Facilitator: Bonnie Miller, MD
Discussant: Daniel West, MD

Learning From Patients: Why Continuity Matters

Sevinj Asgarova, MA, Mark MacKenzie, MD, and Joanna Bates, MDCM

Abstract

Purpose
Patient continuity, described as the student participating in the provision of comprehensive care of patients over time, may offer particular opportunities for student learning. The aim of this study was to describe how students experience patient continuity and what they learn from it.

Method
An interpretive phenomenological study was conducted between 2015 and 2016. Seventeen fourth-year medical students were interviewed following a longitudinal clinical placement and asked to describe their experiences of patient continuity and what they learned from each experience. Transcripts were analyzed by iteratively refining and testing codes, using health system definitions of patient continuity as sensitizing concepts to develop descriptive themes.

Results
Students described three different forms of patient continuity. Continuity of care, or relational continuity, enabled students to build trusting and professional relationships with their patients. Geographical continuity allowed students to access information about patients from electronic records and their preceptors which allowed students to achieve diagnostic closure and learn to reevaluate their decisions. Students valued the learning that accrued from following challenging patients and addressing challenging decisions over time. Although difficult, these patient continuity experiences led students to critical reflection that was both iterative and deep, leading to intentions for future behavior.

Conclusions
Patient continuity in medical education does not depend solely on face-to-face continuity. Within various patient continuity experiences, following challenging patients and experiencing unanticipated diagnostic and management outcomes trigger critical reflection in students, leading to deep learning.

Interactions with patients form the foundation of medical student clinical learning,[1] yet these interactions are frequently transitory.[2] In block rotations, patients swim in and out of students' professional lives, resulting in only brief opportunities for students to practice their diagnostic reasoning and communication skills. Without being able to follow a patient over time, students struggle to build ongoing relationships with patients, they may fail to understand the depths of an illness experience, and they frequently do not see the outcomes of clinical decisions.

S. Asgarova is a doctoral candidate, School of Social Work, University of British Columbia, Vancouver, British Columbia, Canada.

M. MacKenzie is clinical associate professor, Department of Family Practice, Faculty of Medicine, British Columbia, Vancouver, British Columbia, Canada.

J. Bates is professor, Department of Family Practice, and scientist, Centre for Health Education Scholarship, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada.

Correspondence should be addressed to Joanna Bates, Centre for Health Education Scholarship, Faculty of Medicine, University of British Columbia, 429-2194 Health Sciences Mall, Vancouver, BC Canada V6T 1Z3; telephone: (604) 822-8685; e-mail: joanna.bates@ubc.ca.

Acad Med. 2017;92:S55–S60.
doi: 10.1097/ACM.0000000000001911

Background

Patient continuity in medical education is where students participate in comprehensive care of patients over time.[3] Increased patient continuity can enhance physician training by anchoring clinical education in caregiving and strengthening students' appreciation of their professional responsibilities to take care of patients.[4] Graduate medical education programs in disciplines such as family medicine and psychiatry are configured to afford significant patient continuity.[5,6] However, patient continuity has been harder to achieve for undergraduate learners.[7]

In response to this and other discontinuities, many medical schools have implemented longitudinal placements, including longitudinal integrated clerkships (LICs).[8–12] LICs are usually designed to create continuity of curriculum, integration of learning across disciplines, and ongoing experience with both preceptors and training contexts.[13] It has been noted that LIC students tend to experience more patient continuity than block-based students[14] and are more likely to establish meaningful patient relationships.[15] Some LICs seek to enhance patient continuity through patient panels, where students follow specific patients throughout their clerkship.[10,11] This can provide opportunities for students to accompany patients on their journey through the health care system,[15] which can deepen learners' sense of professional responsibility and how to navigate interpersonal student–patient boundaries.[16]

However, it can be hard to disentangle the effects of patient continuity from other forms of continuity in LICs.[17] Despite initial insights,[3] explanatory models for how students learn from patient continuity are lacking.[3] Our aim in this study was to describe how students experience patient continuity

Table 1
University of British Columbia (UBC) Longitudinal Integrated Clerkship Sites

Site	Year first implemented	Community population	Distance from UBC	Students per year
A	2004	77,936	69 miles	6
B	2008	11,486	848 miles	3
C	2009	18,609	765 miles	3
D	2010	4,932	65 miles	4
E	2011	7,681	395 miles	4
F	2011	40,000	280 miles	3

and what and how they learn from it. More specifically, the study explored the question: How do students build patient continuity, and what do they learn from their experiences with patient continuity?

Method

Given that patient care continuity is a fundamental component of LICs, we set our study in the University of British Columbia (UBC) LIC.[18] UBC is a graduate-entry, four-year medical school, with a third-year clerkship. Students self-select into an LIC clerkship for their third year. Six rural and regional communities now accept a total of 23 students per year into 12-month LICs (Table 1). Formal structures differ in each LIC setting, but all students have a local family physician as their primary preceptor. Formal patient panels are not a curricular expectation.

Ethics approval for this study was received from the Behavioural Research Ethics Board at UBC (H15-01615).

The research team included a social work doctoral student (S.A.), a family physician and qualitative medical education researcher (J.B.), and a family physician and director of the UBC LIC program (M.M.). We first inserted questions about patient continuity into a standard program evaluation questionnaire. LIC students in all sites confirmed that they saw patients repeatedly over time.

We then conducted an interpretive phenomenological study.[19] We developed an initial interview guide using students' answers from the questionnaire as a starting point. The guide outlined questions intended to explore each student's understanding and experiences of patient continuity, their associated learning processes, and outcomes (Appendix 1). We deliberately chose not to define patient continuity, instead allowing the participants to choose stories relevant to their own understanding.

We issued an e-mail invitation to participate to all fourth-year medical students who had completed an LIC the previous year (total eligible participants = 22).

Two members of the research team (J.B. and S.A.) conducted the first interview, debriefed, and then modified the interview guide. S.A. then conducted 16 further interviews by phone or face-to-face. Recorded interviews were transcribed, verified, and anonymized, and participants were assigned a pseudonym. Two members of the research team (J.B., S.A.) independently coded four selected transcripts to identify major themes and preliminary codes derived from the data. Codes were refined and tested iteratively, allowing broader interpretive themes to emerge. Different interpretations were discussed and reviewed until consensus was reached. We used sensitizing concepts of continuity from health care.[20] We used NVivo (version 11 Pro; QSR International, Burlington, Massachusetts) to organize the analysis.

Results

We interviewed all those who volunteered: a total of 17 students, 5 men and 12 women, drawn from six different sites, with at least 1 student from each site. Interviews lasted between 45 and 90 minutes.

We identified three interrelated themes in the data, each of which described a different form of patient continuity, how the student experienced it, and what he or she learned from it.

Theme 1: Relational continuity

Participants described how they followed patients with acute issues, chronic illness, and through pregnancy. Different strategies were used to provide these experiences including preceptors intentionally booking patients for follow-up when the student would be present again, students undertaking morning inpatient hospital rounds with preceptors, and encouraging students to make home visits and involve themselves in ongoing inpatient care. Repeated encounters fostered students' understanding of both the biomedical and psychosocial contexts of their patients. This helped them to better understand the effects of their patients' social and family conditions, and their values and fears regarding their health. Students learned how to build effective physician–patient relationships. They grew to understand the link between patients' trust in the physician and patient compliance. They learned to listen carefully, respond to patient concerns, treat the patient with respect, and provide care that was responsive to patients' particular needs. Students became keenly aware of the strengths and weaknesses in their relationships with patients. For instance:

> The lady who I followed for nine months and delivered her baby…. I got to know her and her family. I got to know her and her economic and social situations. I got to know what it meant for them to have this child and the struggles they had with their employer. (Gary Site C)

Students related to different patients in different ways. For instance, students felt particularly connected to patients close to them in age, educational interest, or background, or with those who presented problems in which they themselves were interested. This emotional connection could be rewarding; however, students had to determine how to manage these feelings of closeness and how to set boundaries that felt appropriate for themselves. In the following example, a student discusses whether she should have accepted an invitation to tea from an elderly couple who were patients:

> I never accepted the invitation for tea, even though I knew it was probably hurting them a fair amount. I wonder if I had accepted that—I think there might have been some people who would raise their eyebrows, but I think there would have been some who would have thought that was completely normal. So … you have to set your own boundaries, I think, and that can be challenging as a student. (Kate Site D)

Another student grappled with setting boundaries with a psychiatric patient, discussing her challenges with her preceptor:

> I didn't necessarily know how to act so that … there were patient care–provider boundaries. But I definitely went over it with my preceptor afterwards to figure out how to do that 'cause it was quite difficult. (Amy Site E)

The emotional connection to patients could also be distressing. For instance:

> Both the family doctors I worked with, we had some really good discussions about how difficult it can be sometimes when you have a long-term patient relationship and you can get attached to patients, and when things go wrong it can be difficult—for the patient, for their family, but also for you. (Maria Site F)

Students often experienced frustration when patients did not improve, or when they were unable to address their patients' specific problems. Students felt particularly frustrated when their patients had repetitive complaints but were unwilling to follow advice.

> The patients who you can't necessarily fix their problems, that can be very like frustrating…. But it can also be quite tough dealing with people on a continuity, continuous basis, when you're trying to encourage them to change something and they're not, when they're very difficult to motivate…. And it can be very frustrating and difficult to deal with that on a regular basis. (Maria Site F)

Students often found it more challenging to work with patients whose physical complaints were intertwined with mental health or emotional challenges. Longitudinal relationships required them to sort through underlying causes for patients' symptoms. Trained in a biomedical model, they were stretched to identify, acknowledge, and address the patient's underlying mental health issues.

> They had illnesses that we weren't entirely certain whether they were physical or whether they were mental, but the patients were convinced that they were physical and some of the patients were very challenging as individuals and challenging medically because we were working through is this actually a medical problem or is this kind of a manifestation of a mental illness that we need to address. (Dennis Site A)

Students were sometimes deliberately assigned a challenging patient by their preceptors, but many students also saw such patients repeatedly without specific planning. Students described very challenging patients as violent, aggressive, verbally rude, "boundary crossing," and exploitative of the students. Student found some patients' behaviors repellent, such as child abuse, animal torture, and criminal activities, including murder. Students admitted that they reacted negatively and lacked empathy for these patients, and they struggled to maintain a professional demeanor.

> He was abusing animals and admitted to maybe having an unhealthy attraction to kids. And so that was kind of uncomfortable news to receive. It was the first time I had received that kind of news from a patient, and so it was challenging then in the next two weeks to round on this person in the morning and try to be nonjudgmental and unbiased in the way that I approached getting information from him and playing whatever part I had in his care. (Henry Site B)

Despite challenges, they suggested that such patients helped them to grow as future physicians.

> But at the same time I think it was valuable to be in that position and sort of challenge myself to stay neutral and remain respectful. (Henry Site B)

> I think it's the difficult patients that do help you grow. I think the nice patients are just nice and they make you feel good and it's rewarding and fulfilling, but I think that the actual growth comes from difficult patients in that … you have to sort of analyze that dynamic and why you are responding the way you are responding to that patient…. I think that's when you actually do accept self-examination of why you feel that way. (Natalie Site E)

Theme 2: Knowing patients through multiple contexts

Students described adding to their information about patients in ways other than seeing patients face-to-face in health care settings. Students ran into patients in town, or saw them at a distance, interacting with their families and friends.

> Because it's a small town, you know, I would bump into patients on the street in the community. And particularly when you're seeing patients who are homeless—you get a sense of kind of where they hang out, what they're doing. (Henry Site B)

Seeing patients in these settings nuanced students' understanding of their patients and contextualized the impact of lifestyle, social, and family conditions on their patients' illness.

> A patient that came into the ER and was claiming to be, like on the straight and narrow and not drinking, and adhering to their medications and so on, I later saw in the community drinking a two-six kind of thing. And so it made me kind of reevaluate the history that I got initially. (Henry Site B)

Students kept track of their patients using the electronic medical record of the local hospital. As students tended to spend more time with each patient than physicians, they were able to attend more to details, recognizing significant changes in symptoms, identifying overlooked information, and sharing this knowledge with the health care team.

> When I saw her in the hospital and with the anesthesiologist, she didn't mention any of that to him, but because I knew that I was able to ask her about it so that the care plan that we created may fit more with her values. (Nancy Site A)

Over time, many medical students realized that gaps in record keeping and a lack of shared information about a patient could interfere with the care they received. They realized that simply accessing and reviewing their patients' prior medical data was not enough; they also needed to filter this information to focus on what would be most valuable in caring for the patient:

> I learned how to consult specialists and had to advocate for patient care and how important communication was throughout her hospitalization to ensure patient safety and to ensure that she was cared for by all these different specialists. (Vera Site F)

Theme 3: Diagnostic and management continuity

Both face-to-face patient continuity and patient information continuity enabled students to learn more about diagnostic and management outcomes. Participants reported following the same patient from the family practice clinic to the emergency room, through their time in hospital, and then back in the family practice clinic once they had been discharged. This allowed students to learn about diagnostic assessment, the evolution of illness, and the development and review of management plans.

> And so if I hadn't seen her the next day, I wouldn't have seen that diagnosis be made. So often in medicine you get to do an assessment, you get to come up with a plan, but you don't see how that plan is put into fruition or if that plan changes. (Kate Site D)

> I would just go back and review that until they were discharged from hospital, which was really helpful because then I could track their blood work to see if the fluids we gave them were helpful. (Neva Site A)

Even when students were not able to see patients in follow-up, they still were able to access some continuity by asking about their patients' final diagnosis and outcomes from other health professionals.

> It's absolutely empowering when you can see how the interventions that you do or the care that you provide impacts someone positive or negative, because then you know if it worked or not and you can learn from it. (Neva Site A)

This helped them develop an awareness of complexity of the diagnostic process and recognize when and why an incomplete workup or a missed diagnosis might be more likely. Although upsetting to students, episodes of overlooked diagnosis were particularly salient:

> I said no, you're just constipated and then they came back the next day and they had a bowel obstruction. And so, for me … maybe I need to be more careful about working that up more thoroughly like next time. (Sandra Site B)

Experience in ongoing management was crucially important when a patient's case was complex, when a patient suffered from chronic disease, or when a patient's illness could not be diagnosed in a single visit. Students acknowledged that making a diagnosis and crafting a treatment plan are only the first step in providing care. Patient continuity helped students to realize that despite a good bedside manner, a well-taken history, and thorough physical examination, positive patient outcomes were not always possible. Students learned to regularly reflect on their understanding of treatment plans for specific health conditions and on the potential outcomes of their prescribed treatments and their clinical decisions.

> I think seeing them regularly got me more involved in thinking about kind of the long-term outcomes and what we're going to do at this—planning kind of what was—I was going to do at each subsequent visit to get the outcome eventually, rather than oh I'll do this and then someone else will deal with it later. I think that was a really valuable aspect of it. (Maria Site F)

Students learned that patients' care needs varied and changed over time at various stages of disease and that it was important to respond to these circumstances quickly. Students learned to be flexible, reassessing their patients' needs and adjusting their care plans.

Throughout the LIC, and even after they had completed it, students focused more and more on their patients' outcomes, and they took the initiative to ask preceptors about patients with whom they were involved.

Discussion

Our study extends Walters and colleagues'[3] definition of patient continuity in medical education by describing various "processes" of patient continuity our students experienced in their clerkship. Embedded in small towns, they interacted with the same hospital, the same physicians, the same allied health, the same emergency room, and the same peers for the entire clerkship. In contrast to the usual large-urban rotational clerkships, in which students move from one hospital to another, these longitudinal experiences facilitated students' ability to harness geographical continuity to draw on a network of information and opportunities that facilitated longitudinal engagement with patients even in the absence of formal patient panels. Admittedly, this may be specific to the nature of this LIC. Embedded in small rural or regional communities over an extended time, the student became part of a boundaried community in which information flowed freely.[21]

Our findings align with those of others who have noted that students can build skills in developing an ongoing and trusting relationship with patients over time.[4,18] However, they struggled to set boundaries in the challenging context of a rural community, where professional relationships are more fluid.[22] Seeing the same patient repeatedly required students to grapple with the complexities of problem solving in clinical care, such as how and when to change a working diagnosis and management plans as patients respond or develop new symptoms. As others have noted, students learned about the importance of knowing the patient, of having full information about the patient, and of understanding the patient's situation when developing management plans.[4,18,23]

Although the characteristics of the more challenging patients are similar to those noted in other contexts,[24,25] these more challenging patients stimulated students to engage in critical reflection on their stereotypes and developing professional identities. In contrast to the students in Shapiro and colleagues' study,[24] in which students described themselves as "anxious, uncertain, confused, and frustrated" in dealing with these patients, students engaging with patients over an extended period of time described them as excellent opportunities for learning. These patients spurred students to learn to set boundaries, maintain professional relationships, and develop compassion.

Students in our study also spoke about the value of learning about the outcomes of their diagnoses, investigation, and management decisions. Unexpected outcomes were particularly salient opportunities for learning, requiring students to reconsider their earlier decisions. All trainees, whether students or residents, benefit from following patients long enough to witness the effects of their clinical treatment and learn from them.[4,26,27] Our students learned where and how decision making went wrong and considered the contribution to errors of factors such as fatigue and self-confidence.

Embedded in the students' descriptions of learning opportunities and outcomes were descriptions of informal reflection, often with a preceptor, triggered by a difficult patient or a difficult situation. Although they did not label this as "reflection," students described having to "think through" the meaning of their own feelings, reactions, and experiences. They described this as one of the processes by which real learning occurred. Reflection is defined as "a generic term for those intellectual and affective activities in which individuals engage to explore their

experiences in order to lead to a new understanding and appreciation."[28(p19)] Reflective ability is regarded by many as an essential characteristic for professional competence and is linked to deeper learning in undergraduate medical students.[29] Faced with difficult and challenging patients, medical students described struggling to maintain empathy. Faced with patients they cared for, they described struggling to set boundaries in a complex environment with no single correct answer. Faced with unexpected outcomes of patients' care, they described their own reasons for (and errors in) the decisions they and others made, at times recognizing and acknowledging drivers such as anxiety, worry about showing weakness to a preceptor, or lack of self-confidence. Their reflection was iterative, with the process of reflection triggered by an experience, leading to new understanding and plans to act differently in the future.[30] Their discussions in their interviews went beyond description alone, to analysis of their feelings and reactions, and to critical synthesis.[31] Such forms of reflection can be difficult to trigger, but appear to lead to more transformative learning.[31]

When discussing challenging patients and situations, students often included their longitudinal family physician preceptor in their descriptions of debriefing and discussion. This study was not designed to investigate the role of the preceptor in learning, only in facilitating patient continuity. However, we wonder whether the students' ongoing relationship with a preceptor may have facilitated their reflection about challenging patients and situations. The family practice preceptors appeared to provide the safe space for students to reflect on their difficulties and upset. Others have noted the importance of a safe supervisory relationship in enabling the trainee to engage in deep reflection.[28,32] The possible interweaving of learning from patient continuity with the support from a continuity preceptor deserves further examination as a mechanism for learning.

While this study took place at a single medical school, our participants studied in six different settings. Students self-selected into the LIC and, therefore, may have been more attuned to the utility of patient continuity and reflection than the average medical student. The central role of family practice preceptors in this LIC may reduce transferability of our study findings to longitudinal educational models in which students' longitudinal relationships are with specialist preceptors.

In spite of these limitations, understanding the different forms of patient continuity and their affordances for student learning can enable medical education programs to enhance different forms of continuity, even if interpersonal continuity may be unachievable except in longitudinal placements. Considering that medical schools are currently attempting different strategies for promoting reflective behavior in students, patient continuity certainly holds some promise, but only if students are challenged by patients and their outcomes within a supportive environment.

Conclusions

Medical student clerkship learning is inseparable from interaction with patients. Patient continuities—whether face-to-face or through information alone, whether through formal scheduled visits or serendipitous interactions in community settings—can afford useful learning outcomes. Learning occurs through reflection, triggered through the process of coming to understand who the patient is, and who the developing physician is in relation to the patient. Reflection may be supported by the ongoing relationship with a trusted preceptor, who can be an experienced and emotionally supportive sounding board for learners grappling with the multiple challenges and rewards that patient continuity can pose.

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: Approved by UBC Behavioural Research Ethics Board, certificate H15-01615.

Previous presentations: This study was presented at the University of British Columbia Centre for Health Education Scholarship, October 2016, Vancouver, British Columbia, Canada, and at the Consortium of Longitudinal Integrated Clerkships (CLIC) Conference 2016, October 2016, Toronto, Ontario, Canada.

References

1 Bleakley A, Bligh J. Students learning from patients: Let's get real in medical education. Adv Health Sci Educ Theory Pract. 2008;13:89–107.
2 Cooke M, Irby DM, Sullivan W, Ludmerer KM. American medical education 100 years after the Flexner report. N Engl J Med. 2006;355:1339–1344.
3 Walters L, Greenhill J, Richards J, et al. Outcomes of longitudinal integrated clinical placements for students, clinicians and society. Med Educ. 2012;46:1028–1041.
4 Hirsh DA, Ogur B, Thibault GE, Cox M. "Continuity" as an organizing principle for clinical education reform. N Engl J Med. 2007;356:858–866.
5 Kerr J, Walsh AE, Konkin J, et al. Continuity: Middle C—A very good place to start. Can Fam Physician. 2011;57:1355–1356, e457.
6 Bowen JL, Hirsh D, Aagaard E, et al. Advancing educational continuity in primary care residencies: An opportunity for patient-centered medical homes. Acad Med. 2015;90:587–593.
7 Ellaway RH, Graves L, Cummings BA. Dimensions of integration, continuity and longitudinality in clinical clerkships. Med Educ. 2016;50:912–921.
8 Strasser R, Hirsh D. Longitudinal integrated clerkships: Transforming medical education worldwide? Med Educ. 2011;45:436–437.
9 Worley P, Silagy C, Prideaux D, Newble D, Jones A. The parallel rural community curriculum: An integrated clinical curriculum based in rural general practice. Med Educ. 2000;34:558–565.
10 Ogur B, Hirsh D, Krupat E, Bor D. The Harvard Medical School–Cambridge integrated clerkship: An innovative model of clinical education. Acad Med. 2007;82:397–404.
11 Poncelet A, Bokser S, Calton B, et al. Development of a longitudinal integrated clerkship at an academic medical center. Med Educ Online. April 4, 2011;16. doi: 10.3402/meo.v16i0.5939.
12 Worley P, Couper I, Strasser R, et al; Consortium of Longitudinal Integrated Clerkships (CLIC) Research Collaborative. A typology of longitudinal integrated clerkships. Med Educ. 2016;50:922–932.
13 Norris TE, Schaad DC, DeWitt D, Ogur B, Hunt DD; Consortium of Longitudinal Integrated Clerkships. Longitudinal integrated clerkships for medical students: An innovation adopted by medical schools in Australia, Canada, South Africa, and the United States. Acad Med. 2009;84:902–907.
14 O'Brien BC, Poncelet AN, Hansen L, et al. Students' workplace learning in two clerkship models: A multi-site observational study. Med Educ. 2012;46:613–624.
15 Hirsh D, Gaufberg E, Ogur B, et al. Educational outcomes of the Harvard Medical School–Cambridge integrated clerkship: A way forward for medical education. Acad Med. 2012;87:643–650.
16 Denz-Penhey H, Shannon S, Murdoch CJ, Newbury JW. Do benefits accrue from longer rotations for students in rural clinical schools? Rural Remote Health. 2005;5:414.
17 Wamsley MA, Dubowitz N, Kohli P, Cooke M, O'Brien BC. Continuity in a longitudinal out-patient attachment for Year 3 medical students. Med Educ. 2009;43:895–906.
18 Fleming B, MacKenzie M. Integrated community clerkship: Medical education at UBC and the challenge of underserved communities. B C Med J. 2013;55(4):192–195.
19 Smith JA, Flowers P, Larkin M. Interpretative Phenomenological Analysis: Theory, Method and Research. Thousand Oaks, CA: SAGE; 2009.

20 Reid R, Haggerty JJ, McKendry R. Defusing the Confusion: Concepts and Measures of Continuity of Healthcare. Final Report. Ottawa, Ontario, Canada: 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; 2002. http://www.cfhi-fcass.ca/Migrated/PDF/ResearchReports/CommissionedResearch/cr_contcare_e.pdf. Accessed April 21 2017.

21 Konkin J, Suddards C. Creating stories to live by: Caring and professional identity formation in a longitudinal integrated clerkship. Adv Health Sci Educ Theory Pract. 2012;17:585–596.

22 Brooks KD, Eley DS, Pratt R, Zink T. Management of professional boundaries in rural practice. Acad Med. 2012;87:1091–1095.

23 Thistlethwaite JE, Bartle E, Chong AA, et al. A review of longitudinal community and hospital placements in medical education: BEME guide no. 26. Med Teach. 2013;35:e1340–e1364.

24 Shapiro J, Rakhra P, Wong A. The stories they tell: How third year medical students portray patients, family members, physicians, and themselves in difficult encounters. Med Teach. 2015;38(10):1–8.

25 Walling A, Montello M, Moser SE, Menikoff JA, Brink M. Which patients are most challenging for second-year medical students? Fam Med. 2004;36:710–714.

26 Bowen JL. Educational strategies to promote clinical diagnostic reasoning. N Engl J Med. 2006;355:2217–2225.

27 Ludmerer KM. Four fundamental educational principles. J Grad Med Educ. 2017;9:14–17.

28 Boud D, Keogh R, Walker D. Reflection: Turning Experience Into Learning. London, UK: Kogan; 1985.

29 Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: A systematic review. Adv Health Sci Educ Theory Pract. 2009;14:595–621.

30 Schon D. The Reflective Practitioner. New York, NY: Basic Books; 1983.

31 Moon JA. A Handbook of Reflective and Experiential Learning: Theory and Practice. New York, NY: RoutledgeFalmer; 2004.

32 Pearson DJ, Heywood P. Portfolio use in general practice vocational training: A survey of GP registrars. Med Educ. 2004;38:87–95.

Appendix 1

Interview Guide

1. Please tell me about a usual day in your clerkship.
2. Please tell me about the patients you saw more than once during your clerkship.
3. How did seeing patients more than once come about?
4. How did seeing patients more than once contribute to your learning?
5. Does it change your role as a student when you see patients over time?
6. Do you have other ways of finding out about your patients over time?
7. What do you learn from any other ways of connecting to patients?
8. Does your participation with patients over time affect patient care?
9. Does your participation with patients over time change you?
10. Did you experience any challenges with seeing patients repeatedly?
11. What role did your preceptors play in facilitating continuity with patients?