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Remote and rural placements occurring during early medical training as a multidimensional place-based medical education experience

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The Northern Ontario School of Medicine delivers medical education aiming to improve the health outcomes for persons living in Northern Ontario, including those in underserviced rural and geographically remote communities. Second year students experience rural medicine and living during two four-week long placements set in remote and rural communities (RRCP) supervised by local physicians. This place-based approach to medical education aims to equip learners with the skills and dispositions needed to work there successfully. The goal of the study was to develop a better understanding of RRCPs from different perspectives: Institutional, community-preceptors and students. Data was collected by review of institutional documents, semi-structured interviews, and questionnaires to obtain information about the aims of each group. A place-based educational framework informed the analysis which developed themes and sub-themes using a constructivist approach. The aims of each group were in five themes, social accountability, community engagement, integrated learning, forming the rural clinician, and living in place as a rural clinician. Differences were, however, apparent in terms of emphasis and perceived relevance, with these being related to the perceptual, political, ideological and social dimensions. For example, the finding that students did not value extra-clinical learning about or within the wider community can be viewed as students having a different place-relationship with the community than their teachers in terms of the social dimension. The data suggests that curricula should include consideration of the various ways students and teachers interact with placement communities with the aim of gaining understanding of, and bridging the gap between, their different expectations.

Key words: Place-based education, medical education, rural placements.

INTRODUCTION

The Doctor of Medicine degree offered by the Northern Ontario School of Medicine (NOSM) has been created to be a socially accountable program that meets the health care needs of the people of Northern Ontario (Hudson

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and Hunt, 2009). The NOSM MD program explicitly aims to reduce health inequities in the region, targeting those who have poorer health outcomes, such as indigenous persons and those who live in rural communities. The program follows the international movement aimed at improving health equity through greater access to quality healthcare services (Boelen and Woolard, 2009; Boelen and Heck, 2015). As an educational program, this translates into preparing graduates with the knowledge, attitudes, and skills to practice in the region, while also requiring students to experience a wide variety of practice contexts located (Strasser, 2009; Strasser et al., 2009). Such curricular goals are in accordance with those healthcare regulatory bodies that have indicated undertaking training in the future practice context is essential to meeting healthcare needs of the population served (General Medical Council, 1993; World Health Organisation, 1996, Frank et al., 1996; Association of the Faculties of Medicine of Canada, 2010).

Northern Ontario is a sparsely populated area covering approximately 800,000 km^2. Although NOSMs two main campuses are in the cities of Thunder Bay and Sudbury, much of the population lives in rural communities with populations ranging from approximately 100 to a few thousand, many of them in remote and inaccessible areas (Strasser, 2009). These rural communities have been chronically underserviced with respect to healthcare services, a factor which has contributed to health inequities both within the region and when compared to the more populated Southern Ontario (Rural and Northern Health Care Panel, 2010; Glazier et al., 2011). To help address this, the NOSM program has utilised a place-based educational approach which exposes the students to medical practice in rural settings during their training (Ross et al., 2014). The four-year Doctor of Medicine program begins with a „pre-clerkship" during which students engage in learning about health and healthcare in Northern Ontario using a combination of case- and problem-based learning, in addition to the typical medical curriculum topics of foundational sciences and clinical skills. In year two this foundational learning is applied during two compulsory four-week long placements in remote and/or rural communities (the Remote and Rural Community Placements or RRCP) which constitute the students" first substantive clinical experience. Within the RRCP, students spend time with one or more clinical faculty preceptors who practice medicine in that community (Strasser, 2009).

Community- and place-based educations are part of a broader educational movement to ground teaching and learning in the particularities of place. It is explicitly founded on the idea that education, medical or otherwise, should not be generic, but specifically for and about somewhere (Sobel, 2004). The movement has historical roots reaching back to the seventeenth century and educational theorist, Comenius, who said, "*Knowledge of the nearest things should be acquired first, then that of those farther and farther off*" (Woodhouse, 2001). Place-based education aims for students to learn to act situationally (Gruenewald, 2003) by means of understanding their relationship with place in terms of culture, ecology, ideology, politics and perception. These can be understood theoretically in terms of a series of dimensions including (i) our relations with places shaped by human culture, the sociological, (ii) the non-human habitat, the ecological, (iii) how are relationship with place is arranged and controlled, the ideological, (iv) how our relationship with place is contested and changed, the political, and (v) how we experience places is a sensory manner, the perceptual (Gruenewald, 2003).

The current movement for place-based learning in medicine is in part a response to the dominant decontextualized learning (that is, learning for anywhere instead of somewhere in particular) that is often found in the goals of state-supported education at all levels and in all disciplines (Ross et al., 2014). In addition, advocates of place-based learning argue that it is particularly important in underserved and historically disadvantaged communities where educational curricula is often unresponsive to the needs of local communities (Gruenewald, 2003; Shannon and Galle, 2017). In such cases, place-based education has the theoretical and political aim of actively working to "decolonize" a place that has suffered historical inequities and to help its citizenry "reinhabit" their communities with a greater sense of empowerment and wellbeing (Gruenewald, 2003; Reid et al., 2011; Shannon and Galle, 2017). As NOSM"s mandate is to serve such communities, the RRCPs are an expression of place-based medical education with the aim of ensuring that learners experience and consider how local community life impacts their ability to help their patients.

The RRCP was modelled after similar rural elective placements at other institutions, such as Dartmouth in the 1970s, and Morehouse School of Medicine and Eastern Virginia Medical School in the 1980s (Johnson and Haughton, 1975; Blumenthal et al., 1983; Berger and Schaffer, 1986; Lynch et al., 2001). Such experience have shown to be effective for nurturing positive attitudes towards rural medicine (Riley et al., 1992; Vaz and Gona, 1992); Grant et al., 1997; Lynch et al., 2001), and the intent to base future practice in rural communities (Moores et al., 1998; Williamson et al., 2003; Peach et al., 2004).The inclusion of the placements is also supported by studies showing that community placements can improve students" social responsibility towards the community they subsequently practice within (Reeves, 2000).

In year 3, students undertake a 9-month comprehensive community clerkship. This also occurs outside the two main campuses although mainly in larger communities than those which host the RRCPs. Finally, in the 4th year, students undertake a conventional rotations-based clerkship based in the cities of Thunder

Bay and Sudbury. In this way, NOSM students are exposed to a series of communities in Northern Ontario representing a variety of different potential future practice contexts, but always beginning with the most underserved context, the remote and rural community.

During the RRCP, students spend approximately 15 h per week in „clinical time" with a community-based preceptor, as well as in community learning sessions undertaken with allied health professionals or health-related agencies located in the host community. From the onset of the program the RRCPs curricular aims have been very broad and articulated as "*learning about what it is like to live and practice medicine in these settings*", along with a requirement to practice histories and examination skills (Northern Ontario School of Medicine, 2007). While giving preceptors the autonomy to deliver fully contextualised community-based education, this strategy has made it difficult to determine what learning is occurring, or meant to occur, and therefore to evaluate the success of the RRCPs. In addition, it is not known whether the three intra-institutional „players" of community-based education (that is, students, teachers and institution), are actually in agreement regarding the purpose of the RRCPs. It is also unclear how the RRCPs relate to the place-based education more generally. As such, to aid understanding of the RRCPs, this study determined for the first time in the literature, to use the dimensions of place as tool to analyse a medical educational activity. The goal of this study, therefore, is to better understand what the roles of the RRCPs are from different place perspectives which can be used to guide the development of this and other rural community placements during medical training.

METHODS

Participants

Participants were recruited by invitation and gave informed consent before taking part in the study according to a protocol approved by the Lakehead University Ethics Board. Institutional Leaders (ILs) were selected using purposive sampling (Lichtman, 2006) through the organisational chart of the Undergraduate Medical Education program at NOSM. All ILs were faculty of the school and had taken a leadership role in the program during the current or previous academic year, or during the planning stages of the school. Consent was obtained from 9 of the 10 invited ILs (6 male and 3 female). Community preceptors (CPs) were recruited by inviting all NOSM faculty by email who had taken part in the RRCP during at least one of the two previous academic years, with 13 (8 female, 5 male) recruited from the 31 invited. Student participants were recruited over 2 academic years by introducing the topic to them prior to the start of a scheduled lecture followed by an invitation to participate sent by email. All students were recruited from the Lakehead University campus of the medical school resulting in 20 out of 55 agreeing to participate (13 female and 7 male).

Data collection

The overall purpose of the data collection phase was to collect data pertaining to educational aims of the RRCP, including the knowledge, skills and attitudes to be gained, and the educational experiences from a variety of perspectives using as constructivist approach (Lichtman, 2006).

Document review

Documents were obtained from the NOSM office of Undergraduate Medical Education that is related to the early years of the school ranging from pre-opening to two years post-opening. More specifically it consisted of: (a) early documents about the proposed model for the school; (b) reports about community consultations about what the school"s curriculum should contain, and (c) instructions to faculty teaching in the RRCPs. Each document was reviewed for relevance to the community placements or a related topic (that is, social accountability, community education, and community engagement at NOSM), resulting in a list of 4 documents (NORMS Liaison Council, 2000; Northern Ontario School of Medicine, 2003; 2007; Ellaway, 2013). Documents were read several times to extract any information pertaining to the outcomes, objectives, and methodology of place-based medical education at NOSM, including the RRCPs, with notes being taken using a standardized form.

Interviews

Both ILs and CPs were interviewed using a semi-structured interview either in-person or by telephone (Lichtman, 2006). The questions were designed by a member of the research team with in-depth knowledge about the pre-clerkship program at NOSM, and who was the primary document reviewer.The interviews consisted of asking participants about what they thought the: (a) overall purpose of the RRCPs were in terms of the medical school"s mission, (b) student learning outcomes within the RRCP should be, and (c) what sort of experience learners should have during the placement. All interviews were recorded and transcribed verbatim made with additional field notes taken as required during and after the interview. Interviews averaged about 45 minutes.

Questionnaires

Data from students was collected via a questionnaire that mirrored the interview questions of the ILs and CPs, as there was insufficient time to conduct interviews between the start of the academic year and the start of the RRCP. Using open ended questions, the questionnaire asked students to describe the purpose of the RRCPs, desired learning outcomes, and what sort of experiences they expected to have, mirroring the questions used in the interviews of the institutional leaders and community preceptors. The interview and questionnaire questions were reviewed by a place-based education expert and were found to be suitable data collection instruments for the purpose suggesting they had face validity.

Data analysis

All data was entered into ATLAS.ti, a qualitative software analysis program (ATLAS.ti Scientific Software Development GmbH, Germany) which facilitated the assigning of various themes and sub-themes to the data. Data analysis was a collaboration between BR and DG, which began with reading the entire text twice to gain a general impression of the content and develop an initial code list. Using ATLAS.ti, the data was further separated into distinct segments (for example phrases, sentences or paragraphs) and

assigned codes (Denzin, 2005). Additionally, the data was examined for relevant structural codes identified in the literature regarding place-based medical education. The analysis was iterative in that as new codes were developed from the data, previously analysed transcripts were reviewed to determine whether these new codes were already present. The results of the analysis were discussed between researchers during and prior to finalising the thematic organisation of the data to promote credibility of the research findings. As part of these discussions, the team also discussed their emerging awareness as a self-reflexive process to add credibility to the emerging themes (Lincoln and Guba, 1985; Finlay, 2006; Tracy, 2010).

RESULTS

Data was collected regarding the aims of the RRCP from the perspective of ILs, CPs and students prior to them taking part in their first RRCP. The objectives of each group fell into five main themes --social accountability, community engagement, integrated learning, forming the rural clinician, living in place as a rural physician-- differences were apparent in terms of emphasis and perceived relevance (Table 1). Notably, student objectives diverged from those delivering the program at institutional and community levels, a finding with implications for place-based medical education.

Theme One: RRCPs are a mechanism for being social.

From the institutional perspective, the RRCPs represented a mechanism by which the program acts in a socially accountable manner. This emerged mostly from the document review and ILs and CP responses to questions about the general purpose of the RRCPs. For example, one founding document (Northern Ontario School of Medicine, 2003) stated, "*There must be a focus on getting more physicians into our communities*" In addition, most IL referred to social accountability directly with one ILs saying "*The school exists to make the north healthier and the placements are part of that*". Only two students referred to meeting community healthcare needs, one writing, "*My aim is to better understand what <community name> expects from physicians*" and "*I aim to understand how physicians work in <community name> to treat addiction"*.

The CPs frequently referred to one aspect of social accountability, that of increasing the supply of rural physicians stating, for example, "*My aim is to train my future colleagues"* and "… *our community needs more docs, that's what I am trying to do".* This aspect of social accountability is closely connected to physician recruitment, and it is on the matter of recruitment that the perspectives of the institution and CPs differed. While it was clear that the RRCPs were viewed as a recruitment tool by both CPs and ILs, they differed in terms of recruitment to where, and on the role that NOSM should play in such. One IL said "*as a school we have an obligation to generally enhance recruitment to all of the communities that we serve".* Conversely, it was made clear by two ILs that actively recruiting students to practice in a specific community was not part of the school"s mandate. For example, "*We need more docs in the north … but the school must be absolutely hands off in anything about (recruitment) to any community"*. This differed markedly from the view of one CP who said, "*The only time we see NOSM students is during (the RRCP) and I hope some come back and join us*". Another CP expressed frustration saying "*I wish (NOSM) would work more with us to recruit (physicians)"* although another CP was aligned more with the institutional stance stating "*I would never seek to sell our clinic to students"*. As such, while ILs and CPs shared a desire to recruit more physicians to the region, the institution has a general aim to increase the supply of physicians to anywhere in the region, while at least some CPs wanted the RRCPs to increase recruitment to their own community. In other words, CPs and ILs differed in terms of the geographic scale of place that social accountability operates within.

Theme two: Working in, though and with community

Working in partnership with the healthcare and wider community was viewed as an important aim in both the founding documents and by all the ILs. One founding document (NORMS Liaison Council, 2000) stated, "… *pre-clerkship training will occur in both Thunder Bay and Sudbury and northern regional rural, remote and Aboriginal learning sites*" while an ILs said "*(The RRCPs are)…. about engaging the communities and it's not just physicians and other healthcare providers, but it's the entire community".* This reflected a desire to better understand health care needs with an IL saying *"It is crucial to know what the community wants, they know better than anyone where their needs are*", but also for the purpose of developing community-based training sites: "… *part of it was engaging with the community leadership in order to get them to support what we were doing there*". This was aligned with the desire of some CPs to develop the clinical teaching capacity, both infrastructurally and personally stating "… *being in the med school has allowed us to get more space for teaching*" while another said, "*I have not taught much before and I really want to build my teaching skills".* One student also referred to community engagement from a career perspective, their aim being "*to develop connections with the physicians I will be working with in the future*", with another stating they aimed to *"network with other health professionals and students".*

Theme three: Moving beyond classrooms through experiential pedagogy

It was clear that ILs did not view the RRCPs as stand-alone

Table 1. Aims of the remote and rural community placements from the perspective of the institution, community preceptors and students.

Theme	Dimensions of place-based education	Institutional aim	Preceptor aim	Student aim
Social accountability	Political	Be socially accountable by improving health outcomes and health care access. Enhance recruitment of physicians in the region.	1. Train my future colleagues. 2. Increase access to healthcare by enhancing recruitment of physicians to my community.	Engage in health advocacy while on placement. Understand community healthcare needs.
Community engagement	Ideological	Engage with communities to develop the experiential learning environment.	Develop personal and community teaching capacity	Develop personal relationships with community-based clinicians
Integrated educational program	Perceptual	Apply skills previously learned in the classroom. Have the RRCPs be part of a broad range of clinical experiences. Provide a stepping stone between the pre-clerkship and clerkship stages of the program.	Integrate teaching of year 2 medical students with learners at other stages of their education who are also present in the community.	Find out what clerkship will be like Learn how to be a clinical learner when away from home
Forming the rural clinician	Perceptual social	Put in place programs which equip students for rural practice. Foster a positive attitude towards rural practice.	Provide students with a positive experience of rural practice. Allow students to gain knowledge of rural health care systems. Teach clinical skills. Demonstrate to students how a rural context impacts medical practice. Emphasize the importance of generalism in rural practice. Emphasize the importance of interprofessionalism in rural practice.	Apply knowledge and skillsgained in the classroom. Gain 'real world' clinical experience. Find out more about rural practice. Have clinical experienceswhich will help with futurecareer development.
Living in place as a rural physician	Perceptual Social	Allow students to experience life in a rural community.	Learn about my community. Make students aware of what is expected of physicians by the community in terms of professionalism within and outside the clinic.	None stated

elements but rather as part of an integrated program. Firstly, the RRCP provided the first opportunity to apply theory to practice. One IL said, "…*it's a clinical experience and it's about helping the students, you know, experience for themselves what they've been learning about in their classroom"* and "… *in most modules the system affected is a given, but in (the RRCPs) the students see the undifferentiated patient, they have to integrate what t hey have learned".* A student commented similarly that they aimed to "*understand what it is really like working as a physician*". Secondly, the RRCPs are part of a continuum of community learning. It was thought important that students experienced all types of northern communities to be aware of the breadth of practice contexts, to aid their understanding of these contexts, and to forge the necessary connections that are key to successful future practice. One IL stated "*(students) need to be exposed to all different types of community experiences: Aboriginal, rural communities, and small and larger urban communities in the north, so they could get the broad sense of what it means to practice medicine here"* mirroring what is said in the founding documents. Having a broad-based experience prior to clerkship was another frequently stated aim. For example, an IL stated "*in the earlier years the learning is much broader … (a) broader sense of what clinicians*

can and should do". Lastly, preparation for the community-based clerkship (CCC) was mentioned by several ILs including one who said *"(the RRCP) are a preparation for their CCC placement and to make sure that they have got some social supports….they are a lot better prepared all round for the CCC; it would be difficult if they went straight to it"*. Students frequently stated this as an aim, such as "*finding out how to learn away from home*" and "*getting ready to be a clinical learner*".

A frequent finding of both the document review, and in the responses of all participants about the educational outcomes of the RRCPs, was the placement curriculum, namely the knowledge, skills and attitudes, needed by a rural physician. This was differentiable into two aspects, clinical and non-clinical which are described separately.

Theme four: Forming the rural clinician

Within the founding documents (Northern Ontario School of Medicine, 2003; Ellaway, 2013), training rural physicians was paramount at NOSM as evidenced by statements such as "*students learning in environments which will closely resemble those in which they will work after graduation*", and "*know, be skilled and like to work in the north*". These general statements were aligned with more detailed comments about the specificcurricular aspects of rural medical education, with several sub-themes emerging:

(i) Having a positive regard for rural practice. The RRCPs were viewed as a vehicle for demonstrating the key features of rural practice, including what is distinctive and desirable about rural medicine, and how a practitioner can deliver excellent care to their patients. Within the founding documents (NORMS Liaison Council, 2000; Northern Ontario School of Medicine, 2003; Ellaway, 2013) statements such as "*see the positive in rural practice*" and "*see themselves as rural practitioners*"were common. This aligned with the views of both ILs and CPs who placed an emphasis on influencing student"s attitudes towards rural practice, although students themselves were silent on this aspect of the placement. One IL stated that "*we want students to see rural practice as the type of physician they want to be*" and that *"(a) factor associated with going into rural practice after training (are) positive clinical and educational experiences*". Another articulated a perceived lack of status for rural practice with the professions stating that the RRCP *"is there to show that rural practice is not second best, and it gives (students) an opportunity to engage in high quality healthcare day in and day out".*
(ii) Putting classroom skills into practice. The CPs had much to say about the knowledge and skills that should be taught. Learning clinical skills was mentioned by most CPs with one stating "*Taking a history, doing a physical, writing notes and chart … is often the first time that students are writing notes in charts and admitting their names to a piece of paper or to an electronic medium that says this is their assessment"*. Another CP viewed rural practice as the ideal formative clinical experience because of the variety of opportunities available saying, "*students have no idea of what is coming through the door today … they need to think from the basics up and not make assumptions*". This aligns with most students who wanted to apply what they had learned, stating for example, that their aim was "*to find out if I can do (clinical skills) with actual patients*". As such the RRCPs aim to increase clinical confidence. Over and above generic clinical skills, however, the CPs articulated aims specifically connected with rural practice.
(iii) The impact of rurality on medical practice. The first, mentioned by all CPs, was to have students understand how rural medicine was different from that in large centres, and how rurality impacts rural practice. One CP said "*students trained in the cities just don't know what to do here*", while another said "*it is important too for (students) to know what rural practice is like, whether they do it later or not, because knowing that will benefit rural populations as they will be able to work better with (rural physicians)".* Similarly, a student stated "*I want to experience rural medicine first hand*". This aim, to know about rural practice, was shared by students all of whom wanted to find out what rural practice entailed.
(iv) Knowledge of rural healthcare systems. CPs viewed knowledge of how rural health systems operated as key learning objective for students. One IL said, "*(students) need to know what facilities and resources are available here and how to use these to provide care*" and "*there are limits to what you can do here, so they need to know when and what to do when these limits are reached*". This was also articulated by one student stating the wanted to know "*what healthcare facilities were available to physicians*".
(v) The importance of health care teams and interprofessional practice. Most CPs articulated a teaching aim of showing how important it was for rural physicians to be able to work in teams and being effective interprofessional practitioners: "*Team work happens much more frequently in small communities than in the larger urban centres; a lot of talk about it in the big cities, but [it] actually happens more effectively in small communities since there is never enough (practitioners) so they all have to work together".*
(vi) The importance of generalism. The need to have a broad base of knowledge and skills to be a successful rural practitioner was a common teaching aim; for example said one CP "… *students need to know you cannot practice in those kinds of settings unless you are a generalist, unless you are delivering babies, and doing urgent care, and caring for patients in nursing homes, and dealing with public health crisis …they need to realize that's what it's about and decide if they like that*".

Theme five: Living in place as a rural physician

(i) Knowledge of rural communities. All ILs thought the RRCPs were not just about rural medical training but also about what being a member of a rural community is like, with a typical comment being "*It's about (them) knowing what rural life is really like, particularly those who have grown up elsewhere".* This was mirrored by several CPs; for example one stated *"they need to get out and socialize and see what rural living is like. If they think there is nothing to do and they will never come back, that's good to know too".*

(ii) Living as a physician outside of the clinic. Learning about how a physician lives in a small rural community was also considered to be a major objective of the placement by CPs, particularly with respect to living alongside those they serve, including matters related to professionalism, particularly that of confidentiality and social behavior. For example, one CP stated "*Learners need to experience what it feels like to meet someone in a social setting who they saw recently in the clinic"*, another that "*there is a layer of professionalism that is a bit different in small communities than in large urban communities where there is the opportunity for some degree of anonymity. The identity of a rural physician I think is a 24/7 sort of identity"*; Such comments allude to the idea that how we relate to, and behave in, a place is dependent on our role, that is that the social relationship with place as a physician differs from that of a non-physician, and that even a student who has grown in the same community must change and adapt (Proshansky et al., 1983). It was notable therefore that while CPs placed an emphasis on these two „off hours" aspects of the RRCP experiences (community knowledge and physician life), no students expressed such aims, confining themselves to the clinical aspects of medicine.

DISCUSSION

The main aims of the RRCPs identified in this study and how they generally align between the institution, community preceptor and student perspectives is summarized in Table 1 with the various dimensions of place-based education (Gruenewald, 2003). Like other early clinical experiences during medical education, the RRCPs allowed students to try out skills gained in the classroom to increase clinical confidence (Hampshire, 1998; Mariolis et al., 2008). As may have been expected, CPs talked at length and in detail about how they wished to promote rural medicine to students with the hope that they would base their future practice in such locations. They also wished to educate students about the distinctive features of rural medicine(Theme 4) such as the importance of generalism and interprofessionalism, topics which align well with studies about rural practice (Hogenbirk et al., 2004; Pashen et al., 2007; Mariolis et al., 2008; Parker et al., 2013; Donato, 2015). Our major finding, however, was the rather divergent views of the participant groups regarding a range of topics falling under broad thematic areas such as social accountability (Theme 1) and living in place (Theme 5). While it is a limitation of the study that the student viewpoint was collected by questionnaire rather than interview, the differences between the three groups are unlikely to be due to the data collection method utilized. These differences can usefully be considered within the theoretical framework of place-based education.

The ideological dimension

It was apparent that all participant groups had common ideas about changing healthcare for the better, focusing on improving health outcomes, increasing the supply of physicians, better meeting community needs, and engaging in equity promoting advocacy initiatives (Theme 1). As such our participants view social accountability in a manner in agreement with the conceptualisation of social accountability as a means to reduce health inequity (Murray et al., 2012; Boelen and Heck, 2015; Reeves et al., 2017). However, disagreement was apparent between the perspectives of the ILs and CPs when the issue of physician recruitment was considered, with some community physicians wanting to attract students to their rural community, not just into rural practice in general.

The political dimension

Such differing points of view relate to the important political dimension of place-based education, which changes over time, both within and between individuals, and highlights that the relationship to a place influences the change people desire to occur (Gruenewald, 2003). Given that the place-relationship of the participant groups varied (CPs, students, and ILs, were permanent, temporary and non-residents respectively), it is perhaps inevitable that each group would have differing political aims and suggests that differing and often conflicting political aims may arise within community-based educational experiences having an explicit social mission. Educators involved in socially accountable place-based educational models would therefore be well advised to prepare for and make visible divergent thinking within the placement curriculum. This idea builds upon a recent study that identifies the need to be intentional about strategies to prepare learners for rural practice (Thach et al., 2018). The study findings also highlight the need to consider how such strategies will play out within communities and the preceptor-student relationship, and to ensure that all those involved in rural community placement experiences are aware of the potential pitfalls. In addition, we suggest that concentrating community placements on how rural communities and rural healthcare is currently organized (the ideological

dimension of place (Gruenewald, 2003)), rather than on the politics of change inherent in social accountability (Boelen and Heck, 2015), may allow students, the institution, and community-clinicians to find common ground.

The social dimension

A second area of disagreement between students on one hand, and ILs and CPs on the other, lies within the social dimension of place (Themes 4 and 5). Both the CPs and ILs colleagues viewed gaining knowledge of the community both inside and outside the clinical environment as important. Such is in keeping with the literature regarding physician retention suggesting that a connection and satisfaction with the community is as important as how satisfied they are with their clinical practice (Pathman et al., 1998; Hanlon et al., 2010; Cameron et al., 2012). However, the aims of the students were entirely focused on the clinical community. This may be due to the student"s novice status and anticipation of experiencing clinical work for the first time being their overriding aim, and that the broader sociocultural exploration of place important to their teachers has little value to them. Forcing students to engage with the broader community could conceivably, therefore, lead to conflict within the teaching relationship.

The perceptual dimension

While experiential place-based learning is inherently perceptual in nature, the result (Theme 3) strongly suggests that there may be little agreement on which specific experiences are desirable, with students focusing on the purely clinical, preceptors valuing a broader experience of rural life beyond the walls of the rural clinic, and the institution wishing students to experience a range of regional place-contexts, from small rural to larger urban. On the other hand, clearly articulating the rationale for a wider engagement with place in the curriculum and linking it to competencies required for rural practice may help to bridge the gap in expectations. In this regard, a recent study (Longenecker et al., 2018) that identified six core competency domains for rural practice, could serve as an important tool for building common language and clinical credibility for the need to learn in, with, and through community. Additionally, this study highlights how place-based pedagogies support the development of the roles outside of the biomedical definition of a medical expert to the non-bioscientific knowledge that is needed to for rural medical training (Kuper et al., 2017).

The ecological dimension

Finally, it was notable that no references to the ecological, the habitat being occupied, were mentioned by any participants. In the era of climate-change and the effects that this will have on human health, a lack of understanding on how the non-human place interacts with healthcare is a significant deficiency which will require the development of new curriculum to address, and which we view as being ideal to being situated in a small rural rather than a large urban setting.

In summary, the expectation of the role of the RRCPs shows some agreement between students, preceptors and institutional leaders but also many areas of divergence, even considering that questionnaires rather than interviews were used to collect data from students. Considering the placements through the lens of place-based educational theory allows one to see the different aims of participants in terms of varying place-relationships. By designing curricula in a way that makes these place-relationships explicit, and which anticipates and manages the varying needs of those who participate in community placements in medical education programs. Future work may usefully investigate the long-term effect of these curricular elements on future career choice and any resulting beneficial reduction in the health inequities experienced by rural communities.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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