

Continuity of Care and Quality of Care - Inseparable Twin

Mohammed Al-Azri

Received: 13 March 2008

Accepted: 23 May 2008

From the Department of Family Medicine and Public Health,
College of Medicine and Health Sciences, Sultan Qaboos University

Address correspondence and reprint requests to:

Dr Mohammed Al-Azri, MD, MRCP (INT), MMedSc (Leeds), PhD (Leeds) Consultant,
Department of Family Medicine and Public Health, College of Medicine and Health Sciences,
Sultan Qaboos University, P. O. Box 35, Postal Code 123, Sultanate of Oman.

E-mail: mhalazri@squ.edu.om

Continuity of care has been regarded as being fundamental to primary care and has been linked to improve quality of care. In this editorial, I will explore the impact of continuity of care on the quality of care and the mechanism of how quality helps to sustain continuity; recommendations for policy makers in the health care system to improve quality by promoting continuity will be outlined at the end.

Continuity of care has been regarded as a core value of primary care and as a fundamental part of the work of general practitioners around the world.¹⁻³ The Leeuwenhorst Group of

European General Practitioners has endorsed a frequently quoted definition of primary care and general practice: "The general practitioner is a licensed medical graduate who gives personal, primary and continuing care to individuals, families and a practice population irrespective of age, sex and illness. It is the synthesis of these functions which is unique".³ Nonetheless, continuity is a complex concept because it means several different things; hence many types of continuity have been identified which are defined in Table 1.

Table 1: Definitions of different types of continuity

Type of Continuity	Definition
Relational/ interpersonal*	An ongoing therapeutic relationship between a patient and one or more providers. ^{4,5}
Longitudinal*	Care from the same healthcare professional or as few professionals as possible, consistent with other needs. ⁴
Team	Care obtained from a group of healthcare professionals working in either primary or secondary care settings, providing consistent communication and co-ordination of care for their patients. ⁴
Cross-boundary	Care that follows the patient across settings (e.g. from primary to secondary care or vice versa). ⁴
Geographic	Care that is given or received in person on one site (office, home, hospital, etc). ^{5,6}
Informational	Information transfer that follows the patient. ⁴
Management	A consistent and coherent approach to the management of a health condition that is responsive to a patient's changing needs. ⁵
Experienced	The patient's judgement of co-ordinated and smooth progression of care. ⁴
Flexible	Services that are flexible and adjusted to the needs of the individual over time. ⁴

* Relational continuity and longitudinal continuity are not easy to distinguish from each other and are therefore often regarded as one type of continuity.^{5,7}

Throughout the world, good quality primary care improves health outcomes for the population,⁸ and continuity of care has been regarded as a crucial component of quality of care,^{9,10} as it influences both the process of care (interactions between users and services) and outcomes of care (consequences of care).¹¹ ¹² Indeed, continuity has been considered as a powerful factor affecting the outcomes and quality of care, such as prevention or reduction of physical, mental, and social disabilities, increased patient satisfaction and reduced aggregate healthcare spending.¹³

Studies have shown that continuity is associated with control of blood pressure, cholesterol and smoking cessation,^{14,15} improved immunizations and recognition of psychosocial problems in children,^{16,17} improved compliance with medication prescriptions,^{18,19} improved physician recognition of physical and psychosocial problems,^{20, 21} reduced risk of suicide,²² reduced rates of hospital admissions,²³ and utilization of emergency departments.²⁴ Patients who have continuity with the same doctor were satisfied with their care,²⁵ more likely to keep follow-up appointments,²⁶ and communicated better with their doctor.²⁷ Additionally, patients rank continuity as a high priority in their medical care.^{28, 29}

Another potential benefit of continuity is that it might improve the quality of care for patients with chronic conditions, such as hypertension and diabetes. Continuity with the same doctor for hypertensive patients was associated with a lower chance of developing hypertension-related complications, such as stroke, congestive heart failure and acute myocardial infarction.³⁰ Also, patients with Type 2 diabetes who identified a regular doctor for their diabetes have better glycaemic control as they were more likely to test their glycosylated haemoglobin (HbA1c) frequently, to have more foot, cholesterol and retinal examinations and to be on insulin earlier if needed; they were also more likely to follow dietary advice and to monitor their blood glucose level at home.³¹

The continuing relationship between the general practitioner and the patient allows the doctor to build up a picture piece by piece over the years. Although this picture would never be complete, as it takes shape, each episode of illness may take on

a quite different significance when seen as part of the whole. The trust and confidence which occur in continuity may make patients more likely to adhere to the doctor's recommendations,³² giving better control of their problem and improving quality of care. Indeed, patients who reported good outcomes of care are likely to be more satisfied, and those that are more satisfied were likely to maintain continuity with their doctor.³³ On the other hand, the doctor who maintains continuity might understand the patients' views of their condition better, influencing self-care and, thereby, improving outcomes.¹¹ This management is likely to be easier because, the doctor would be more likely to know when tests are needed and when treatment changes are indicated.

Indeed, patients with chronic conditions who have a regular primary provider will receive more intensive care, and achieve better control for their condition than patients with no regular provider. Freeman commented that "a true team rather than just a collection of individuals may find it difficult to build a personal relationship with a patient".³⁴ Thus, the majority of general practitioners and patients with chronic conditions preferred continuity with the same doctor, as it gives a better context to monitor their condition and modify management accordingly; it also could provide patients with more psychosocial care.^{7, 29, 35}

In conclusion, the majority of studies have shown that continuity of care has a major effect on the outcomes; hence on the quality of care. There were certain elements in continuity between the patients and their doctors, such as trust, confidence, good communication and rapport that can make patients adhere better to recommendations. This in turn could increase patients and doctors satisfaction about services and managements leading to maintain continuity. Thus, if healthcare professionals and policy makers in any healthcare system are concerned about quality of care, the continuity between patients and their usual healthcare professionals should not be threatened. Moreover the absence of continuity can compromise effectiveness, decrease efficiency and reduce the quality of interpersonal relations. This means that the health care system should ensure that patients are able to see their regular doctor whenever possible.

References

- Royal College of General Practitioners. The educational needs of the future general practitioner. *J R Coll Gen Pract* 1969 Dec;18(89):358-360.
- The National Commission on Community Health Services. Health is a community affair 1966. Harvard University Press, Cambridge, USA.
- Leeuwenhorst Working Party. The General Practitioner in Europe. Leeuwenhorst Working Party 1974, Netherlands.
- Freeman G, Shepper S, Robinson I, Ehrlich K, Richards S. Continuity of Care: Report of a Scoping Exercise for The National Co-ordinating Centre for NHS Service Delivery and Organisation R&D (NHSCCSDO). London: NCCSDO 2001. <http://www.sdo.nihr.ac.uk/files/project/2-final-report.pdf> (Accessed 22 Sept 2006).
- Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R. Continuity of care: a multidisciplinary review. *BMJ* 2003 Nov;327(7425):1219-1221.
- Saultz JW. Defining and measuring interpersonal continuity of care. *Ann Fam Med* 2003 Sep-Oct;1(3):134-143.
- Baker R, Boulton M, Windridge K, Tarrant C, Bankart J, Freeman GK. Interpersonal continuity of care: a cross-sectional survey of primary care patients' preferences and their experiences. *Br J Gen Pract* 2007 Apr;57(537):283-289.
- Starfield B. Primary care and health. A cross-national comparison. *JAMA* 1991 Oct;266(16):2268-2271.
- Roland M. James MacKenzie lecture 1998. Quality and efficiency: enemies or partners? *Br J Gen Pract* 1999 Feb;49(439):140-143.
- Campbell SM, Roland MO, Buetow SA. Defining quality of care. *Soc Sci Med* 2000 Dec;51(11):1611-1625.
- O'Connor PJ, Desai J, Rush WA, Cherney LM, Solberg LI, Bishop DB. Is having a regular provider of diabetes care related to intensity of care and glycemic control? *J Fam Pract* 1998 Oct;47(4):290-297.
- Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, et al. Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001 Oct;323(7316):784-787.
- Gonnella JS, Herman MW. Continuity of care. *JAMA* 1980 Jan;243(4):352-354.
- Steven ID, Dickens E, Thomas SA, Browning C, Eckerman E. Preventive care and continuity of attendance. Is there a risk? *Aust Fam Physician* 1998 Jan;27(Suppl 1):S44-S46.
- Lackland DT, Egan BM. Lack of Continuous Care is Associated with Higher Rates of Stroke in Hypertensive Medicaid Beneficiaries. *Am J Hypertens* 2002;15:A142.
- Kelleher KJ, Childs GE, Wasserman RC, McInerney TK, Nutting PA, Gardner WP. Insurance status and recognition of psychosocial problems. A report from the Pediatric Research in Office Settings and the Ambulatory Sentinel Practice Networks. *Arch Pediatr Adolesc Med* 1997 Nov;151(11):1109-1115.
- Christakis DA, Mell L, Wright JA, Davis R, Connell FA. The association between greater continuity of care and timely measles-mumps-rubella vaccination. *Am J Public Health* 2000 Jun;90(6):962-965.
- Becker MH, Drachman RH, Kirscht JP. Predicting mothers' compliance with pediatric medical regimens. *J Pediatr* 1972 Oct;81(4):843-854.
- Charney E, Bynum R, Eldredge D, Frank D, MacWhinney JB, McNabb N, et al. How well do patients take oral penicillin? A collaborative study in private practice. *Pediatrics* 1967 Aug;40(2):188-195.
- Blankfield RP, Kelly RB, Alemagno SA, King CM. Continuity of care in a family practice residency program. Impact on physician satisfaction. *J Fam Pract* 1990 Jul;31(1):69-73.
- Ettner SL. The relationship between continuity of care and the health behaviors of patients: does having a usual physician make a difference? *Med Care* 1999 Jun;37(6):547-555.
- Hultén A, Wasserman D. Lack of continuity—a problem in the care of young suicides. *Acta Psychiatr Scand* 1998 May;97(5):326-333.
- Gill JM, Mainous AG III. The role of provider continuity in preventing hospitalizations. *Arch Fam Med* 1998 Jul-Aug;7(4):352-357.
- Gill JM, Mainous AG III, Nserekwe M. The effect of continuity of care on emergency department use. *Arch Fam Med* 2000 Apr;9(4):333-338.
- Alazri MH, Neal RD. The association between satisfaction with services provided in primary care and outcomes in Type 2 diabetes mellitus. *Diabet Med* 2003 Jun;20(6):486-490.
- Sweeney KG, Gray DP. Patients who do not receive continuity of care from their general practitioner—are they a vulnerable group? *Br J Gen Pract* 1995 Mar;45(392):133-135.
- Love MM, Mainous AG III, Talbert JC, Hager GL. Continuity of care and the physician-patient relationship: the importance of continuity for adult patients with asthma. *J Fam Pract* 2000 Nov;49(11):998-1004.
- Fletcher RH, O'Malley MS, Earp JA, Littleton TA, Fletcher SW, Greganti MA, et al. Patients' priorities for medical care. *Med Care* 1983 Feb;21(2):234-242.
- Alazri MH, Neal RD, Heywood P, Leese B. Patients' experiences of continuity in the care of type 2 diabetes: a focus group study in primary care. *Br J Gen Pract* 2006 Jul;56(528):488-495.
- Shea S, Misra D, Ehrlich MH, Field L, Francis CK. Predisposing factors for severe, uncontrolled hypertension in an inner-city minority population. *N Engl J Med* 1992 Sep;327(11):776-781.
- Hänninen J, Takala J, Keinänen-Kiukaanniemi S. Good continuity of care may improve quality of life in Type 2 diabetes. *Diabetes Res Clin Pract* 2001 Jan;51(1):21-27.
- Banahan BF Jr, Banahan BF III. Continuity as an attitudinal contract. *J Fam Pract* 1981 Apr;12(4):767-768.
- Hjortdahl P, Laerum E. Continuity of care in general practice: effect on patient satisfaction. *BMJ* 1992 May;304(6837):1287-1290.
- Freeman GK. The concept of continuity of care in European General Practice. *Eur J Gen Pract* 2000;6:118-119.
- Alazri MH, Heywood P, Neal RD, Leese BU. UK GPs' and practice nurses' views of continuity of care for patients with type 2 diabetes. *Fam Pract* 2007 Apr;24(2):128-137.