. Improved access alone did not increase quality of care in these respects. In a Norwegian study of depression in general practice, the therapeutic effect of regular, continuous visits was equal to specific serotonin reuptake inhibitor (SSRI) treatment.²⁸

A review of electronic consultations (e-consultations) concluded that direct benefits from e-consultations include the continuity of care that results from keeping care more centred in a patient's medical home, greater convenience and reduced cost.²⁹

A recent synthesis of research programmes on continuity of care mainly concentrated on what continuity of care is and how it is perceived. Most studies concerning continuity related to specific diagnoses, with few concerning primary care *per se*. An important factor that influenced experience of continuity was whether care was person-focused or disease focused.

A survey of patients with complex care needs in 11 countries (Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the UK and the USA) found that in all of them, care was often poorly coordinated.³⁰ However, adults seen at primary practices with the attributes of a patient-centred medical home - where clinicians are accessible, know patients' medical history and help co-ordinate care - gave higher ratings to the care they received and were less likely to experience gaps in co-ordination or report medical errors. The authors concluded: 'Our study indicates a need for improvement in all countries through redesigning primary care, developing care teams accountable across sites of care, and managing transitions and medications well'.30

In Freeman and Hughes' King's Fund report 2010, it was emphasised that, based on evidence of positive health and organisational effects for most patients who were positive about continuity from primary care staff, primary care organisations and primary care centres should help patients to achieve relationship continuity when desired, even if this is not formulated as continuity of care, but rather expressed as a desired process or processes.⁵ Failure to do this sends a message that relationship continuity is unimportant and not a priority for care. The King's Fund report also stressed the need to develop usable and applicable instruments for measuring continuity; personal relationship between patient and care provider, communication between providers and co-operation between providers.

In their review of the concepts of continuity, coordination, integration, patient-centred care and case management, Uijen *et al*¹⁴ recommend the development of an instrument for measuring these themes as an important measure of quality from the patient perspective.

Overall, there was a contradiction between the growing number of primary care centres and a primary care system that encompasses features enhancing continuity of care. There was also sometimes tension between high accessibility and continuity of care, although providing high continuity of care has been shown to lead to high accessibility.²⁷ There is evidence for increased patient satisfaction and lower healthcare costs with greater continuity of care, but the evidence concerning medical and other outcomes was weak. Among patients, continuity is ranked highly,

although different patients and patients in different situations choose differently. Patients do not always look for fast access when seeking a familiar clinician, especially for ongoing problems where there is emotional engagement with the practitioner.⁵ Patients should have the choice of a regular clinician and this possibility must be highlighted by the organisation to facilitate patient choice.⁵

Although evidence seems to increasingly favour continuity as one of the cornerstones of high-quality primary care, there is no sign of a decrease in lack of continuity in primary care in Europe. The previously mentioned synthesis of quality of care for patients with complex care needs in 11 European countries showed that all countries needed improvements in primary care teams to manage, among other things, transitions and medication.³⁰

Conclusions

The complexity of operationalising continuity in the context of multidisciplinary team-based primary care today and in future, with its desirable effects on care from the patient, medical, health economic and political perspectives, remains a challenge. The evidence shows that continuity is a considerable component of quality in primary care. Challenges include how to measure and compare between primary care centres, organisations and countries to stimulate improvements in continuity.

Freeman and Hughes⁵ concluded in the King's Fund report that there is a need to:

- further develop methods to assess and promote continuity in primary care
- research to better understand and operationalise continuity and how development of continuity should be stimulated and incentivised
- study the effects including costs and benefits of continuity in primary care today, as well as the costs of reduced continuity.

Experiences and developments in management, including country or system characteristics that influence these experiences

Proposed study of medical effects of continuity of care in VG Region, Sweden

We will explore the possible health effects of continuity of care using a quality register based on electronic patient record (EPR) data from the County Council of VG Region, Sweden (Q-regPV) to describe experiences (both positive and negative) and devel-

opments in (case) management, including country or system characteristics that influence these experiences. We plan to explore the possible association between continuity of care and HbA1c levels, blood pressure control, medication, mental health treatment and patient satisfaction in the primary care patient population with chronic diseases in co-operation with networks, university and the region. For measures of longitudinal continuity, we will use usual provider continuity (UPC) and a continuity of care index (COC). UPC measures the proportion of visits to the usual provider. The COC index consists of number of providers and number of visits; the fewer providers the care taker has seen in several visits the higher the COC index.³¹

UPC is the most frequently used measure of continuity,³² whereas the COC index, in addition to visits to each provider, also reveals the dispersion of visits among providers. However, the COC index is regarded as more difficult to interpret than UPC. Preliminary results concerning possibility to assess continuity via the quality register were presented at the EFPC conference in Gothenburg (September 2012) and showed that it is possible to study associations between continuity and glycaemic as well as hypertension control at a primary care centre level, and also to study how visit patterns and continuity vary between patients with chronic illness and patients without. Continuity was measured from October 2009 to February 2012. No significant results were obtained concerning glycaemic and hypertension control results (due to only four participating centres in this pilot study), but continuity was shown to more often be maintained concerning patients with chronic disease. A study with the number of primary care centres necessary to reach power is currently in preparation.

Two ongoing EU research projects use continuity as one of several dimensions of quality in primary care

In 2010, an EU project financed by DG Sanco called Primary Healthcare Monitor for Europe (PHAMEU) was conducted in 27 European countries.³³ The PHAMEU monitor, a further development of the Primary Care Assessment Tool by Starfield *et al*,^{8,34} measured the performance of primary healthcare systems over ten dimensions and several characteristics related to these dimensions. One of the ten dimensions was the 'continuity of care' dimension, assessed as: (1) longitudinal continuity of care, (2) informational continuity of care, (3) relational continuity of care and (4) management continuity of care.

Particular attention was paid to the importance of hospitalisation for primary care sensitive conditions as an indicator of the quality of primary care systems and to show how better primary care can influence hospital use and admissions. The evidence for continuity of care as a core dimension of quality in primary care is described by Kringos *et al*³³ in 'The strength of primary care in Europe' which summarises six studies and seven literature reviews as showing:

- a positive association between continuity and improved care co-ordination
- continuity consistently related to improved preventive services
- continuity assures high quality of care
- continuity can be cost-effective in primary care
- continuity can ensure greater efficiency of services
- a relation between continuity of care and improved patient satisfaction.

Country data on all indicators were transformed into scores indicating the strength of primary care in the countries, ranging from $1 = \text{weak to } 3 = \text{strong.}^{33}$ Overall results for the continuity of care were described (p. 155):³³

- weak continuity of care GR, LU, MT, TR, AT, IT, SE, LT, NL and SI
- medium continuity of care BG, CH, CY, FR, FI, NO, RO, HU, PL, PT, UK
- high continuity of care BE, IE, LV, DE, EE, IS, SK, CZ, DK and ES.

Where GR = Greece, LU = Luxembourg, MT = Malta, TR = Turkey, AT = Austria, IT = Italy, SE = Sweden, LT = Lithuania, NL = Netherlands, SI = Slovenia, BG = Bulgaria, CH = Switzerland, CY = Cyprus, FR = France, FI = Finland, NO = Norway, RO = Romania, HU = Hungary, PL = Poland, PT = Portugal, UK = United Kingdom, BE = Belgium, IE = Ireland, LV = Latvia, DE = Germany, EE = Estonia, IS = Iceland, SK = Slovak Republic, CZ = Czech Republic, DK = Denmark, ES = Spain.

However, longitudinal continuity of care is relatively high in most countries. Recommendations from these results include: 'Improvements can be made in informal and interpersonal continuity of care. For example by offering primary care providers adequate software and training to use it. Practice computers can be used for multiple purposes, such as supporting public health functions, information exchange with peers and medical record keeping'. Another finding was that where data exist, patients are least satisfied with primary care providers' communication skills and consultation duration.³³

Another study, financed by the EU FP7 programme, examines the perceptions of GPs and patients for these dimensions as part of the whole picture of primary care performance. This study, QUALICOPC (Quality and Costs in Primary Healthcare in Europe), is a questionnaire survey in 31 European counties.³⁵ The aim is to evaluate the performance of primary

care systems in Europe in terms of quality, equity and costs.

An example of complexity of 'continuity of care' in primary care: Austria

In Austria, a recent publication reviewing primary care performance in Austria assessed using the Primary Care Assessment Tool (PCAT) developed by Starfield *et al*³⁴ where continuity of care is one dimension which showed that the primary healthcare sector in Austria is weakly developed.³⁶ In particular, 'practice score', which includes 'continuity of care', was rated quite low for Austria (Table 1).

Although this publication has several limitations, especially in comparing results obtained in different years, it points to weak primary care in Austria. The reasons for this are manyfold and conflicting. There are mostly (around 95%) single-handed GP offices in Austria. Although this could be good for continuity, GPs do not have a gatekeeping function or a list system.³⁷ In the Austrian healthcare system, patients are, with few exceptions, entitled to directly access a specialist, hospital outpatient department or ambulatory clinic without referral from the GP.

Direct consultations with specialists have increased considerably in the past, but more recently the number of referrals has gone down.³⁸ Where continuity of care exists, this depends on the 'loyalty' of the patient to the GP.³⁹ In addition, it is questionable whether single-handed practices are able to sustain the GP's

health, which should also be a healthcare system quality indicator. ⁴⁰ The pressure and stress on GPs, especially those 'at the deep end' in deprived areas is significantly higher, whereas primary care teams, by sharing tasks are better able to cope with diverse demands, providing more sustainable care, 24 hours a day, 7 days a week if necessary. ^{41,42} Furthermore, Pelone *et al*⁴³ argued that policy makers should not rely on maximising individual functions of primary healthcare without taking into account the coherence of the healthcare system to achieve efficient care.

There are further challenges for the Austrian healthcare system related to continuity of care. Austria does not have a clearly defined system of primary healthcare. Primary care is part of a wider ambulatory sector which includes specialists working in offices and in hospital outpatient departments or ambulatory clinics, and most physicians working in the ambulatory sector are specialists.³⁹ However, according to 'Euro Health Consumer Index 2009' Austria ranked fourth among the EU-27 plus six additional European countries on consumer satisfaction with the healthcare system. 44a The survey was produced by Health Consumer Powerhouse, a private Swedish company which declares to be 'funded by unrestricted research funds and co-operation with the European Commission'. But since then a further publication 'The cost of satisfaction' (Fenton et al44) has questioned the validity of population satisfaction as a sole outcome measure.

Table 1 Primary care scores rated with the PCAT. Comparison of the results from Starfield^{36a} with results for Austria in 2010³⁶

Country	System score	Practice score	Total score	Total score (average)
Low primary care				
Austria	4.0	3.0	7.0	0.5
Belgium	5.6	0.0	5.6	0.4
France	5.0	0.0	5.0	0.3
Germany	6.0	0.0	6.0	0.4
USA	4.0	1.5	5.5	0.4
Intermediate primary care				
Australia	10.0	7.0	17.0	1.1
Canada	11.5	6.0	17.5	1.2
Japan	8.5	4.0	12.5	0.8
Sweden	10.0	4.0	14.0	0.9
High primary care				
Denmark	16.0	10.0	26.0	1.7
Finland	15.0	7.0	22.0	1.5
The Netherlands	13.0	10.0	23.0	1.5
Spain	12.5	8.0	20.5	1.4
UK	18.0	11.0	29.0	1.9

There are several studies showing the health and health economic benefits of continuity in primary care. For example, Starfield showed that primary care organisations with high continuity of care had lower rates of hospital admissions. Austria has one of the highest hospital admission rates in Europe and a high healthcare expenditure related to the gross domestic product (GDP) per capita (Organization for Economic Cooperation and Development, 2011), but compared with other EU countries it has a low life expectancy. 45–47

Because the PCAT does not use 'outcome' characteristics, it is not possible to prove a real relationship between the presented Austrian findings, but it does show the complexity of comparing different countries with different primary care systems and the need for international studies comparing the structure of health systems.

Participation in international and European studies allows us to gather good data for comparisons and to help stakeholders and politicians comprehend the need to strengthen primary care.

Continuity of care, a way to reduce health inequalities: an example from Romania

In Romania there are around 11 000 GPs, mostly working in solo practices with a practice nurse to GP ratio of 1.2. There is approximately one GP per 1545 inhabitants. There are 88 settlements including 153 904 inhabitants without any healthcare provider, 2330 people without access to out-of-hours care, and 16% without health insurance. Among EU states, Romania has the lowest proportion of GDP (5.5%) spent on healthcare.

Little or no efforts have been made at the policymaking level to address the socio-economic determinants of health or to tackle health inequalities arising from reduced access to healthcare, lack of local health services and poverty. No feasible solutions are offered to bridge the gap between sporadic and continuous access to healthcare services. But local primary care teams can play a key role in maintaining continuity and offering tailored community health services.

To give an example of good practice in delivering reliable, continuous health services and the evidence of its effect, we present a health centre located in north-west of Romania, which has offered locally integrated health services using local resources and emphasising the importance of a team approach. The centre has monitored its impact on community health indicators. The community is provided with locally performed ultrasound, electrocardiography (ECG), laboratory tests, physiotherapy, family planning services and access to prevention programmes. Educational programmes targeting different community groups have developed over the years and research has gathered evidence on their effectiveness. The ongoing

activities and continuity have helped develop community partnerships.

Continuity in access and high-quality, sustainable and reliable health services, have enabled health promotion programmes to improve health indicators, leading to a healthier and more satisfied population, decreased secondary care service needs and efficient utilisation of the existing resources. A primary care team, appropriately equipped with tools and empowered with knowledge, is well positioned to reduce health inequalities. Patient education will establish provider-patient partnerships, which lead to a more responsible and self-caring population. Our conclusions are that integrated health services and ongoing population-based health education and screening programmes should be delivered locally with reliable services to build trust and engagement. Gaps in healthcare provision will negatively influence patient behaviour and lead to setbacks. Our approach towards continuity in primary care service delivery in the community has helped to improve the relationship between health staff and the local population; trust has reduced the threshold for contact. The model is sustainable as it uses local resources and is based on a partnership with the community.

How a multiprofessional approach influences continuity in primary care and improves outcomes: the Case della Salute and the Sanità di Iniziativa in Tuscany Region (Italy)

Since 2000, the Tuscan Regional Health System (TRHS) has been working to improve the quality of primary care. In particular, TRHS has promoted organisational interventions able to increase the number of patients followed continuously by professionals engaged in primary care services; to decrease inappropriate health service use such as emergency department (ED) visits hospitalisations; and to promote efficient and appropriate prescribing of medicines. In order to achieve these goals TRHS has supported the creation of multiprofessional teams in primary care.

On the basis of this regional commitment, since 2008 local health authorities (LHAs) have created the Case della Salute which are multiprofessional primary care centres which offer more complete services to patients than traditional mono-professional general practices. Patients continue to be followed by a specific GP, additionally supported by nurses, specialists, social workers and administrators housed within the general practice building. Information about patients, care and services provided and health status are entered in electronic patient records by all team members and collated in an electronic database. Since 2012 about 15 such 'health houses' have been opened.

The Casa della Salute S. Andrea (Empoli LHA) is an important example of the extent to which a teambased continuity can influence efficiency and efficacy of primary care. Results achieved in the period 2008–2011 show that Casa della Salute S. Andrea had a good performance at the local and regional levels. ⁴⁸ Patients followed by the team at this primary care centre significantly and progressively reduced their visits to the ED and hospitalisations in 2011 to 16 and 6% less than the LHA average, respectively. Moreover, prescriptions for branded, more expensive drugs were kept under control, although these were previously below average.

The presence of social workers in Casa della Salute S. Andrea makes it possible to meet patients' social care needs. The number of patients who received social support increased from 177 in 2008 to 288 in 2011.

The team at the Casa della Salute S. Andrea is able to provide continuity of patient care. Long-lasting relationships between patient and GP, traditionally identified as a point of reference in the care of patients, the presence of further health professionals and social workers in this primary care centre's team has made it possible to provide continuity in the care pathway, which is usually too often fragmented, as also happens for chronically ill patients.

In 2010, the regional Sanità di Iniziativa project introduced the chronic care model for patients with chronic disease (especially diabetes and heart failure) in the Tuscany region. According to the TRHS commitment, GPs have been invited to work in multiprofessional teams (GPs, nurses, specialist, physiotherapists, nutritionists, social workers, etc.) according to an activate health service approach which follows all patients with actual and potential chronic disease covering the whole population of Tuscany. The team identifies patients with chronic diseases, ensures continuity of care with periodical consultations and examinations and follows them in a whole care pathway. In 2012, more than 40% of the Tuscan population was followed by primary care teams adopting the activate health service approach. From 2013, all Tuscan GPs will be asked to engage in a multiprofessional team.

Results of the first two years of the project revealed that continuity of care for chronic disease management, provided by multiprofessional teams, improved processes and outcomes of care (e.g. HbA1c measurement rates increased and specialist visits decreased significantly) compared with care provided by traditional mono-professional teams. Moreover, on the basis of a patient experience survey conducted in 2012, about 65% of patients in the chronic care programme showed improvements in health status, were more informed and better able to self-manage their condition. Results also show that trust in GPs was

the main reason why patients agreed to be included in the chronic care programme, and when a nurse consultation took place in a building where GPs were not present, it was more likely that patients went to their doctor in the following days to ask for confirmation or information about what the nurse said or did. However, trust in nurse care was high and positively influenced patient experience. Moreover, how GPs and nurses worked together had a positive impact on patients' perceptions of the quality of care. 50 Engagement of nurses in chronic care management, although a challenge for the Italian and Tuscan health systems, can help to improve continuity of care. The integration and co-ordination of health professionals will be strategically important for the future of continuity of care in primary care in Italy.

Lessons learned and the policies that favour positive experiences of access, equity, efficiency and quality

Continuity of care is an important element of primary care, and provides the basis for clinician-patient relationships and patient satisfaction, with a range of evidence indicating that provision of high interpersonal and relational continuity is an important contributor to high-quality care. Current developments in primary care, with more extensive primary care centres, team-based practice systems and the promotion of high access have a tendency to reduce continuity. To develop interpersonal as well as management continuity, it must be facilitated and promoted in the same way as access is, and patients should be given the possibility of choosing continuity during their repeated contacts, and as their needs change with changing health, family, and socio-economic circumstances. Individualised care includes informational continuity, which enables individualised information, shared understanding and shared decision making with the patient, leading to more efficient care adapted to patients' needs.

Recommending policy measures on national and European level

There is increasing evidence for positive health effects at a national level when continuity is provided as a special component of primary care. Policy measures at national and European levels should ensure a better understanding of the importance of continuity and the need to prioritise or incentivise continuity along-side other developments in healthcare. Patients with multimorbidity and chronic diseases value provider continuity in its broad sense. The ageing European society, in which an increasing part of the population is aged over 65 years and where around 50% of these

older individuals have more than three chronic diseases, depends on healthcare being orientated to goals that include individual patient choice and desirable and achievable quality of life and function. The threat to healthcare with growing specialisation is a focus on single diseases, where guidelines may lead to contradictions in therapy for the growing population with multimorbidity. This type of specialisation can lead to a lack of responsibility for care, poor information flow, dilution of responsibility and fragmentation of care. To increase comprehensiveness of care and include the individual patient in a sustainable care system of high quality, a primary care system incorporating multidisciplinary team-based care that has high accessibility and high continuity will provide the desirable effects on care from patient, medical and health economic perspectives.

Areas for further research

Areas for further research related to continuity, patient satisfaction and quality of care include:^{5,51}

- methods
 - of assessing and promoting continuity in practice,
 - to measure continuity of care
 - to develop toolkits for measuring continuity for practices
 - for practical data collection
- organisational areas
 - types of professionals and consultations for creating continuity
 - periods to be assessed for creating continuity
 - effects including costs and benefits of continuity in today's general practice
 - do new models of primary care reduce continuity?
 - the significance of continuity for multimorbidity, goal-oriented care and equity.

Addressing primary care from a comprehensive, multidisciplinary, patient-centred and community oriented approach

Continuity of care is one of the cornerstones of primary care, and should be delivered in today's high-quality primary care to all patients who demand continuity, and to all patients with chronic diseases and multimorbidity. Many patients in primary care value continuity highly and are able to identify when continuity is absent. For primary care organisations, maintaining continuity should be ranked highly and development of methods to maintain and increase continuity in multidisciplinary, team-based and person-centred primary care should be prioritised.

Continuity of care for patients with chronic diseases (in disease management programmes) anchored in a strong primary healthcare system is a requirement for 'equity between diseases'. By building an organisation based on multidisciplinary competence, where many different types of patients' needs can be met, together with longitudinal, informational, relational and management continuity, high-quality support and care for patients with chronic illnesses can be better delivered.

Continuity has also been shown to increase health-care quality at a macro level in several ways: by positively influencing public health, by reducing health-care costs and by more effective prevention. This should stimulate healthcare organisations and national and international healthcare policy to build mechanisms and organisational structures that stimulate development of continuity, since there is a tension between high access and high continuity. To develop future primary care which is comprehensive, multi-disciplinary patient-centred and community oriented, continuity should be included as a core element.

Continuity is complex to achieve and measure and further research is needed to develop methods for creating and assessing continuity, as well as studying which organisational structures improve interpersonal continuity in primary care.

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FUNDING

European Forum for Primary Care, Västra Götaland Region, Sweden.

PEER REVIEW

Commissioned; not externally peer reviewed.

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Received 4 April 2013 Accepted 4 May 2013