Continuity of care: a multidisciplinary review

Jeannie L Haggerty, Robert J Reid, George K Freeman, Barbara H Starfield, Carol E Adair, Rachael McKendry

The concept—and reality—of continuity of care crosses disciplinary and organisational boundaries. The common definitions provided here should help healthcare providers evaluate continuity more rigorously and improve communication.

Patients are increasingly seen by an array of providers in a wide variety of organisations and places, raising concerns about fragmentation of care. Policy reports and charters worldwide urge a concerted effort to enhance continuity,1–3 but efforts to describe the problem or formulate solutions are complicated by the lack of consensus on the definition of continuity. To add to the confusion, other terms such as continuum of care, coordination of care, discharge planning, case management, integration of services, and seamless care are often used synonymously. This synthesis was commissioned by three Canadian health services policy and research bodies. The aim was to develop a common understanding of the concept of continuity as a basis for valid and reliable measurement of practice in different settings.

Assessing the literature

We searched academic and policy literature for documents in which the principal focus was continuity of patient care or continuity. We searched electronic databases (Medline, HealthSTAR, Embase, CINAHL, Current Contents, PsychINFO, AIDSLINE, CancerLit, Cochrane Library, Dissertation abstracts, Papers1st (conferences and paper abstracts), Web of Science, WorldCat) as well as web library catalogues, peer reviewed internet sites, internet search engines, and several in-house databases. The search included documents dated from 1966 to November 2001 written in English, French, or Spanish. The reviewers (RJR, JLH, RMcK) used a data abstraction form to summarise relevant documents from every health discipline, and all reviewers read key documents.

We presented the results of an initial review of 314 documents to participants of a workshop on continuity held in Vancouver in June 2001. We obtained structured feedback to a discussion paper, problem based scenarios, and expert presentations. Participants validated the common themes and proposed features of continuity that did not emerge from the literature but are relevant to clinical practice—for example, dimensions of continuity relationships when care is received from multiple providers.

We identified 2439 unique documents and reviewed 583 (see bmj.com for references). Of these, 226 (39%) were in primary medical care, 109 (19%) in mental health care, 92 (16%) in disease specific care, and 74 (13%) in nursing; another 61 (10%) fell outside these domains, and 21 (4%) focused solely on measures of continuity. The search results and full reports are available on the Canadian Health Services Research Foundation website (www.chsrf.ca/docs/finalrpts/index_e.shtml#comre).

Emphases of different healthcare domains

Primary care

Continuity in primary care literature is mainly viewed as the relationship between a single practitioner and a patient that extends beyond specific episodes of illness or disease.4–6 Continuity implies a sense of affiliation between patients and their practitioners (my doctor or my patient), often expressed in terms of an implicit contract of loyalty by the patient and clinical responsibility by the provider.7 The affiliation is sometimes referred to as longitudinality,8 relational,9,10 or personal continuity,11 and it fosters improved communication, trust, and a sustained sense of responsibility.11

In family medicine, continuity is different from coordination of care, although better coordination follows from continuity. By contrast, a trade-off is required between accessibility of healthcare providers and continuity.4,12

Department of Health Policy and Management, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, MD 21205, USA
Barbara H Starfield distinguished professor

Centre for Primary Care and Social Medicine, Imperial College of Science, Medicine, Technology, London W6 8RP
George K Freeman professor of general practice

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Medicine, Université de Montréal, Hôpital Notre-Dame Z910, 1560 Sherbrooke East, Montréal, QC, Canada H2L 4M1
Jeannie L Haggerty assistant professor

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Continuity in primary care literature is mainly viewed as the relationship between a single practitioner and a patient that extends beyond specific episodes of illness or disease.4–6 Continuity implies a sense of affiliation between patients and their practitioners (my doctor or my patient), often expressed in terms of an implicit contract of loyalty by the patient and clinical responsibility by the provider.7 The affiliation is sometimes referred to as longitudinality, relational,9,10 or personal continuity, and it fosters improved communication, trust, and a sustained sense of responsibility.11

In family medicine, continuity is different from coordination of care, although better coordination follows from continuity. By contrast, a trade-off is required between accessibility of healthcare providers and continuity.4,12

Department of Health Policy and Management, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, MD 21205, USA
Barbara H Starfield distinguished professor

Centre for Primary Care and Social Medicine, Imperial College of Science, Medicine, Technology, London W6 8RP
George K Freeman professor of general practice

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Medicine, Université de Montréal, Hôpital Notre-Dame Z910, 1560 Sherbrooke East, Montréal, QC, Canada H2L 4M1
Jeannie L Haggerty assistant professor

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Health Policy and Management, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, MD 21205, USA
Barbara H Starfield distinguished professor

Centre for Primary Care and Social Medicine, Imperial College of Science, Medicine, Technology, London W6 8RP
George K Freeman professor of general practice

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Medicine, Université de Montréal, Hôpital Notre-Dame Z910, 1560 Sherbrooke East, Montréal, QC, Canada H2L 4M1
Jeannie L Haggerty assistant professor

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Health Policy and Management, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, MD 21205, USA
Barbara H Starfield distinguished professor

Centre for Primary Care and Social Medicine, Imperial College of Science, Medicine, Technology, London W6 8RP
George K Freeman professor of general practice

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant

Department of Medicine, Université de Montréal, Hôpital Notre-Dame Z910, 1560 Sherbrooke East, Montréal, QC, Canada H2L 4M1
Jeannie L Haggerty assistant professor

Centre for Health Services and Policy Research, Vancouver, BC, Canada V6T 1W6
Robert J Reid assistant professor
Rachael McKendry research assistant
Mental health
Mental healthcare literature emphasises coordination of services and the stability of patient-provider relationships over time. Unlike primary care, the relationship is typically established with a team rather than a single provider. Care provided by different professionals is coordinated through a common purpose and plan. Care plans are important tools for bridging current and past care and for arranging for future needs. The plans should remain flexible to accommodate changes in patients' needs and circumstances.

Coordination often extends to social services such as housing and employment, and case managers are appointed to facilitate both health and social services. A unique feature in mental health is continuity of contact, where the care team maintains contact with patients, monitors their progress, and facilitates access to needed services. Consequently, access is often included as a dimension of continuity, and issues of continuity and accessibility are closely entwined.

Nursing
The nursing literature emphasises information transfer and coordination of care over time. The emphasis is on communication between nurses. The goal is to maintain a consistent approach to care between nurses and to personalise care to the patient's changing needs during an illness. Most continuity literature in nursing relates to discharge planning after acute care, usually from hospital to community or self care.

Disease management
Explicit concern for continuity in medical specialties has emerged since the late 1980s, reflecting the increased complexity of managing long term diseases such as HIV and AIDS, diabetes, cardiovascular diseases, rheumatological conditions, and cancer. Continuity is seen as the delivery of services by different providers in a coherent, logical, and timely fashion and is often referred to as a continuum of care. The specialty literature emphasises the content of care protocols or management strategies, with relatively little attention to the processes required for implementation.

Two core elements
Of the five common themes that emerged across all disciplines, two distinguish continuity from other healthcare attributes and set explicit guidelines for measurement. These elements are care of an individual patient and care delivered over time. Both elements must be present for continuity to exist, but their presence alone is not sufficient to constitute continuity.

The first element, care of an individual patient, distinguishes continuity from attributes such as integration of services and coordination, which are often used interchangeably with continuity. Although patients' individual experiences can be aggregated to the group level—such as doctors' practices, hospital wards, or healthcare organisations—the unit of measurement of continuity is fundamentally the individual. Continuity is not an attribute of providers or organisations. Continuity is how individual patients experience integration of services and coordination.

The second element, care over time, has been identified consistently as a longitudinal or chronological dimension of continuity. We believe it is not a dimension but an intrinsic part of continuity. The time frame may be short, such as a single hospital admission, or long, such as the open ended relationships of primary or long term care. Time distinguishes continuity from other attributes such as the quality of the interpersonal communication during a single clinical encounter.

Many measures focus on chronological patterns of care without directly measuring experienced continuity or those aspects of care that translate into connected and coherent care. Unless we understand the mechanisms through which care delivered over time improves outcomes, continuity interventions may be misdirected or inappropriately evaluated.

Three types of continuity
We identified three types of continuity in every discipline—informational, management, and relational (box). The importance attached to each type differs according to the providers and the context of care, and each can be viewed from either a person focused or disease focused perspective.

Informational continuity—Information is the common thread linking care from one provider to another and from one healthcare event to another. Information can be disease or person focused. Documented information tends to focus on the medical condition, but knowledge about the patient’s preferences, values, and context is equally important for bridging separate care events and ensuring that services are responsive to needs. This type of knowledge is usually accumulated in the memory of providers who interact with the patient.

Management continuity is especially important in chronic or complex clinical diseases that require management from several providers who could potentially work at cross purposes. Continuity is achieved when services are delivered in a complementary and timely manner. Shared management plans or care protocols facilitate management continuity, providing a sense of predictability and security in future care for both patients and providers. In mental health care, continuity of contact (expressed as access) embodies the notion that regular contact is needed to ensure management goals are adapted and met and that providers must often facilitate access to a broad range of services. Flexibility in adapting care to changes in an individual's needs and circumstances is an important aspect of management continuity. When care is long term, both consistency and flexibility are critical for management continuity.

Relational continuity bridges not only past to current care but also provides a link to future care. This is most
Continuity is the degree to which a series of discrete healthcare events is experienced as coherent and connected and consistent with the patient's medical needs and personal context.

Continuity of care is distinguished from other attributes of care by two core elements—care over time and the focus on individual patients.

Three types of continuity exist in all settings: informational, management, and relational.

The emphasis on each type of continuity differs depending on the type and setting of care.

Summary points

- Continuity of care is valued in primary and mental health care. Even in contexts where there is little expectation of establishing ongoing relationships with multiple care givers, such as inpatient and nursing home care services, a consistent core of staff provides patients with a sense of predictability and coherence.

Conclusion

Although previous reviews have examined continuity in a single discipline, our review has led to an understanding that transcends disciplinary and organizational boundaries and lays the groundwork for valid and reliable measures of continuity. Continuity of care is achieved by bridging discrete elements in the care pathway—whether different episodes, interventions by different providers, or changes in illness status—as well as by supporting aspects that endure intrinsically over time, such as patients’ values, sustained relationships, and care plans.

Processes designed to improve continuity—for example, care pathways and case management—do not themselves equate to continuity. For continuity to exist, care must be experienced as connected and coherent.

For patients and their families, the experience of continuity is the perception that providers know what has happened before, that different providers agree on a management plan, and that a provider who knows them will care for them in the future. For providers, the experience of continuity relates to their perception that they have sufficient knowledge and information about a patient to best apply their professional competence and the confidence that their care inputs will be recognised and pursued by other providers. The experience of continuity may differ for the patient and the providers, posing a challenge to evaluators.

Although the notion of continuity varies in different care contexts, we hope this synthesis will help all providers to understand how other disciplines conceive continuity and to avoid confusion by using terms that are universally recognised. Whatever the context, all types of continuity can contribute to better quality of care.

We thank Mary-Doug Wright for systematic searches of the computerised databases and Kimberly McGraile for helping plan the document abstraction tool. Donna Lynn Smith for guidance on the nursing viewpoint, Rick Hudson for insight into the policymaker’s perspective, Louise Lapierre for liaising with funders and providing contact information on researchers and policymakers, and Jane Coutts for editing the discussion papers and final document.

Contributors: JLH and RJR participated in the conception and design of the literature review and selected documents to be retrieved. RMcK collected the data, managed the databases, and analysed results. JLH, RFR, and RMcK read and abstracted the documents and analysed and interpreted the content. GKF, BHS, and CEA gave presentations at the workshop summarising the conceptual and measurement work in their areas of expertise, participated in formal and informal discussions on the concepts of continuity, and critically assessed drafts of the full report. JLH wrote the initial draft of the article and integrated feedback from coauthors.

Funding: This study was commissioned by the Canadian Health Services Research Foundation, the Canadian Institute for Health Information, and the Advisory Committee on Health Services of the Federal-Provincial/Territorial Deputy Ministers of Health of Canada. Representatives from these institutions participated in the policy synthesis workshop, but the funders did not otherwise influence the results or contribute to this manuscript. RFR was supported as a scholar by the Michael Smith Foundation for Health Research. GKF’s contribution was based on work funded by the NHS Service Delivery and Organisation Research and Development Programme. BHS was supported in part by Grant No 6 U350 CS 00189-05 St 1 R1 of the Bureau of Primary Health Care, Health Resources and Services Administration, Department of Health and Human Services.

Competing interests: None declared.


15 Johnson S, Proser D, Bindman J. Standardized nomenclatures: keys to continuity and final document.


