Adaptation during a longitudinal integrated clerkship: The lived experiences of third-year medical students at the Northern Ontario School of Medicine

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Context – NOSM UME MD Program

Phase	Key features
1 Year 1: 6 CBMs Year 2: 5 CBMs	-Each case-based module (CBM) has a system focus (ex. MSK, endocrine, end of life, etc.) -5 themes interwoven throughout small and large group and community learning sessions -3 integrated community experiences (1:1 Aboriginal, 2:2 remote/rural)
2 Year 3: CCC	Comprehensive Community Clerkship (CCC) -New emphasis on 6 clinical disciplines -Across each phase of the life cycle } Parallel exposure
3 Year 4	-Core rotations -Electives -Preparation for CaRMS interviews

Contentious Issues

- Student experience at a medical school with a non-traditional learning model
- External evaluation of the CCC conducted by Couper in 2008
- First qualitative study to describe the student experience at NOSM pre, during, and post-clerkship
  - the challenges they face, the transitions and changes they undergo, and how they develop processes of adaptation in response
  - informed by a social constructivist research paradigm

Research Questions

- How do third-year medical students at the NOSM describe challenges and/or stressors they manage during the clerkship?
- How do third-year medical students at the NOSM describe their experience employing strategies in response to the demands as encountered in their placement and living context?
- How do third-year medical students at the NOSM describe their experience developing processes of adaptation post-clerkship?

Participants

NOSM CCC students
(Academic Year 2011-12)

Of the 56 students enrolled:

- 93% from N. Ontario
- 70% female; 30% male
- 20% Francophone,
  5% Aboriginal

Demographic Information
12 Participants

- 10F, 2M; 21.4% of class
- Average age: 28.4yrs (SD: 4.9)
- 11 from Ontario
- Background: health, medical, and social sciences, other
- Self-identification:
  Francophone(2), Aboriginal(1)
- Perception of CCC community:
  8 northern, 6 rural, 3 urban, and mix
- 6 married or in a civil arrangement
- 1 with children

Clerkship Communities

Bracebridge
Dryden
Fort Frances
Hunstville
Kapuskasing
Kenora
North Bay / Sturgeon Falls
Parry Sound
Sault Ste Marie
Sioux Lookout
Temiskaming Shores
Timmins

BBCanada.com. Retrieved March 4, 2010 from http://www.bbcanada.com/ontario/northern_ontario

Pre-clerkship
Topic-oriented / conversational interviews

Development of interview topics based on feedback from:

- Key informants – recent NOSM grads
- NOSM Student Society leadership
- Members of my supervisory committee

Completed August-September 2011

- Length of interviews (30-70 mins)
  - Types of probing questions:
    detail, elaboration, clarification, contrast (Patton, 2002)
  - Feedback and suggestions

During clerkship: ‘Guided walks’

Appropriateness of selecting mobile method

- Key informants suggested going to the communities to interview participants
- Socially constructed realities *in situ*
- Guided walks can place events, stories, and experiences in their spatial context, and can help participants to articulate their thoughts

(Sheller & Urry, 2006; Moles & Anderson, 2008; Ross, Renold, Holland, & Hillman, 2009; Clark & Emmel, 2010)

‘Guided walks’

Completed mid-November to early December 2011

- Length of interviews (range 45-90 mins)
  - Feedback and suggestions

Locales and routes included: coffeehouses, car ride around community, tours of community hospitals and clinics, walks through neighbourhoods and downtown areas

(Sheller & Urry, 2006; Moles & Anderson, 2008; Ross, Renold, Holland, & Hillman, 2009; Clark & Emmel, 2010)

Total distance travelled: 6 224 kms
~3 300 car, ~2 000 plane, and ~900 bus

Post-clerkship

Topic-oriented / conversational interviews

Completed mid-April 2012 to late-May

- Length of interviews (45-75 mins)
  - Probing questions (Patton, 2002)
  - Feedback and suggestions

Inductive Thematic Analysis

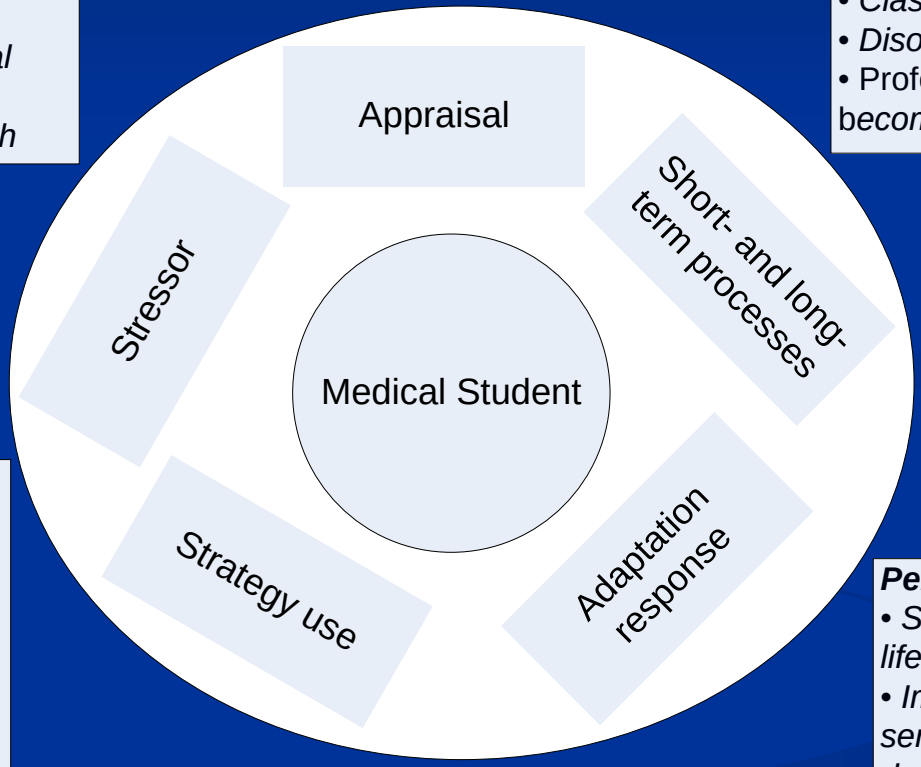
- Interpretation in a social constructivist research paradigm is the result of a collective process between the participants and the researcher
- Narratives, themes, and sub-themes co-constructed with the participants to describe their lived experiences; *in vivo* themes
- Reflexivity, audit trails, authenticity, and interpretive rigour

(Boyatzis, 1998; Charmaz, 2000; Crabtree & Miller, 1999)

Relationships
- *Preceptors*
- *Peers*
- *Family*
- *NOSM*
- *Coordinators*
- *Healthcare professionals*
- Broader clerkship *communities*

CCC
- Community *site selection process*
- Similarities and differences between experiences
- *Rural and northern healthcare*
- *Parallel and longitudinal exposure*
- *Influence on career path*

Transitions
- *Preparation and anticipations ahead of clerkship*
- *Classroom to clinic*
- *Disorientation dilemma*
- Professional socialization of b*ecoming a physician*



Training in home or familiar community
- *Benefits of training in one's hometown*
- *Personal and ethical considerations*
- *Concerns with evaluation and assessment*
- *Links with NOSM's social accountability mandate*

Personal well-being
- *Strategies and personal lifestyle behaviours*
- *Implications for services and policy development*

Suggestions
- *For medical students*
- *For NOSM*
- *For study and future research*

“We got a really warm welcome from everyone” – Relationships with the broader community

You could see the amount of preparation that went into welcoming us to the community. Orientation week was amazing. We had a [community]-Amazing Race that they organized for us. So it was an orientation, where we run around the entire community doing a scavenger hunt in surgical scrubs and wacky bandanas. So we’re going all over the place, they had us at the flea market in [community] and at one point we were riding down a water slide in our pajamas it was just crazy fun. Just to break us in and showcase the community. So it was a way of not only getting us acquainted to the hospital and the medical clinics but also the entire communities, then sort of highlighting what they had to offer. They had put a lot of forethought and effort into it, so that was really appreciated. [MS10-during]

“Get out and socialize” – Integration

I think [community] was very easy for me to integrate into, because I’m from [community] which is very similar population size, it’s a very similar lifestyle. I found it very easy to integrate into [community] and just sort of connect with the people there, because I know sort of what life is in a town that size and in a town where you can do pretty much anything. I mean there’s lakes, in the winter there’s arenas where you can play hockey and everything like that. So it’s easy to talk to people when you’re from a town very similar so for me integrating to [community] was not hard at all. [MS7-post]

“Each community is going to have their own way of doing things” –
Exposure to clinical procedures and specialities

See for myself I’m not sure what aspect of medicine I’m most interested in, so it can be a bit of a frightening thing to sign up for a year of your clerkship and you’re limiting your exposure to certain aspects of medicine which might come into play later on when applying for CaRMS matching and trying to get into specific streams, and to set up electives and sort of trying out if you will like different aspects of medicine before you apply. [MS5-pre]

“It’s very typical of Northern Ontario” – Regional aspects

It’s very much the epitome of northern and rural health, just the issues that you see, accidents at the local sawmill or people who fall on chainsaws that need to be stitched up [laughs]. You see a lot of hypothetical northern situations including the dead of winter where you need to fly somebody out to receive higher level care. I mean we always say, “Oh! Yes, yes yes! We know geography is important, it’s on every single NOSM exam.” You don’t know it until you live it though. So it was a community that was very much reflective of some of the challenges and burdens of practicing in rural Northern Ontario. And we got to live that so I think I’m sort of grateful for the northern curriculum. [MS10-post]

Disorientation dilemma

I think there are times when you go through CCC and you are completely burned out. And I think that every time you overcome one of those periods is a huge transition because all of a sudden you feel completely refreshed and excited about being there again. And I think each one of those is a transition and is also a really good learning experience because 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? It was all over my head, I felt back like I was in the first day drowning again. I think for some of those, we definitely slip backwards a little bit afterwards, but then again you get to climb and you eventually get there. [MS9-post]

“I feel like a big fish in small pond” – Distribution of learners

That’s the beauty of this program, because it’s rural and we’re not in Toronto fighting with a harem of students and the most senior learner gets all the opportunities. It’s not like that here, there are four of us so we’re going to get exposure to everything. So actually I think we’re better off in a rural centre and I think we will have more skills in a rural centre. And the learning opportunities are better. People are sicker, there are fewer students. I think it’s better. [MS2-during]

“It takes a lot of stress away” – Benefits of training in one’s hometown

Well the fortunate thing for me, I didn’t have to adjust to the city and I didn’t have to adjust to the hospital because I knew where everything was, I knew most of the nurses and most of the physicians from being here. The biggest adjustment for me was workload. How much time do you spend on VAR versus looking stuff up for clinic the next day versus going to the gym and exercising, spending time with my husband, my family, and friends. Whereas some of the other students I think it was, adjustment to workload, hospital, city, it’s very different. So I’m fortunate from that perspective. [MS4-during]

This is Northern Ontario and this is where I'm from and where I'm going to stay so to me that's not an issue and I kind of like it. When I see someone in the emerge or if somebody recognizes me from high school or something like that. I kind of enjoy that and I like chatting with them, I don't feel uncomfortable and I try to make sure that they don't feel uncomfortable. So obviously if it's a guy or if it's an older gentlemen that's a family relative or something like that I'm going to warn my preceptor…knowing my limits and making sure that the patient's comfortable. Usually everybody is just thrilled to see somebody they know that speaks French to them so it's kind of helpful. [MS11-during]

“The kind of physician I want to be” – Physicians as role models

I like to experience different styles of practice. I like the idea of the old school doctor with all those years of experience, picking his brain and learning those really critical little things that could make life better for you. I liked the opportunity to have the different styles so then I could say, okay I like that. I’m going to put that in my memory bank of how I want to be when I have my own practice. You get to pick and choose when you’re formulating your own future practice. You can go okay, that’s terrific, okay that’s no so terrific, that’s really great. And you can compile your own style by having experienced other peoples’ styles. [MS2-post]

“The role of physician started to feel like it fit” – Transition to becoming a physician

I think this year is the year that I can really feel the community engaged learning because we are in a different community all year and I feel like I am part of the medical community here, at first I didn’t [laughs]. But then you get to know all the doctors and you get to know the nurses and you go the hospital and you know where you’re going, you know people. Like taking you on the tour today I felt like this is my hospital, this is where I work. And if you would have come at the beginning of the year, I wouldn’t have felt that way and I wouldn’t have been able to introduce you to people so, yeah I feel like I’m part of this, this is my medical community now. [MS6-during]

“It’s gradual but it’s definitely noticeable” – Adaptive expertise

Just accumulating knowledge, really seeing patterns in actual people rather than in a book makes a huge difference. I definitely feel a lot more competent in my skills and in certain areas, especially where I’ve had repetition of those skills. It’s definitely been developing over time. Like I’ve had the opportunity to deliver a few babies and the first one I delivered well the doctor had their hands on mine, like “do this and do this” and I had no idea. But now, you know, I’ve done a few and I’m a lot more competent with what I’m doing and I’m more comfortable so mom’s more comfortable, the doc’s more comfortable. So it progresses for sure. [MS12-during]

“There are certain patients that break my heart” – Empathy for patients

The other thing that I definitely noticed when I was in [community] is that there are certain patients that break my heart that I know I would take into my practice in family medicine, like for example, you’re working in emerge and somebody comes in and you have to let them know that they have a tumour or something, organize treatment for hepatitis or some sort of significant disease, schizophrenia or something, and you know they are going to benefit a lot from having a family physician, and I just know personally from seeing them and it just broke my heart when they didn’t have a physician, other than the emergency department to help organize their care, because I felt like these people really needed that…that was one lesson that I think was really important from CCC. [MS3-post]

“I’ve started scheduling my life and it seems to work” – Strategies and personal lifestyle behaviours

I’m still trying to figure out exactly what works for me, right? I’ve got the schedule that they give us for when we need to be in clinic, things like that and then I schedule in other times around that when I’m going to do work, when I’m going go to the gym and things like that. And I’ve found that since I started doing that I’m eating better, I’m exercising more and I’ve found time to sit down and read a book or just watch a movie and things like that. So that’s sort of my approach to it *[laughs]* and it’s a very intellectual, like sit down, write it out sort of thing. I found that there is time to do everything whereas before when I wasn’t doing that I never thought I had time. And 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]

Conclusion

- Contributions to the literature in relation to adaptation processes and other emerging concepts such as becoming a physician, empathy, training in one's home community, and student well-being
- Participants lauded quality teaching and learning opportunities
- "It takes a community to train a physician"

Methodological suitability of mobile methods and social constructivism in medical education research

Participants expressed how the methods used elicited experiences they previously felt would be difficult to describe

Implications of the Research and Recommendations

- Medical students
- NOSM
- Community preceptors
- Clerkship communities
- Patients
- Services and policy development
- Medical schools
- Rural and northern health research

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Participants

Key informants

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References

Auer, K., & Carson, D. (2010). How can general practitioners establish 'place attachment' in Australia's Northern Territory? Adjustment trumps adaptation. Rural and Remote Health 10, 1476. (Online)

Barton, D. (1995). Stress and adaptation in learning and practicing medicine. Academic Psychiatry, 19, 34-43.

Boyatzis, R. (1998). Transforming qualitative information: Thematic analysis and code development. Thousand Oaks, CA: Sage.

Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (2nd ed.). Thousand Oaks, CA: Sage.

Crabtree, B., & Miller, W. (1999). A template approach to text analysis: Developing and using codebooks. In B. Crabtree & W. Miller (Eds.), Doing Qualitative Research (pp. 163-177). Newbury Park, CA: Sage.

Glaser, R. (1956). The adaptation of the medical student. Journal of Medical Education, 31, 17-20.

Gaufberg, E. H., Batalden, M., Sands, R., & Bell, S. K. (2010). The hidden curriculum: What can we learn from third-year medical student narrative reflections? Academic Medicine, 85, 1709-1716.

References

Guba, E. G. (1992). Relativism. Curriculum Inquiry, 22, 17-23.

Guba, E. G., & Lincoln, Y. S. (2004). Competing paradigms in qualitative research. In S. N. Hesse-Biber & P. Leavy (Eds.), Approaches to Qualitative Research (p. 17-38). New York: Oxford University Press.

Haas, J. & Shaffir, W. (1991). Becoming doctors: The adoption of a cloak of competence. Greenwich, CT: JAI Press Inc.

Hafferty, F. W. (1998). Beyond curriculum reform: Confronting medicine's hidden curriculum. Academic Medicine, 73(4), 403-407.

Haglund, M., aan het Rot, M., Cooper, N., Nestadt, P., Muller, D., Southwick, S. et al. (2009). Resilience in the third year of medical school: A prospective study of the associations between stressful events occurring during clinical rotations and student well-being. Academic Medicine, 84, 258-268.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge: Cambridge University Press.

Lazarus, R. S., & Folkman, S., (1984). Stress, appraisal, and coping. New York: Springer.

Lee, C. G. (2011). Reconsidering constructivism in qualitative research. Educational Philosophy and Theory.

Moles, K., & Anderson, J. (2008). Walking into coincident places. Qualitative Researcher, 9, 5-7.

References

Mylopoulos, M., & Regehr, G. (2009). How student models of expertise and innovation impact the development of adaptive expertise in medicine. Medical Education, 43, 127-132.

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oakes, CA: Sage.

Radcliffe, C., & Lester, H. (2003). Perceived stress during undergraduate medical training: A qualitative study. Medical Education, 37, 32-38.

Ross, N. J., Renold, E., Holland, S., & Hillman, A. (2009). Moving stories: Using mobile methods to explore the everyday lives of young people in public care. Qualitative Research, 9, 605-623.

Treadway, K., & Chatterjee, N. (2011). Into the water - The clinical clerkships. New England Journal of Medicine, 364(13), 1190-1193.

Worley, P., Prideaux, D., Strasser, R., Silagy, C., & Magarey, A. (2000). Why we should teach undergraduate medical students in rural practice. Medical Journal of Australia, 172, 615–617.

Worley, P., Esterman, A., & Prideaux, D. (2004). Cohort study of examination performance of undergraduate medical students learning in community settings. British Medical Journal, 328(7433), 207-209.

Thank you!