Reflective practice and social responsibility in family medicine

Effect of performing an international rotation in a developing country

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Abstract

Objective To explore the perceived effect of an elective international health rotation on family medicine resident learning.

Design Qualitative, collaborative study based on semistructured interviews.

Setting Quebec.

Participants A sample of 12 family medicine residents and 9 rotation supervisors (N=21).

Methods Semistructured interviews of residents and rotation supervisors.

Main findings Residents and supervisors alike reported that their technical skills and relationship skills had benefited. All increased their knowledge of tropical pathologies and learned to expand their clinical examinations. They benefited from having very rich interactions in other care settings, working with vulnerable populations. The rotations had their greatest effect on relationship skills (communication, empathy, etc) and the ability to work with vulnerable patients. All of the participants were exposed to local therapies and local interpretations of disease symptoms and pathogenesis.

Conclusion The findings of this study will have a considerable effect on pedagogy. The residents' experiences of their international health rotations and what they learned in terms of medical skills and pedagogic approaches in working with patients are described. Using a collaborative approach with the rotation supervisors, the data were triangulated and the benefits of an international rotation on academic training were more accurately defined. The findings can now be used to enrich academic programs in social and preventive medicine and more adequately prepare future family physicians for work in various social and cultural settings.

EDITOR'S KEY POINTS

- Canadian family medicine residency programs place little emphasis on international rotations. Yet, participants reported that their international rotations were watershed moments in their choice of career.
- Through participation in an international rotation, future family physicians become more aware of their patients' social and economic realities. They become more aware of the importance of bringing cultural values into their understanding of their patients' health. International rotations develop their cultural sensitivity, humanistic values, and ideals, as well as their appreciation for a community approach to health care and their interest in a career in primary health care.
- A sample containing both residents and supervisors is a unique feature of this research study.

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Despite an increasing demand for international health rotations and the multitude of changes physicians are witnessing in their practices (eg, culturally diverse patient populations, a growing gap between "haves" and "have-nots"), Canadian medical residency programs place little emphasis on international rotations.[1] Offers of international rotations in medicine are rare, yet several studies have demonstrated that they increase resident interest, particularly among family medicine residents,[2,3] in working with vulnerable populations. There are very little data on participant experience in terms of awareness of health equity, reflective practice, or the effect of such a rotation on practising family medicine in culturally or socially different settings.[4] Several authors[5-7] suggest that international medical experience has the potential to promote cultural competence, knowledge of global health, and a commitment to caring for vulnerable patients. Taking part in an international rotation develops future physicians' cultural sensitivity, humanistic values, and ideals; it develops their appreciation for a community approach to health care and increases their interest in a career in primary health care.[8]

Data from a study on physicians' social competence in the provision of care to persons living in poverty[9] reveal that participation in an international rotation was a watershed moment in the physicians' choice of career. They reported that these rotations had raised their awareness and equipped them to work with vulnerable populations. This was also true in findings from studies by Ramsey et al,[2] Bazemore et al,[3] and Godkin and Sauvageau[8] in other provinces where international rotations are offered. We know that the doctor-patient relationship in a culturally or socially different setting poses many challenges[10] and that a lack of knowledge about poverty and the misconceptions that physicians and other professionals develop about poverty affect the quality of their clinical interactions.[10-12] However, we know less about the positive factors that enable physicians to develop strong therapeutic alliances with their patients from different social and cultural backgrounds.

The objective of this article is to present findings on the perceived effect of an international health rotation on family medicine residents. Four-week rotations in Haiti, Uganda, and Mali are offered in the Faculty of Medicine at the University of Sherbrooke in Longueuil, Que. During these rotations, residents work with local health professionals (physicians and nurses) in a health facility (a community health centre or mobile clinic). Under the guidance of their supervisors, they treat a range of health concerns (chronic and acute illness, pregnancy, etc). In the process, they acquire an awareness of the effect of the social and economic determinants of health, the distribution of health care, and different ethnic, cultural, and social realities.

METHODS

This study is based on a qualitative research design and collaboration with a multidisciplinary team consisting of a sociologist (C.L.), an anthropologist (T.G.), and 4 physicians (C.V., F.C., R.W., P.M.R.) supervising international rotations in family medicine at the University of Sherbrooke. All of the team members were involved in every stage of the research, from development of the protocol to validation of the interpretation of the study data. Development of the interview guide was a team process; this ensured that the interview guide reflected the research interests of the physician supervisors who had created the rotation program at the University of Sherbrooke. The interview guide consisted of 30 items divided into 4 areas: the residents' social and demographic characteristics, their perceptions of the international rotation, their reasons for choosing this rotation and practising family medicine, and opportunities for improving medical training. We chose a mixed purposive sample of residents and supervisors. We wanted to recruit rotation supervisors to learn their points of view on the effect of the rotation for future physicians to make it easier to triangulate our data. The rotation coordinator at the University of Sherbrooke provided us with the contact information for 25 residents and 15 supervisors who had participated in an international family medicine rotation between 2009 and 2014. Of these, 12 residents and 9 supervisors (N=21) expressed an interest in the study and completed a consent form before participating in an interview. A research assistant (T.G.) with training in qualitative research conducted 6 interviews in person; owing to distance constraints, the other 15 interviews were conducted by telephone.

The semistructured interviews were digitally recorded and the participants were then de-identified. The interviews lasted 60 to 75 minutes. At the end of each interview, the researcher completed an interview report and submitted it to the researchers. The interviews were then transcribed, coded, and analyzed in a Microsoft Excel spreadsheet, using the themes in the interview guide (ie, perceptions of rotation, perceptions of medical training, suggestions for improvements, reasons for choosing rotation). During transcription, there was also an initial triage of the findings to identify points of difference and similarity among the interviews. This preliminary analysis was discontinued once data saturation had been reached (recurrence of themes, experiences, and points of view). Our method of analysis was based on an inductive approach using an analytical grid by category.[13] We chose to favour the frequency with which our respondents referred to the themes.

This study was approved by the research ethics board at Hôpital Charles-LeMoyne in Longueuil.

FINDINGS

All 12 residents interviewed were women; only 1 was older than 30 years (**Table 1**). Of these, 8 had not yet practised medicine independently at the time of the interview and 4 had 5 or fewer years of professional experience. Seven residents had performed a rotation in Haiti; 4 had performed a rotation in Mali; and 1 had performed a rotation in Uganda. Of the 9 supervisors interviewed, 4 (3 women and 1 man) were between the ages of 51 and 60 years. Of these, 3 had been practising for more than 15 years and 1 had been practising for more than 10 years. Three other supervisors (all women) were between the ages of 31 and 40 years and had been practising for at least 6 years. The remaining 2 supervisors were 30 or younger and had only been practising for 5 years. The supervisors supervised a minimum of 2 and a maximum of 15 rotations.

Our analyses revealed that the international rotations had 5 main benefits for practising family medicine (**Box 1**). These benefits, perceived and shared by the residents and supervisors alike, were better medical skills, increased awareness of the effect of social and economic factors on health and access to health care, increased awareness of social and cultural factors, changes in their perceptions of their patients, and reflection on their own medical practice.

Better medical skills

Close to half of the residents and all of the supervisors reported that performing an international rotation had honed their medical skills. Residents reported that it had enabled them to apply their knowledge of tropical diseases. Several reported that working in a health setting with less technology and fewer resources had forced them to rely less on additional medical tests (eg, laboratory tests, imaging) and more on their own clinical judgment. As a result, they reported placing more emphasis and attention on the medical interview and the physical examination. Many of the residents and all of the supervisors reported that they had integrated an enhanced differential diagnosis and the patient's own explanatory model into their medical practices.

> I learned to practise with whatever was at hand. We worked in a village. We didn't have the same resources we have at home. So, when I came back, I realized how many tests we order. It made me think. I learned to rely more on my clinical judgment. (Resident 3)

Awareness of the effect of social and economic factors on health and access to health care

All of the participants (residents and supervisors) agreed on one point: that an international rotation had raised their awareness of the effect of social and economic factors on health. All agreed that these factors led to

Table 1. Participant characteristics: *N* = *21*.

CHARACTERISTICS	NO. OF RESIDENTS (N = 12)	NO. OF SUPERVISORS (N = 9)
Age, y		
• 21-30	11	2
• 31-40	1	3
• 51-60	0	4
Sex		
• Female	12	7
• Male	0	2
Practice duration, y		
• 0	8	NA
• < 1-5	4	3
• 6-15	0	3
• > 15	0	3
International rotation settings		
• Mali	4	7
• Haiti	7	6
• Uganda	1	2

NA—not applicable.

Box 1. Effects of an international rotation in family medicine on both residents and supervisors

Better medical skills
- Better knowledge of medical pathologies
- Better physical examinations
- Less reliance on technology

Awareness of the effect of social and economic factors on health and access to health care
- Adaptation of medical prescriptions to patients' economic resources
- Helping patients to navigate the health system

Awareness of social and cultural factors
- Increased awareness of body language, cultural codes, and language
- Awareness of medical pluralism
- Respect for the patient's own interpretation of the disease

Changes in resident and supervisor perceptions of patients
- Negotiating an approach to care with the patient
- Maintaining an open-minded, collaborative attitude toward the patient

Self-reflection
- The ability to relativize their condition as Westerners
- Identification of local social cohesion that transcends poverty
- Critical reflection on humanitarian aid
- Comparison of the status of women in Canada and in the rotation country

precarious living conditions (eg, income, shelter, employment, nutrition). All reported that, once back home, they were more aware of social and economic factors in their medical questionnaires and in their treatment plans for their Quebec patients. Repeatedly, residents reported that they were more selective in ordering additional tests for their low-income patients, a point that their supervisors confirmed. A few residents reported that they engaged more with their underprivileged patients, and became more involved in their medical follow-up and helped them to find their way around the health care system. For example, they made telephone calls to schedule appointments and followed up on the medical files of at-risk patients.

> Now, when I see a patient with psychological challenges, social challenges, money problems, I'm more likely to go a little further, dig a little deeper, see what's going on in their lives. I pay more attention to the drugs I prescribe—the cost. (Resident 1)

Awareness of social and cultural factors

An international rotation is a culturally immersive experience. In their daily contact with Haitian, Malian, and Ugandan patients, the residents grasped that these patients used other models to understand their symptoms and seek treatment. Several residents found their patients' recourse to traditional medicine to be a real challenge. Encountering traditional medicine practices caused all of the residents to reflect on their own model for understanding disease.

> I think that maybe working with patients with a different ethnicity, that maybe it changed my way of thinking, maybe it helped me to understand that health is first and foremost cultural. How we articulate a problem, how we experience symptoms—all of that is really a function of our culture. It really opened my eyes. (Resident 7)

Several supervisors reported that, after 10 days, residents developed new skills and behaviour for interacting with their patients, indicating that they had adapted to working with patients from a different culture. According to our participants, this resulted in greater consideration for the beliefs and values of the patients' social and cultural environment.

> In the second part of the rotation, as they became more confident in their physical examinations and in their judgment, they really started to blossom. Quite apart from the technical skills, I think the rotation broke down a lot of social and medical prejudice. (Supervisor 1)

Changes in resident and supervisor perceptions of patients

Through their exposure to other belief systems and practices, all of the participants reported that they thought differently about their patients. They reported that they had evolved in their way of perceiving, speaking with, and interacting with patients, irrespective of cultural background. They were more attentive to their own body language and ways of speaking. They altered their approach to care and were more open to negotiating care or to their patients' refusal of care or personal interpretations of their symptoms. In the process of collaborating with their patients, the participants' vision of family medicine also changed. For many supervisors and residents, this collaborative approach to care, with its listening and open-mindedness, to which few had been exposed during their academic training, became an inherent part of their doctor-patient relationships.

> Before, my approach had always been, "I prescribe what is best for the patient." But then I had patients who said, "Um, no, I don't want that, even if it's the best there is." Now I am more likely to accept that a person does not necessarily want the best treatment there is. They want what's best for their reality. (Resident 5)

Self-reflection

A rotation in international health affects participants to varying degrees, and participant perception of this experience is shaped by a number of variables. Age, social class, previous international travel, medical rotations with vulnerable populations, and awareness gained from reading about social and societal phenomena are all factors that led participants to reflect on their own situation. After their rotations, most of the residents and all of the supervisors reflected on their patterns of consumption, on their roles as physicians in society, and on medicine in general. Some were critical of Western neocolonialism in the southern hemisphere and of humanitarian interventions that often did not improve the living conditions of the people in these countries. The residents were very moved by the social cohesion and bonds that exist in impoverished communities. Many realized just how different their roles and status were from the roles and status of women in their rotation host country.

Having the supervisors participate in the study enabled us to refine our data, as we were able to compare their perceptions to those of the residents. Overall, the supervisors validated what the residents had to say; they added perspectives that reflected their years of practice and supervision (**Box 2**). What was clear from the supervisors was that the international rotation experience led to a greater sense of humility regarding Western medicine and to expertise in caring for immigrants and refugees.

In terms of medical skills, the supervisors' perception of a more autonomous medical practice correlated with

Box 2. The supervisors' perceptions of the effects of an international rotation

Reinforcement of medical skills
- A more autonomous medical practice

Awareness of the effect of social and economic factors on health and access to health care
- Development of critical awareness of the political system and the health system
- An interest in the literature on social and economic disparities

Awareness of social and cultural factors
- A greater sense of humility regarding Western medicine

Changes in perceptions of patients
- Increased ability to work with migrant patients
- Better collaboration with interpreters

Self-reflection
- Awareness of one's role as a citizen in society

the residents' sense of having less reliance on technology. Some of the supervisors had developed an interest in the effect of social inequality on health. Their reading and thinking about productivism, the belief that measurable economic productivity and growth are the purpose of human organization and that more production is necessarily good, enriched their experience of practising medicine in vulnerable communities and helped them to more fully understand the connections between poor living conditions and poor health in some of their patients.

DISCUSSION

The objective of this study was to explore the perceived effect of an elective rotation in international health on family medicine resident learning. Taking a collaborative approach enabled us to more fully understand and investigate the benefits of international rotations for family medicine training.

It should be noted that the rotation is offered not only to University of Sherbrooke residents but to residents in other faculties of medicine as well. This suggests that our study findings can be used to update the curricula of medical training programs; identify ways to enhance medical training; and more adequately prepare family physicians to work in socially and culturally diverse settings, particularly settings with underserved, marginalized, or immigrant populations. Thus, our study findings could inspire international rotation supervisors to enhance the quality of social and preventive medicine programs.

As a number of studies confirm,[14,15] international experience, particularly in developing countries, is one way to increase or develop technical knowledge (of pathologies, of the physical examination, etc) and knowledge of human relationships (interactions, communication skills, the ability to work collaboratively, etc). The concept of cultural competence[16] has been amply described in the literature regarding the skills that practitioners need to work in culturally different settings. It is a competence that these rotations attempted to develop.[17,18] *Cultural competence* has been defined as behaviour, attitudes, and policies that enable a system, agency, or group of professionals to work effectively in cross-cultural situations.[19]

The results of this study corroborate the results of previous studies involving medical specialists. These international rotations enable students to develop or strengthen their cultural competence and might encourage them to work with underserved populations. We were able to ascertain that they had acquired these skills through their discourse. They talked about self-reflection, being open to diversity and medical pluralism, and creating more egalitarian relationships with their patients. Above and beyond this confirmation, part of the originality of our research is the fact that our sample contained both residents and supervisors. Findings from our interviews with residents were echoed by the findings from the interviews with the supervisors, who were also able to draw on their more extensive experience. The relevance of this research can be seen in the views expressed by the rotation supervisors. As was often mentioned by the residents, the supervisors accompanied the residents throughout their rotations, listening to them and counseling them. During the rotations, the supervisors provided the residents with support for learning techniques and relationship skills.

The objective of these international rotations, just like the acquisition of cultural competence, is not to acquire quantifiable, finite knowledge such as a language or a set of cultural characteristics. As Paashe-Orlow[20] points out, cultural competence is more than cultural awareness; it is cultural humility.[21] Several supervisors added to the discourse of the residents, noting the importance of their role as citizens, as well as their role as physicians. These rotations appear to have provided them with an opportunity to reflect on this status. Both the supervisors and the residents in this study reported that they brought greater humility to their practices, particularly in terms of sharing knowledge and questioning their own models for explaining disease.

Limitations

Because the rotation was an elective, and because our subsample of residents was exclusively female, selection bias might have occurred. Thus, the residents who took part in our study might have been more open and aware than other residents and physicians to start with.

Conclusion

Participation in international rotations is of benefit to the practice of family medicine for both residents and medical supervisors. Future family physicians are more aware of their patients' social and economic realities. They are more aware of the importance of bringing cultural values into their understanding of their patients' health. The experience of a rotation in family medicine fosters the development of social competence in a number of different areas. The attention that has been placed on the social dimensions of family medicine in this article will help to increase interest in the development of social medicine in medical education. Other studies, incorporating quantitative methods and ethnographic observations, could make it possible to further develop our knowledge of the effect of these international rotations on the practice of medicine.

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Contributors

All authors contributed to this article. **Dr Loignon** led the development of the research protocol, supervised data collection, and helped with data analysis and the preparation of this article. **Mr Gottin** collected data, analyzed the results, wrote the first draft of the article, and helped to bring it to its final form. **Drs Valois**, **Couturier**, **Roy**, and **Williams** provided expertise at every key stage: research protocol development, participant recruitment, validation of data interpretation, and writing the article.

Competing interests

None declared

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