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PERSONAL VIEW

Community engagement: a key to successful rural clinical education

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ABSTRACT

Evaluation of rural clinical attachments has demonstrated that the rural setting provides a high-quality clinical learning environment that is of potential value to all medical students. Specifically, rural clinical education provides more 'hands on' experience for students in which they are exposed to a wide range of common health problems and develop a high level of clinical competence. Northern Ontario in Canada is a large rural region that has a chronic shortage of healthcare providers. The Northern Ontario School of Medicine (NOSM) was established with a social accountability mandate to contribute to improving the health of the people and communities of Northern Ontario, and is a joint initiative of Laurentian University, Sudbury, and Lakehead University, Thunder Bay, which are over 1000 km apart. The NOSM has developed a distinctive model of medical education known as distributed community engaged learning (DCEL), which weaves together various recent trends in medical education including case-based learning, community-based medical education, electronic distance education and rural-based medical education (including the preceptor model). The NOSM curriculum is grounded in Northern Ontario and relies heavily on electronic communications to support DCEL. In the classroom and in clinical settings, students explore cases from the perspective of doctors in Northern Ontario. In addition, DCEL involves community engagement through which communities actively participate in hosting students and contribute to their learning.This paper explores the conceptual and practical issues of community engagement, with specific focus on successful rural clinical education. Community engagement takes the notion of 'community' in health sciences education beyond being simply community based in that the community actively contributes to hosting the students and enhancing their learning experiences. This is consistent with the focus on social accountability in medical education. Implementing community engagement is quite challenging; however; its potential benefits are substantial and include the improved recruitment

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and retention of healthcare providers who are responsive to cultural diversity and community needs and are collaborating members of the whole health team.

Key words: clinical education, community engagement, distributed learning, rural health workforce.

Australia was at the forefront of developments in rural clinical education with the introduction of Rural Health Training Units in rural regional hospitals, and government-funded initiatives through the Rural Undergraduate Support and Coordination Program, University Departments of Rural Health and Rural Clinical Schools[1,2,3]. In other countries, rural clinical education developed through rural tracks and rural-based medical schools[4]. As these initiatives progressed, the role of rural communities in rural clinical education has grown and developed. This paper presents community engagement as an important contributor to successful rural clinical education.

Rural clinical education

The development of rural clinical placements by medical schools was initially driven by the workforce imperative. The expectation was that experience in rural settings would encourage a future interest in rural practice. Subsequent research evidence has demonstrated that this expectation was justified. Studies have shown that three factors are most strongly associated with entering rural practice: (i) a rural background; (ii) positive clinical and educational experiences in rural settings as part of undergraduate medical education; and (iii) targeted training for rural practice at the postgraduate level[5-12].

Since the mid-1980s, research evidence has been accumulating that there is a specific range of knowledge and skills required by rural practitioners. When compared to their metropolitan counterparts, rural practitioners provide a wider range of services and carry a higher level of clinical responsibility in relative professional isolation[13]. This has led to the inclusion of specific curriculum content on rural health and rural practice in undergraduate medical programs and in rural-based family medicine residency programs[14-16].

In addition, evaluation of rural clinical attachments has demonstrated that the rural setting provides a high-quality clinical learning environment that is of potential value to all medical students[17]. Specifically, rural clinical education provides more hands-on experience for students, with the result that they are exposed to a wide range of common health problems and develop greater procedural competence[18].

Northern Ontario School of Medicine

The size of Germany and France combined, Northern Ontario is geographically vast (approximately 800 000 km^2), yet it has a relatively small population (840,000). Although part of Ontario, the most populated province in Canada, Northern Ontario is a distinct region with different economic and social characteristics from the southern part of the province. Sixty percent of the population lives in rural and remote communities and there is a diversity of communities and cultures, most notably Aboriginal and Francophone peoples. Thirty percent of the Northern Ontario population lives in the two larger urban areas of Thunder Bay (120 000) and Sudbury (150 000).

Like many rural regions around the world, Northern Ontario has a chronic shortage of healthcare providers. Recognizing that medical graduates who have grown up in a rural area are more likely to practice in the rural setting, the Government of Ontario decided in 2001 to establish a new medical school in the region, with a social accountability mandate to contribute to improving the health of the people and communities of Northern Ontario[19]. The Northern Ontario School of Medicine (NOSM) is a joint initiative of

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Laurentian University, Sudbury, and Lakehead University, Thunder Bay, which are located 1000 km apart. It is a rural distributed community-based medical school that actively seeks to recruit into its MD program students who come from Northern Ontario or from similar northern, rural, remote, Aboriginal or Francophone backgrounds. The holistic, cohesive curriculum for the MD program relies heavily on electronic communications to support distributed community engaged learning. In the classroom and in clinical settings, students explore cases from the perspective of physicians in Northern Ontario. Clinical education takes place in a wide range of community and health service settings, so that students experience the diversity of communities and cultures in Northern Ontario. As well as having campuses over 1000 km apart in Thunder Bay and Sudbury, the NOSM also has more than 70 teaching and research sites distributed across Northern Ontario[20].

Clinical learning begins at the start of year 1 of the program with two half-day sessions each week, one with standardized patients in the clinical skills lab, the other at community learning sessions in a range of health and welfare settings in Sudbury and Thunder Bay. In addition, all students, in pairs, have a four-week integrated community experience (ICE) in Aboriginal communities at the end of first year, and two, four-week ICE placements in rural and remote communities with populations of less than 5000 during their second year. Approximately one-third of the Aboriginal communities are reserves with no road access. During the ICE placements, students continue their small-group learning by connecting electronically in the virtual learning environment. The third year of the NOSM curriculum is an immersive experience known as the comprehensive community clerkship (CCC). This mandatory longitudinal integrated clerkship involves students living and learning in 12 large rural or small urban communities outside Sudbury and Thunder Bay for the full academic year. During the CCC, students are based in family practice where they meet patients and follow them, including into specialist and/or hospital care. Supervised clinical experience is complemented by direct teaching from local and visiting specialists and family physicians as well as by distance education.

Community engagement at NOSM: Community engagement is a hallmark of NOSM. Development of the MD program curriculum began in January 2003 with a three-day curriculum workshop attended by over 300 participants drawn from across the sectors of all parts of Northern Ontario. Specific workshops involving Aboriginal people were held in 2003 and 2006, and the symposium ‘Francophones and the Northern Ontario School of Medicine’ was held in 2005. A second Francophone symposium was held in September 2007. In addition, community members are involved with NOSM through the selection and admissions process for the MD program, as standardized patients, and in hosting students during their CCC and ICE placements.

Through community engagement, community members are actively involved in hosting students and contributing to their educative experience. Community engagement for NOSM is consistent with the its social accountability mandate and has a particular focus on collaborative relationships with Aboriginal communities and organizations, Francophone communities and organizations, and rural and remote communities, as well as the larger urban centres of Northern Ontario. For NOSM, community engagement occurs through interdependent partnerships between the School and the communities whereby the communities, through local NOSM groups, are as much a part of NOSM as the main campuses in Thunder Bay and Sudbury. These relationships are fostered through the Aboriginal Reference Group, the Francophone Reference Group, local NOSM groups, and a vast network of formal affiliation agreements and memoranda of understanding.

Community-based medical education

Paul Worley’s studies of the Flinders University Parallel Rural Community Curriculum (PRCC)[21] have shown that the success of students learning medicine in rural communities is based very much on relationships. These are the student–teacher, student–student, and student–community relationships across the clinical, institutional, social and personal dimensions[22]. A key to improving learning is to pay

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attention to these relationships as part of the curriculum. Through community engagement, the focus is on the student–community relationships.

Community-oriented medical education was developed in the late 1960s and 1970s with the intent that medical students learn not only about the biomedical and clinical scientific basis of patient problems but also about the community context and how it affects patients and their clinical problems[23]. Community-based medical education developed out of community-oriented medical education in that students do not just learn about the community context in the classroom; they also learn about it in different social and clinical environments. Specifically, clinical learning takes place in a wide range of community and health service settings, not only in large acute teaching hospitals[24]. Clinical learning sites include mental health services, long-term care facilities and family practice clinics, as well as hospitals and health services in remote, rural and urban communities. Community-based medical education developed due to the recognition that a relatively small proportion of the population is cared for in large acute teaching hospitals and that trends in health care are towards greater community-based care, with acute hospitals focusing more on short-stay, high-technology interventions for rare or serious and often complex multisystem conditions[25].

The development of community-based medical education in the 1980s and the 1990s provided the basis for suggestions that students would benefit from prolonged community-based learning, specifically in family practice, in which they could learn the core clinical medicine. In North America this is known as a 'clerkship'[26]. In the urban setting, this approach was developed at Cambridge University in England[27], and in rural family practice it became part of some 'rural tracks' that were established by several US medical schools, beginning in the 1970s[28,29]. As has been mentioned, it was the PRCC of Australia's Flinders University that provided the most comprehensive research evidence of the value of community-based medical education in rural family practice[21,30].

Community engagement takes the notion of 'community' in health sciences education a step further in that the community actively contributes to hosting the students and enhancing their learning experiences. This is consistent with the focus of social accountability in medical education, which is defined by the WHO as 'the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region and the nation that they have a mandate to serve'[31].

Through community engagement, the medical school and the community establishes an interdependent partnership through which the community is actively involved with the medical school in education, research and community development activities. The community not only ensures that the students feels 'at home' in the community, but it also contributes to their educative experience, particularly their understanding and knowledge of the local social determinants of health.

Implementing community engagement: The implementation of community engagement is quite challenging. The first challenge is to not accept the conventional wisdom that the University is an ivory tower separated from the 'real world' community. Persuading community leaders and committee members that the medical school is serious about equal partnership requires considerable discussion. It is important to ask questions, challenge assumptions and always to listen closely to the communities' perspectives. Geographic, social and cultural diversity must be seen as a strength and an opportunity rather than an impediment or barrier to cooperation and collaboration. Successful community engagement depends on empowering the community to be a genuine contributor to all aspects of the medical school. This is facilitated by formal affiliation agreements, collaboration agreements and memoranda of understanding that set out the roles and functions of the partners, including the local steering committee which coordinates medical school activities in the community. The steering committee provides a mechanism by which the medical school is a part of the community and the community is a part of the medical school. Successful

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community engagement also depends on continuing interaction through 'engagement and re-engagement' on a regular basis.

Benefits of community engagement: The potential benefits of community engagement are substantial. First, community engagement is likely to improve the supply of skilled healthcare professionals who are responsive to the social and cultural needs of the community, including those of indigenous, rural and remote communities. In addition, community engagement is likely to enhance professional cooperation and health team functioning, improve access to health care in rural areas and stimulate health research that is grounded in the rural and remote community context.

Conclusion

This paper has reviewed the importance of rural clinical education, introduced community engagement at the Northern Ontario School of Medicine, and outlined the principles and practice of implementing community engagement. Active participation of communities through community engagement has the potential not only to enhance rural clinical education, but also to provide substantial benefits for the communities themselves.

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