Transition processes through a longitudinal integrated clerkship: a qualitative study of medical students' experiences

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CONTEXT This paper describes the transition processes experienced by Year 3 medical students during their longitudinal integrated clerkship (LIC). The authors conceptualise the stages that encompass the transition through a LIC.

OBJECTIVES The purpose of this study was to understand the perspectives of 12 Northern Ontario School of Medicine (NOSM) Year 3 medical students about their transition process.

METHODS Data were collected longitudinally through three conversational interviews with each of these students, occurring before, during and after the clerkship. The authors used a guided walk methodology to explore students' everyday lives and elicit insights about the transition process, prompted by the locations and clinical settings in which the clerkship occurred.

RESULTS Participants identified three interconnected stages in the transition process: (i) shifting from classroom to clinical learning; (ii) dealing with disorientation and restoring balance, and (iii) seeing oneself as a physician. Interview data provided evidence for the adaptive strategies the participants developed in response to these stages.

CONCLUSIONS Based on these findings, the transition process during a LIC can be characterised as one of entering the unfamiliar, with few forewarnings about the changes, of experiencing moments of confusion and burnout, and of eventual gains in confidence and competence in the clinical roles of a physician. Recommendations are made regarding future research opportunities to further scholarship on transitions.

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INTRODUCTION

A number of efforts to advance our understanding of critical transitions throughout medical education are described in the literature.[1–5] Balmer and colleagues[6] described undergraduate medical education as 'a series of transitions between phases of the journey' towards a career in medicine. Kilminster and colleagues[7,8] recently characterised transitions as critically intensive learning periods, referring to physicians' transitions during clinical practice and medical students' initial exposure to clinical learning experiences. Teunissen and Westerman[9] reported three key transitions throughout the medical education continuum, which comprise the transitions from non-clinical to clinical training, from undergraduate to postgraduate medical education, and from postgraduate training to medical practice. The authors suggested that medical education researchers acknowledge that 'a transition is not a moment, but rather a dynamic process in which the individual moves from one set of circumstances to another'.[9]

Perhaps the most influential transition in undergraduate medical education unfolds during the third year of a 4-year MD programme, when students shift from spending more time learning in the classroom to experiential learning in clinical settings.[1,2,10,11] Students move from studying basic sciences in the classroom, with little or no clinical exposure, to adjusting to new health care environments while applying prior learning to clinical decision making, and gaining new knowledge through active and self-directed learning strategies. Within the challenging and exciting transition of Year 3 clinical clerkships are the medical students' first experiences of assuming many of the responsibilities associated with being a physician.[12–14] The processes of professional identity formation during clinical clerkships are particularly demanding as students seek to belong to the medical profession.[1,2,11] There are also inherent aspects of professional socialisation (personal, public and professional) that intersect with the processes students experience.[15,16] There is an expectation that Year 3 medical students gain practical competence in primary care and medical specialties during supervised clinical encounters,[17] while consolidating what they learn during clerkships in terms of day-to-day time management, applied clinical knowledge and interpersonal skills.[18]

Most of what we know about how students experience transitions to clinical clerkships is based on the perspectives of students who undertake rotation-based clerkships.[3,4,19–22] Prince and colleagues reported on the upheaval at the beginning of the clinical rotation: '. . .the time and energy students have to expend in adapting to their new environment [. . .] may explain the crisis in students' learning progress at the start of clerkships.'[3] Another example of difficulties experienced by students at the start of clerkships was described by O'Brien and colleagues.[21] They stated that although students found it difficult to adapt at the start of each specialty-specific rotation, the transition process became easier as time passed and was beneficial to students by the end of clerkships.[21] Moving from one discipline to another also means that students come to know new people and new locations every 4–6 weeks.[18] Masters and colleagues[20] described the transition process experienced by students between individual clerkships and found differences in how students experience clerkships at the same school. Many medical schools have implemented transition-to-clerkship courses directed at preparing students for their placements.[23–25] However, not much is known about the transition processes that students experience while undertaking different clerkship models, such as the longitudinal integrated clerkship (LIC). The LIC model offers contexts distinct from that of the rotation-based clerkship model to explore issues such as the particular transition processes experienced by students.[26] Within this article, we extend findings from previous studies that have described students' experiences of transition processes during rotation-based clerkships.

Our purpose is to describe transition processes experienced by Year 3 students during their LIC and to contribute evidence to a scholarship on transitions that has largely gone unacknowledged. Teunissen and Westerman[9] indicated that researchers should consider the need to explore transition periods in medical education longitudinally in order to examine the nuts and bolts underpinning these critical moments. For example, an exploration of student experiences of transition processes throughout a LIC can offer a holistic description with far-reaching implications for medical students undertaking LICs, as well as for the schools implementing them. The implications of such a study would stand to benefit the various LIC stakeholders such as faculty preceptors, health care professionals and members of the broader community by providing a better understanding of how students experience a LIC. The adaptive strategies developed by students along the way should aid in the attainment of the competencies that will enable them, as physicians, to understand the health needs of their patients.[27–29]

We provide a detailed analysis of how medical students described transition processes as they moved through before, during and after their mandatory 8-month LIC, and emerged as professionals. To our knowledge, the present study is the first to address the particulars of the transition processes experienced by students during a LIC from their perspectives.

A particular instance of context

At the Northern Ontario School of Medicine (NOSM), the distributed community-engaged learning model connects students and communities throughout a vast geography covering 800 000 square kilometres, or 90% of Ontario, using supportive communication technology.[30] During their Year 3 clerkship, medical students at NOSM live and learn in a community for 8 months, and are expected to acquire the skills and strategies necessary to understand and respond to the health care needs of the region's population. The clerkship at NOSM, known as the Comprehensive Community Clerkship, differs from traditional Canadian medical school clerkships, in which students learn the major clinical disciplines in urban teaching hospitals through block rotations.[31] Rather, at NOSM, Year 3 consists of a mandatory LIC in which students have parallel exposures to six core clinical disciplines of medicine across each phase of the life cycle in the context of a rural family practice. At the time the study was conducted (2011/2012), the LIC involved up to eight medical students living and learning in one of 12 large rural or small urban communities throughout Northern Ontario.

METHODS

Informed by a social constructivist research paradigm, 12 students from NOSM were recruited in order to investigate the following research question: how do Year 3 medical students at NOSM describe transition processes as they move through their LIC? The social constructivist paradigm 'assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent co-create understandings), and a naturalistic (in the natural world) set of methodological procedures'.[32] It is the position of social constructivists that knowledge is influenced by social and cultural realities and the acquisition of knowledge is largely influenced by the environments with which individuals are surrounded.[33] Interviewing the participants about their perspectives regarding transition processes during three conversational interviews over a period of 8 months, before, during and after the clerkship, helped to develop a sense of their initial anxieties and anticipations, and of the ebbs and flows in the adjustment process, as well as to understand how they consolidated their observations of becoming a physician.

Participants

Once the project had been approved by the research ethics boards of Lakehead University and Laurentian University, 12 participants undertaking the LIC in 2011/2012 were recruited using purposive convenience and snowball sampling approaches.[34] The goals of using these approaches were to elicit rich contributions from those who agreed to participate and to utilise the initial participants' relationships with their peers to recruit other potential participants. Snowball sampling proved to be very useful in that initial participants helped recruit male participants. The cohort that undertook the LIC in 2011/2012 consisted of 56 students. The medical student population at NOSM has generally been around 70% female. The 12 participants in the present study included two men and 10 women, and the mean age was 28.4 years (standard deviation: 4.9 years). Table 1 provides details on participant demographic characteristics.

Data collection

The interviews before the LIC were conducted in August, 1 month prior to its start. The interviews

Table 1 Participant demographic information

Characteristics	Demographic information
Participants, *n*	12 (21% of student cohort)
Gender	Women, *n* = 10; men, *n* = 2
Age, years, mean ± SD	28.4 ± 4.9
Background	Health sciences (e.g. nursing), medical sciences (e.g. biochemistry), social sciences, arts
Self-identification	Francophone, *n* = 2; Aboriginal, *n* = 1
Marital status	Married or in a civil arrangement, *n* = 6
Children	With children, *n* = 1

SD, standard deviation.

varied from 30 to 65 minutes in length. Although face-to-face interviewing was the preferred method, some interviews were conducted over Skype (a no-cost online videoconferencing tool) in view of the participants' needs and the fact that they were dispersed across a vast region.

When considering the uniqueness of NOSM and the geographical vastness and regional aspects of Northern Ontario, it was necessary to travel to the clerkship communities during the LIC (in mid-November) to understand participants' experiences in relation to diverse social and physical environments. Given the social constructive nature of the study, the guided walk method was chosen to enable better understanding of the participants' lived experiences because it allows for the placing of their stories *in situ*.[35,36] The guided walk method, a dynamic approach that explores the physical movement of individuals beyond conventional stationary interviewing methods,[35–37] involved a process of literally walking with the participant through his or her daily life as they attempted to put experiences of the transition process into words. The first author employed this method in order to experience a day in the life of each participant in the contexts where they were encountering aspects of their transition through the clerkship, including new roles, responsibilities and factors that comforted them. Walks were led by the participants and ranged in duration from 50 to 105 minutes. The reader may refer to our published work for further explanation of the methodological considerations for the guided walk and its relevance for medical education research.[38]

The post-clerkship interviews were conducted either face to face or over Skype in April following the participants' final assessments, and varied from 40 to 75 minutes in length. In order to elucidate the temporal dynamics of the transition process, participants were asked during all three interviews to reflect upon the question: what changes or transitions are you experiencing?

Data analysis

Participant labels (e.g. [medical student] MS7) included the tags 'before', 'during' or 'after' (e.g. MS4-before) to identify the participant and the time at which the interview took place. Each interview was transcribed verbatim. Transcripts were then shared with participants for their review as a comprehensive strategy to remove any inaccuracies in the transcripts, to facilitate connections between the participants' accounts of their experiences and the researcher's, and to enhance the participants' engagement during the analyses of the narratives representing their lived experiences. Based on the premise of the co-construction of knowledge of the participants' experiences, participants were actively engaged during the interpretation process. Feedback from participants regarding thematic elements contributed to the iterative analysis of the data, and revisions to the coding system were ongoing. Six steps of inductive thematic analysis proposed by Braun and Clarke[39,40] were employed. Step one consisted of reviewing each transcript for accuracy and to facilitate familiarisation with the data. Step two involved the preliminary coding of the transcripts by making notes in the margins of meanings about the transition processes experienced by the participants and their responses to these events. The third step consisted of grouping the narratives in relation to transition processes to better understand the collective experience, as well as to recognise when renditions from individuals provided unique or distinctive features. During the fourth step, data-driven themes were derived through a consensus process with the participants, which led to the development of a classification framework to represent the data. The fifth step involved attributing meanings and definitions to the themes and selecting the narratives to represent them. Peer reviews were a great source of insight and included consultations with participants who shared their viewpoints about the themes and suggestions from the research team through meaningful and significant deliberations regarding the interpretation of the findings. Herein, we report the results of the sixth step, the final analysis.

RESULTS

The results refer to three interconnected stages, individually regarded as temporal themes during the transition process through the LIC, and each comprising a number of sub-themes: (i) shifting from classroom to clinical learning; (ii) dealing with disorientation and restoring balance, and (iii) seeing oneself as a physician. Evidence supporting the potentially overwhelming experiences and the adaptive strategies developed by participants in response to these will be discussed in relation to each theme.

Stage 1: shifting from classroom to clinical learning

In moving from the classroom to clinical learning, medical students learn to apply theoretical knowledge gained in previous years, and develop

clinical reasoning skills such as the ability to elucidate health care issues during supervised encounters with patients. Sub-themes were: (i) new settings and different learning strategies, and (ii) juggling academic and workload demands.

New settings and different learning strategies

Many of the participants noted the changes in their learning environments as they moved from the classroom to clinical settings. They described the shift from mostly theoretical knowledge to application in terms of the added responsibilities of information gathering, synthesising of patient information, and patient management. One participant described the changes in different learning styles and environments she initially observed in relation to progressing from textbook learning to clinical learning. She employed the strategy of maintaining written notes about key learning points which she could explore later in the day in order to achieve the objectives of this stage of medical training:

> All of a sudden you're learning on the fly and you're expected to remember it. But I feel that I've adapted fairly quickly to the learning style. I always have a clipboard with me to write things down for later. (MS10-during)

Another participant described the shift to learning in clinical settings and how this motivated his pursuit of knowledge. He elaborated on the benefits of hands-on training and learning in a clinic:

> That's the biggest transition you make through the clerkship. I want to be in clinic, or the emergency, as much as possible just learning the tricks and learning the pearls that the doctors know that aren't in the textbook. (MS7-after)

During a guided walk through a community hospital, the physical environment prompted one participant to share the details of an unexpected experience with a patient that had occurred during the first month. She recalled assisting the patient to the washroom on her first shift in the emergency department and how she had to seek help from the nurses to remove the electrocardiography leads. She expressed feelings of ineptitude and vulnerability in fulfilling the expectations for this new clinical role, as well as the importance of developing adaptive strategies to the hospital environment by reaching out to health care colleagues for support:

> I felt when I first got here that I was always needing to ask. I had to find a nurse – how do I take his leads off? Now I am just more comfortable working in a hospital environment. (MS6-during)

Given the location of the clerkship, participants had opportunities to do things they might not do elsewhere, leading to a wide range of competencies. They felt that they benefited from being involved in many more learning opportunities than their urban counterparts at other schools as a result of the presence of fewer students in the clinical settings. From these exposures, participants described developing more effective approaches to taking a patient history.

Juggling academic and workload demands

Although learning throughout the clerkship occurs predominantly in the community and clinical settings, the pressures of performing clinically and academically are compounded by the volume of curricular requirements. Participants experienced competing obligations during their busy schedules. One participant reflected upon the mental exhaustion imposed by her academic and workload demands:

> I don't have work–life balance right now, or enough time to do everything that I'm supposed to do. I just get by doing the minimum, more than the minimum depending on what my priority is at the time. (MS9-during)

She described the strategies she had developed to deal with the volume of coursework after realising she was trying to accomplish too much. As she progressed through the clerkship, she attempted to speed-read and to be more selective of which coursework to complete in order to achieve some semblance of balance. Another participant described using a time management exercise in response to the competing priorities of academic workload and clinical responsibilities:

> I've got the schedule that they give us for when we need to be in clinic, then I schedule in other times around that, like sit down and write it out. I feel that I'm getting more accomplished as well in terms of school work, exercise, eating well and just getting that time to unwind and relax since I started doing that. (MS7-during)

Participants began to counter their feelings of being overwhelmed by the changes in their learning

environments and the academic and workload pressures by adjusting the number of hours they spent in clinical settings to permissible amounts and taking time to unwind.

Stage 2: dealing with disorientation and restoring balance

There is a period during the LIC, intimated in stage 1, that is referred to by students as the 'let-down'; it is the time when the medical student feels disoriented by not having enough clinical knowledge to become a physician. Participants described the disorientation during the second and third months of the clerkship as a time during which they did not know whether they were doing things correctly, or whether they were meeting their preceptors' expectations, or how to assess how much they were learning and whether it was enough. Sub-themes were: (i) experiencing moments of absolute confusion about the clerkship environment, and (ii) learning to work through exhaustion and burnout.

Experiencing moments of absolute confusion about the clerkship environment

Participants described the differences they observed between their feelings during the first month, when they felt simply overwhelmed, and those they experienced as they moved towards complete disorientation and outright confusion during the second and third months. This 'confusion' pertained to a realisation of the breadth of knowledge needed to become competent physicians and the contrast between this and what they currently knew from their training. One participant revealed the uncertainties with which she contended in the second and third months of her clerkship. At one point while sharing this story, she asked whether other participants reported similarly, to which the interviewer responded: 'Yes.' On receiving an affirmative response, she continued unreservedly, deepening our understanding of the letdown period with emotional detail:

> I don't know they would say they're depressed, but honestly I think that's what's going on. I think we're all just feeling bummed out that we don't know what we should know, or what we feel we should know. (MS1-during)

This sadness contrasts with the greater degree of comfort with the role of the developing physician expressed by another participant as she revealed the processes she underwent in resolving the disorientation of not knowing where to go or who to resource for assistance:

> The first few months go by very quickly just because you're trying to figure out where you are. If you're not familiar with the community it's hard to connect to local resources if you're not aware of what they are. Then I'd say I began getting more of a comfortable routine in the second half of the year. (MS10-after)

Learning to work through exhaustion and burnout

Participants described the exhaustion they experienced by the third month, when they felt as though they had hit rock bottom. One participant underscored the moments of burnout related to her doubts about patient management and the added pressure of summative examinations. She expanded on the significance of learning about how to work through these moments of burnout as reference points to which she could look back and learn from, almost as if she was reaching the light at the end of a tunnel:

> I think there are times when you go through the clerkship and you are completely burned out. I think that every time you overcome one of those periods it's a huge transition because all of a sudden you feel completely refreshed and excited about being there again. You look back and go: "Why was I so burned out? Was it just because we had an exam? Was it just because I just had four patients in a row that I didn't know how to manage?" (MS9-after)

Participants discussed the ongoing reflection in which they engaged as they sought to restore balance in their lives, and referred to changes they made in their personal lifestyle behaviours in order to preclude burnout, and strategies they developed to evoke a greater sense of well-being. As the participants advanced into their clerkship, they realised they needed to adjust their personal lifestyle behaviours in favour of physical activity, nutrition and sleep management, and also acknowledged increasing gains in confidence and competencies.

Stage 3: seeing oneself as a physician

Participants found that there were personal, public and professional parts of their identity that intersected during the transition through the LIC, particularly with reference to the physician they wanted to become. Sub-themes were: (i) developing one's

professional identity, and (ii) assuming the clinical roles of a physician.

Developing one's professional identity

Influences that occur during clerkship include those of the different clinical and patient management approaches of preceptors, which have impact on the student's professional identity formation. Participants described learning about good (e.g. patient-centred) and bad (e.g. unprofessional) medicine in the different clinical environments and how these experiences led to their gradual adaptation to various practices preferred by preceptors. Although clinical leaders in the clerkship communities provided guidance for participants in relation to achieving learning outcomes, objectives and competencies, self-directed learning, or taking matters into one's own hands and gaining in one's autonomy, was an approach that motivated participants as the clerkship provided opportunities to pursue learning in areas they were interested in. The following participant explained that in order to see oneself as a physician, it is important to be self-aware of the type of physician one would like to be:

> You start to realise that you're actually going to be a doctor, and knowing what it is that a doctor does. It's like taking what you see, picking and choosing what you want to emulate, and then experimenting. (MS8-after)

Assuming the clinical roles of a physician

As the clerkship year drew to an end, participants described circumstances in which they assumed the roles and responsibilities they associated with being a physician. One participant explained the challenges associated with developing strategies to perform physical examinations or invasive procedures. She described how she overcame these challenges by talking with patients during their procedures. This was about taking on the new roles of the credible professional resource and also the understanding caregiver. She shared how useful this strategy was in making the encounter more comfortable for the patient and herself:

> Patients put a lot of trust in you that you are going to take care of them. As a doctor you get to do a lot of things to people, patients are vulnerable. I would feel very nervous when I would have to do a breast exam or a rectal exam or a pelvic exam; now I am more comfortable with it. I find it helps when you talk all the way through it, then there is not this awkward silence while you're invading a patient. (MS6-during)

Participants identified aspects of compassionate and patient-centred care, including elements related to professionalism, personal and ethical considerations, and personal connections they shared with patients and families. The moments and events meaningful to participants, such as a first experience of losing a patient, further defined their empathic approaches and led them eventually to find their own way of being as a physician and to determine for themselves their constructs of good and bad medical practice, and to apply these to their own thinking and behaviour.

DISCUSSION

Within this article, we extend scholarship on the transition processes described by medical students undertaking rotation-based clerkships by providing a qualitative description over a LIC. Researchers have reported on the difficulties students experience at the start of each new rotation-based clerkship, such as those imposed by having to adapt to the unfamiliar clerkship environment, to forge new relationships, and to learn what the expectations are for each rotation.[3,4,18–22] For example, O'Brien and colleagues[21] explored students' struggles during the transition to specialty-specific clerkship rotations. They proposed that the transition struggle during longitudinal clinical experiences such as a LIC might occur only once at the beginning of the year rather than at the start of each individual rotation.[21] Our findings confirm their assumption by offering unique insights into the transitional challenges that students might experience at the beginning of a LIC and how these tend to subsequently facilitate professional identity formation. We found three stages that serve as parts of the transition process through a LIC. Transition processes during a LIC can be characterised as those pertaining to the entry to the daunting placement with few forewarnings about this professional leap, the experiencing of moments of absolute confusion and burnout, and the gaining of increased confidence and competence in relation to assuming the clinical roles of a physician.

Many medical schools internationally have implemented LICs as part of the undergraduate curriculum.[30,41–45] Researchers have demonstrated positive changes in student academic performance in students undertaking LICs in comparison with students

in different clerkship models.[46,47] For example, in their examination of academic outcomes across three different clerkship models – LIC, block rotations, hybrid – Teherani and colleagues[48] found that the LIC model provided students with the most continuity with patients, peers, the curriculum and faculty. They also reported that LIC students regarded their experiences with faculty teaching, observation of clinical skills, feedback and patient-centredness more favourably than their peers who experienced block rotations and hybrid models.[48] Due to the longitudinal nature of the LIC at NOSM in which participants specifically remain within the same community for 8 months, the opportunities for continuity and the parallel clinical exposure meant that over time participants reached a steady state in their transition processes.

As learning shifted to clinical settings, the participants in our study described the contextual factors they experienced at the beginning of their LIC, such as adapting to new learning environments and managing academic and workload demands while trying to figure out how, and in which competing demands, they should invest their time. Students conveyed feelings of uncertainty during the first month of the LIC, which foreshadowed moments of complete disorientation and confusion regarding their professional knowledge and abilities that began in the second month and persisted into the third month. According to Haas and Shaffir, disorientation occurs at a time when 'the problem for all students is assessing whether, in fact, they know what they believe they need to know in order to feel, and be, trustworthy when facing serious medical crises'.[49] The guided walks, a distinct feature of this study's design, provided opportunities to advance our understanding of students' experiences of transition processes in ways previously uncharted by placing experiences in context so that the researcher could be walked through what was being conveyed.[38] The timing of these guided walks at 3 months into the clerkship was appropriate for this study, given the general distress described by participants at this critical juncture in their transition process. Our findings reveal the personal growth experienced by participants by the fourth month, when they emerged from their professional disorientation. By this point, they had found their footing and were beginning to regard themselves as having a new professional identity, that of the developing physician. Participants described how, by the sixth and seventh months, they were able to build confidence as a result of repeatedly encountering common conditions and completing common procedures. Students explained how their clerkship experiences along the way contributed to their adaptation to aspects of becoming a physician such as in their development of competencies, growing proficiency in procedural skills, and increasing mastery in clinical decision making. They elaborated on the processes they developed in the different clinical environments which led to the restoration of balance and to eventually seeing themselves as physicians by the end of the LIC.

Limitations

The transferability of the present findings may be limited. Specifically, the study findings represent the experiences of 12 undergraduate medical students at one medical school who undertook an 8-month LIC. A region-specific study at a single institution may not be representative of the transition process of medical students undertaking LICs in other contexts; however, it does extend experiences reported at other medical schools and also adds to the literature on transitions. A second limitation refers to the fact that the research was centred on the student's perspective. To further conceptualise each of the stages of the transition process, collateral interviewing from the perspectives of patients, clinical preceptors and members of the broader community is recommended for medical education researchers. A third limitation is imposed by the study's methodology. Although the guided walk method created a space in which to elicit a rich understanding of the participants' perspectives in the different contexts in which they lived and learned, the guided walk is a unique data collection strategy that will appeal to certain participants, but is likely not to appeal to others. This method also comes with its challenges in terms of safeguarding principles of confidentiality and anonymity for both the participants and those encountered during the walk (e.g. students, patients, health care professionals). We provided participants with clear information regarding these concerns ahead of the interview, particularly with reference to the likelihood of interactions with others, and ways to manage the issues that arose when discussing their experiences.

CONCLUSIONS

Our findings reveal what little is known about how students experience transition processes during a LIC. We conceptualised three stages that encompass the transition process, which, in turn, furthers scholarship on two levels. Firstly, through a longitudinal

exploration, the methodology we employed served to contextualise a holistic description of each of the stages. Secondly, we anticipate that introducing these stages to medical education researchers will contribute to discussions surrounding further conceptualisation of the transition process during the LIC. Our findings suggest that medical students and researchers would benefit from opportunities to reflect on LIC experiences using similar methodological approaches. Researchers might explore further the extent to which our findings are relevant to students undertaking LICs elsewhere. Finally, our findings may add value to the considerations of medical educators and faculty staff who may be developing educational activities to orient and prepare students for the transition processes upon which they are about to embark.

Contributors: all authors made substantial contributions to the study conception and design. TVD collected and analysed all data as part of his doctoral research project, and wrote the first draft of the manuscript. RJS, RS and IC revised multiple drafts; NEL revised the final draft. All authors approved the final manuscript for submission. All authors have agreed to be accountable for all aspects of the work.

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