Continuity in the academic family medicine teaching environment

Exploring the potential of the CFPC's Patient's Medical Home

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Continuity is at the heart of family medicine, and its benefits are many: increased efficiency, improved health outcomes, enhanced trust, and increased satisfaction for both patient and physician.[1-8] Continuity is also a pillar of the Patient's Medical Home (PMH) model developed by the College of Family Physicians of Canada, yet it can be challenging to achieve in academic teaching environments.[9-11]

Continuity is also a central element of the College's Triple C curriculum framework.[12] The move to competency-based medical education, with its systems of graduated supervision, places greater emphasis on the longitudinal resident-preceptor relationship. Residency programs across Canada must aim to meet this standard, but the path to achieving continuity in education is strewn with practical problems. Many authors have attempted to define continuity and find solutions for its challenges, but we have yet to find a consensus on what it should mean, what it should look like, or how it should be implemented.[13,14]

In this commentary, we will review the concepts of continuity in patient care and continuity in education, and the challenges of their execution in an academic setting. We will discuss the opportunities within and outside the PMH model to bring together continuity for both patient care and resident education.

Continuity of care in the clinical setting

Although continuity has traditionally been viewed as following patients over time, in different settings, and experiencing relationships and responsibility of care, continuity as a concept has multiple dimensions. According to a widely embraced definition from the Canadian Health Services Research Foundation, there are 3 types of continuity of health care: informational continuity, management continuity, and relational continuity[15]:

- *Informational continuity for clinical care* involves the seamless flow of information linking the care from one provider to another across care settings.
- *Management continuity for clinical care* is defined as consistent patient-centred management of health conditions across care settings. Management continuity is achieved when services are delivered in a harmonious and timely manner, as well as when management plans are communicated between different teams to provide consistency for the patient.
- *Relational continuity for clinical care* consists of the maintenance of ongoing therapeutic relationships between a patient and one or more care providers across care settings. It is considered one of the strongest predictors of positive physician satisfaction and patient outcomes.[2-4,7]

Continuity in the educational setting

Recognizing that continuity in the learning environment is also multifaceted, Bowen et al argue that its dimensions can be viewed in a manner analogous to those of continuity in clinical care[11]:

- *Informational continuity for learning* involves the need for learners to track learning from their patient encounters across a variety of care settings, ideally within an electronic portfolio. The ability of residents and their competency coach to access a variety of information (field notes, in-training assessments, procedure logs, etc) facilitates educational planning and supports the graduated autonomy of learners.
- *Management continuity for learning* involves the development and periodic updating of a longitudinal educational plan for learners.
- *Relational continuity for learning* emphasizes the longitudinal relationships between residents and their preceptors, which are critical to the learners' experience.[16,17] Relational continuity for learning, which includes teaching and assessment, is facilitated by assigning a primary preceptor (or competency coach) and a small group of supervising family medicine faculty who will follow the resident throughout residency. In addition to facilitating the frequent observations required to support competency-based medical education approaches, relational continuity allows supervising faculty to better tailor their strategies in the context of the resident's needs and personal goals.[18,19]

Relational continuity for learning also extends to the clinical learning environment. Limiting the number and frequency of changes in learning sites provides residents more time to focus on learning rather than on becoming oriented to new environments every rotation.[12,18] Continuity of the clinical learning environment allows residents an opportunity to develop relationships with other professionals, thus fostering interprofessional learning and practice.[12,18]

Challenges of continuity in the academic family medicine environment

There are many factors affecting continuity of clinical care and continuity for learning in the academic family medicine environment, including patient preferences,

evolving models of care, scheduling and office processes, and educational program formats.

Although patients would prefer to see their regular providers for their care, they often trade off continuity for quick access to primary care.[20,21] In a recent study comparing multiple attributes of primary care clinic access, researchers found that patient choices for appointment bookings were primarily influenced by the speed of getting the appointment (access), followed by the professional position of the provider (family doctor, resident, nurse, or nurse practitioner), and the patient's familiarity with the provider (continuity).[21]

New models of care have promoted team-based approaches to expand access to care and to gain efficiencies by allowing other health professionals to work to a fuller scope. In these models, patients do not always see their own family physicians (or family medicine residents) but interact with other team members. In these new models, family physicians, residents, and their teams must become skilled at optimizing other dimensions for continuity (*informational continuity for clinical care* and *management continuity for clinical care*).

For a number of reasons, including the need to maintain their personal wellness, family physicians are increasingly choosing part-time work. Those working in academic environments must further divide their time between clinical work and the range of academic activities necessary to maintain and advance the discipline. In addition to reducing these family physicians' availability to patients, part-time clinical practice limits the time they have available to supervise residents.

Resident scheduling in a 2-year family medicine residency program creates challenges in developing continuity of care.[18,22] To develop a genuine appreciation of the value of relational continuity for clinical care often requires multiple patient-physician encounters over an extended period. Many residencies in Canada work as "block" residencies, whereby residents change specialty areas, locations, and preceptors as often as every month. Residency programs have attempted to mitigate the problems with part-time presence in clinic in many ways. Some have created a "half-day back" for learners to return to their family medicine clinic on a weekly basis while they are on other discipline-specific rotations. This strategy has numerous logistic challenges and has had mixed results in terms of continuity.[12] Some programs have adopted the "mini-blocks" system, with 2-week scheduling intervals.[23] Others have chosen horizontal experiences, where a resident spends half the day in hospital and the other half in clinic,[24] or have "max-packed" clinic time into 12 consecutive months of family medicine.[22,24] Unfortunately, it is unclear which format is most favourable for continuity, and it is likely that many factors in individual residency programs make one particular format better than others for them.

Dealing with challenges and exploring new opportunities

The redesign of primary care practices to PMH models of care is changing our learning environments. Below, we offer 4 recommendations to maximize the opportunity for academic PMHs to support all dimensions for clinical and educational continuity.

Ensure that residents understand and value continuity in the PMH model. Although continuity is a core value, teaching how to optimize continuity in the clinical environment (both for family medicine rotations and off-service rotations) is not part of the formal curriculum. Teaching and implementing strategies to ensure optimal informational, management, and relational continuity should be integrated into the residency curriculum, ideally as a component of a larger residency curriculum on the PMH.

Ensure patients' needs are at the centre. Academic primary care sites should embrace the PMH model as a way of enabling and fostering long-term relationships between patients and the care team (which includes the family medicine resident), thereby ensuring continuous care over the patient's lifespan. By optimizing informational and management continuity, the care site ensures its role as the coordinator of all the medical services their patients receive throughout the medical community. In terms of relational continuity, practices should ensure scheduling and office processes that optimize not only patients' access but also continuity with their main provider and the provider's team.

Academic PMH teams should, whenever possible, aim to ensure that continuity of care is provided for their patients across different settings, including the office, the hospital, long-term care, and the patient's home. This effort should include the judicious use of technologies for virtual care to support continuity.

Embrace the interprofessional model for clinical and educational continuity. The individual patient-physician relationship has traditionally been the focus for measures of continuity, but it is time to shift some attention to also measuring patient continuity with the team, to better reflect the growing importance of interprofessional collaborative practice in the PMH model. Micro-teams, small interprofessional teams responsible for the care of a common patient panel, are a promising model to increase relational, management, and informational continuity of care, as well as educational continuity.[22,24,25] Ideally, residents would have longitudinal continuity with a core interprofessional primary care practice team that would include a core group of supervising faculty. As Bowen et al have previously recommended, residents should be integral to the team, caring for the team's panel of patients, whom they would understand as "their own."

Optimize residency scheduling for continuity. Based on their practice context, residency programs should

carefully reconsider their residency schedule formats, looking for opportunities to maximize continuity by reducing the number of transitions between different environments and teams when possible. When feasible, programs should integrate horizontal clinical experiences, ideally with the same clinical and supervising teams.

Conclusion

Continuity is a core clinical and educational value in family medicine and many factors make it difficult to achieve in academic teaching environments. By embracing the PMH models and making thoughtful changes in residency curricula, programs have an opportunity to optimize care for patients and ensure that all residents become skilled in, and experience the joys of, continuity of care.

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Competing interests
None declared

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Teaching tips

- Continuity is a pillar of the Patient's Medical Home (PMH) and the Triple C Competency-based Curriculum framework and provides multiple benefits. However, many factors make it difficult to achieve in academic teaching environments.
- The dimensions of continuity in the academic learning environment are similar to those of continuity in clinical care, involving informational, management, and relational continuity for learning. Relational continuity for learning also extends to the clinical learning environment.
- The redesign of primary care practices to PMH models of care is changing the learning environment. Patient preferences, scheduling and office processes, the formats of educational programs, and other factors play a role in achieving continuity of care in the learning environment.
- Academic primary care sites can maximize the opportunity to support all dimensions for clinical and educational continuity by ensuring that residents understand and value continuity; by embracing the PMH model and ensuring patients' needs are at the centre; by embracing interprofessional collaboration; and by optimizing residency scheduling for continuity. Thoughtful changes in residency curricula might give programs an opportunity to optimize care for patients and ensure that all residents become skilled in, and experience the joys of, continuity of care.

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