Enhanced Patient-Centred Care: Physiotherapists’ Perspectives on the Impact of International Clinical Internships on Canadian Practice

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ABSTRACT

Purpose: To explore the perspectives of physiotherapists who participated in an international clinical internship (ICI) in low- or middle-income countries (LMICs) during their physiotherapy (PT) training in a Canadian PT programme regarding the ICI’s impact on their PT practice in Canada. Methods: This qualitative descriptive study used in-depth semi-structured interviews. Data were organized using NVivo; inductive and deductive coding were used to analyze data and develop broader themes. Results: The 13 practising Canadian physiotherapists interviewed described three enhanced capacities: (1) critical reflection on culture, values and practice; (2) communication skills; and (3) creativity and resourcefulness. These capacities were perceived to transfer to Canadian practice by enhancing participants’ ability to deliver patient-centred care, specifically through an enhanced understanding of patients’ values and social determinants of health, regardless of the Canadian setting or patient population. Conclusions: For PT students considering an ICI, the study findings provide insight into the perceived impact of ICIs on Canadian practice. For PT academic programmes, the findings can guide decisions on the extent of investment in ICIs as learning opportunities that will enhance practice in Canada.

Key Words: culturally competent care; global health; internship and residency; patient-centred care.

A growing number of health care students, including physiotherapy (PT) students, are expressing a desire to “learn and contribute in diverse contexts beyond their own countries.”1(p.337) In pursuit of this goal, they are requesting and participating in clinical fieldwork training, also known as international clinical internships (ICIs), in low- or middle-income countries (LMICs).2–6 For PT programmes at Canadian universities, there is a corresponding opportunity to gain prestige in the increasingly popular realm of global health by responding to student...
requests for ICIs, as well as to public demands for global health initiatives. For the purposes of this article, global health is understood as a convergence of public health and international health, with emphasis on a multidisciplinary approach to improving health equity for all people.

Increased participation in ICIs has led to a greater understanding of their benefits and challenges for students in general, but little research has focused on PT. To date, the only known study to investigate the impact of ICIs from a PT perspective is that of Crawford and colleagues, which explored the history, current trends, and future implications of ICIs in Canadian PT clinical education as part of a survey. The PT students surveyed reported that their ICI exposed them to diverse clinical scenarios, offered opportunities to assist host communities, and increased their appreciation for the resources of the Canadian system. They also reported that their ICI experience better prepared them to advocate for the role of PT at the community level and broadened their perspective on community health education and promotion. Finally, they speculated that skills and learning experiences from ICIs could be applied to future PT practice.

Crawford and colleagues noted, however, that their participants were students and not practising physiotherapists and that only one survey question addressed the impact of ICIs on current PT practice. Moreover, only five of the eight student participants had conducted their ICIs in an LMIC. Thus, empirical evidence addressing the impact of ICIs in LMICs on PT practice in Canada is lacking.

PT practice in Canada is informed by the Essential Competency Profile for Physiotherapists in Canada (ECP), a foundational document comprising seven key roles required of all Canadian physiotherapists at entry to practice and throughout their careers: expert, communicator, collaborator, manager, advocate, scholarly practitioner, and professional. For physiotherapists engaging in global health, Cassady and colleagues have identified three additional roles—global health learner, critical thinker, and respectful guest—as crucial competencies for engaging meaningfully in international clinical settings. However, to date there has been no research on how ICIs affect Canadian PT practice with respect to either the ECP’s seven roles or the three additional roles suggested by Cassady and colleagues.

These gaps in the literature limit PT students’ ability to make informed decisions about ICIs. They also affect academic PT programmes that are considering the role of global health educational experiences within their curricula. These are important shortcomings, given the considerable commitment and costs required on the part of both sending and receiving institutions involved in ICIs. Our objective in this study, therefore, was to explore the perspectives of physiotherapists currently practising in Canada on how their past ICI in an LMIC has affected their current practice.

METHODS

This study was approved by the research ethics board at the University of Toronto; all participants provided informed consent.

Participants

Our qualitative, interpretive study used semi-structured interviews to examine participants’ experiences and perceptions. We recruited participants who had completed an ICI in partial fulfillment of a university degree in an accredited Canadian PT programme, had completed an ICI in an LMIC, had at least 2 years’ work experience, and held a current licence from their provincial or territorial regulatory body at the time of the study. These criteria were designed to ensure that participants had similar educational backgrounds and sufficient duration of clinical practice to allow them to incorporate their ICI experiences into their practice.

Our open invitation was disseminated to a wide constituency, including our own professional networks and the databases of the International Centre for Disability and Rehabilitation (ICDR) and the Global Health Division of the Canadian Physiotherapy Association (CPA). The ICDR focuses on global issues related to disability and rehabilitation and helps organize ICIs for PT students at the University of Toronto. The CPA’s Global Health Division plays a role in promoting access to PT around the globe, particularly in LMICs. The invitation to participate was also included in CPA’s e-blast to all members and sent to the Directors of Clinical Education for all Canadian PT programmes.

Data collection

Four student team members conducted in-depth, semi-structured interviews, approximately 60 minutes long, in person, by phone, or via Skype (audio only). To ensure consistent technique, the interview process was rehearsed and piloted. The interviews were conducted in private rooms and audio recorded. To increase rigour, the audio recordings were transcribed verbatim by another team member and then reviewed for quality by the interviewer. Participant confidentiality was maintained by excluding all identifying information from the transcripts and storing all data on a secure online server.

The interview guide had three sections: (1) closed-ended demographic questions, (2) open-ended questions about participants’ ICI experiences and perceptions of their impact on current practice, and (3) open-ended questions about the impact of ICIs on current practice based specifically on the seven roles described in the ECP (collaborator, communicator, manager, advocate, scholarly practitioner, professional, and expert) and the...
three additional global health roles defined by Cassady and colleagues\textsuperscript{11} (critical thinker, global health learner, respectful guest; see online Appendix).

**Data analysis**

Data analysis followed Flicker and Nixon’s\textsuperscript{15} DEPICT method of collaborative qualitative analysis (dynamic reading, engaged codebook development, participatory coding, inclusive reviewing and summarizing of categories, collaborative analyzing, translating). After interview transcription, we developed a coding framework implementing inductive and deductive codes (based on ECP roles), which we piloted on three transcripts to refine code descriptions and remove redundancies. Each transcript was then coded independently by two team members using an open coding technique.\textsuperscript{13} We used NVivo 10 qualitative analysis software (QSR International, Cambridge, MA) to organize all data. The data were sorted by code, and each code was summarized by the research group. From these summaries, we developed broad themes that were further refined into the results presented next.

**RESULTS**

A total of 13 Canadian physiotherapists met our inclusion criteria and completed interviews (see Figure 1). When asked to reflect on how their ICI affected their current PT practice in Canada, participants described the development of three core capacities: (1) critical reflection on culture, values, and practice; (2) effective communication; and (3) resourcefulness and creativity. They described their growth in these areas as translating into current PT practice through enhanced understanding of patient values and of social determinants of health, ultimately improving their ability to provide patient-centred care (see Figure 2). These findings are described in more detail in the following sections.

**Three core capacities developed during international clinical internships**

**Enhanced capacity to critically reflect on culture, values, and practice**

Participants described how exposure to profound social differences prompted critical reflection on their daily experiences during the ICI through methods including journaling, actively rethinking key events, and debriefing with peers. They explained how reflection helped them to develop insight into their own culture, values, and biases and into how these factors can influence their clinical practice. Participants also reported becoming more aware of how they were perceived because of, for instance, their North American identity or educational background:

I think I disappointed her [preceptor] … it was my first paediatric placement and I can’t speak for her exactly, but I think she was looking for some give and take … “This person comes from Canada. Is she bringing anything to the table?!” (07)

Participants described becoming acutely aware of the importance of understanding local culture and values—more specifically, understanding patients’ individual priorities and how these priorities related to the local context:

It’s really trying to respect how people accommodate … so somebody would use a wheelbarrow, for example, to take their family members around. When I first got there, I was appalled. Then I realized that it was functionally better for this person … you become sensitive to understanding local competencies. (08)
Participants also mentioned reflecting on cultural differences related to socially acceptable gender roles in the context of health care:

There was this one lady that I worked with . . . her husband never came to visit her [in the hospital] and he didn’t want to pay money for her stay or for her treatment. And the part that was really hard was the injustice of it all . . . there were some funds available but she also needed his consent. (6)

They also described reflecting on polygamy:

One thing I struggle with is the idea of polygamy in Kenya. There are a lot of men that have more than one wife and it impacts them more than you know. So acknowledging that you know, but being respectful of it and professional in terms of the conflicts that can arise. (11)

Some participants also spoke to differences in cultural views on people with disabilities. When working in cultural contexts in which people with disabilities appeared to be treated as less valuable, participants described their struggles to balance their own views with being respectful and maintaining professionalism in the clinical setting.

The concept of living cross-culturally during ICIs was considered far more powerful than learning about concepts of culture and values in a classroom. However, some participants wondered whether a more prolonged experience would have led to an even more profound effect. In summary, participants felt that their ICIs enhanced their capacity to critically reflect on culture, values, and practice and the interplay among them. This insight laid the foundation for developing communication skills and resourcefulness.

**Enhanced capacity to communicate effectively**

Participants reported that their ICI experience enhanced their verbal and nonverbal communication skills, increasing their ability to build rapport with patients. Because there was frequently a language barrier between them and their patients, participants described relying heavily on body language, facial expressions, and gestures to communicate during assessment and treatment. Participants also noted that speaking to patients through translators improved their ability to use short, direct questions. They also defined a link between communication and culture:

> It obviously burned . . . and the patient didn’t say anything. And later on, one of the physios said, “Oh, the patients won’t say when they’re in pain.” . . . I learned to ask patients, “Are you in pain? Does this hurt?” Or to watch their facial expressions if they’re not verbalizing it. (01)

Participants felt that the communication challenges they faced during their ICIs prompted them to cultivate effective communication strategies to help build trust and rapport with patients: “I would say body language and always maintaining eye contact [with the patient] even though you are working with the interpreter” (09).

In summary, participants perceived that the communication challenges they experienced during their ICI helped them to develop a diverse array of communication strategies, both verbal and nonverbal, as well as insights into how to better develop rapport with their patients.

**Enhanced capacity for resourcefulness and creativity**

According to participants, working with minimal physical and human resources nurtured their skills in efficient time and resource management and creative problem solving:

> Managing time became a huge issue . . . also resources, but resources in the way of both how the physios were using their time, and then resources in terms of gloves and masks because those were pretty few and far between. (05)

One participant described learning to triage people at busy outreach clinics; others recalled referring patients to other health care professionals throughout the triage...
process. In addition, many reported working with limited physical resources and felt that this helped foster creative problem solving by thinking outside the box:

They may be living on a farm and they have some sticks and trees so you may have to use that to help teach postural feedback ... So I think that placement made me develop creativity for how can we use what’s around to improve health outcomes. (03)

Several participants told us that because of the high demand for care and scarcity of time, they did not develop manual therapy skills during their ICIs. However, they emphasized that developing the other core capacities was more beneficial to their current practice in Canada than developing specific technical skills:

I think where some people may feel that they lose technical skills, they gain in lifelong, critical kind of global skills which I feel are more important in a practice setting. (03)

In summary, participants perceived that their experiences in resource-poor clinical settings allowed them to develop resourcefulness and creativity, particularly in terms of effective time and resource management and creative problem solving.

**How core capacities influenced Canadian practice: enhanced patient-centred care**

Participants felt that any or all of the core capacities developed on their ICI enhanced their ability to provide patient-centred care in their current practice, regardless of the Canadian setting or patient population, through enhanced understanding of patient values and social determinants of health (see Figure 2).

**Enhanced understanding of patient values**

All participants believed that their ICI experience made them more empathetic practitioners through helping them to better understand patients’ perspectives. Participants also noted that understanding patients’ values helped them to improve patient-centred care by collaborating with patients and families, respecting patients’ beliefs, and recognizing that patients’ goals may differ from their own:

Collaboration is really important because we don’t see the other side of these patients’ lives ... Over here we kind of feel entitled as health care providers, “Do this, do that, I’m your physio” ... but we have to understand that people have their own practices, and things like that that you have to respect. (03)

Participants reported incorporating strategies into their Canadian practice to better respect patients’ beliefs, such as asking about cultural values or religious holidays to guide their interaction. They also talked about improving their understanding of patients’ goals:

Understanding and learning about the patient has totally helped me in this setting ... More than just saying, “I’m going to do this because this is what is better for you,” saying, “What is it that you want to do or what works best for you?” This has stemmed from a more global perspective because everybody is different. (03)

**Enhanced understanding of social determinants of health**

Participants felt they were uniquely equipped to provide patient-centred care through an enhanced understanding of patients’ social determinants of health. This emerging theme centred on participants’ recognition of a wide spectrum of inequalities in health, from individual patient factors to broader socio-political contexts:

It [ICI] really has shaped me in terms of my interests in global issues and how to think more holistically or more broadly about disability rather than narrowing in on specific issues around the minute issues of a joint malfunction, although it’s extremely important. For me, my interests have been more on the global scale of how can we improve quality of life from a bigger and broader perspective, from a social determinants of health perspective. (08)

In particular, participants felt they gained insight into four social determinants of health: gender, access to health care, Aboriginal status, and income.

First, participants reflected that exposure to gender inequities during their ICI made them more aware of similar issues while practising in Canada:

Even in Canada I think the issue is more that there is still discrimination and sexism in the health care system ... and a lot of women I feel suffer silently, especially with pelvic pain, because it’s embarrassing. Their doctor maybe doesn’t really believe them or doesn’t see it. (06)

This participant later linked this awareness of gender inequities to his or her current role in advocating for PT services that target women’s health.

Second, many participants recognized their increased empathy for newcomers to Canada:

Where I work in Toronto there are some immigrants who come and have had very limited access to resources in the past. And I can think, “I’ve worked with very similar people in the past and can see where they are coming from.” So I would say it’s never all that far away in my mind. (09)

Participants’ enhanced capacity to reflect on culture, values, and practice helped them to recognize that all Canadians, not just specific subsets of the population, may face barriers to accessing care. For example, one participant described feeling motivated to help patients navigate the health care system to ensure patient-centred care:
You want to help them to understand the system … you’re their primary health care practitioner. You’re not just trying to fix them. You’re trying to help them understand how things work and how they could be better at managing their own health. (03)

Third, the ICI experience gave participants the opportunity to reflect on their own culture and increased their awareness of discrimination experienced by historically marginalized groups in Canada, such as Aboriginal peoples. This awareness brought to light how the power dynamics inherent in patient–clinician interactions can affect patient care. One participant shared an experience from his or her work in Northern Ontario that illustrates how being aware of the historic racism faced by Aboriginal peoples can shape patient care:

I was up in a community treating one man and he had had a heart attack and stroke and his wife was there and she was saying, “You people, you people, you did this to him.” So again it’s that expectation, and culturally, before you do anything, even assessing anything, it’s the expectation that I represent who was at fault in their opinion. So what can I do to help them if we’re the ones causing this problem? So, just being aware of how that impacts how you might be received or expectations of what you can offer. (09)

Finally, participants reported that their ICI experience working in resource-poor settings allowed them to better appreciate the influence of income and financial constraints that potentially face all their patients, not just those in resource-poor countries:

It [ICI] really translates into here, because you realize that your patients really don’t need to go to a gym, they can do stuff in the comfort of their home using what they have, as long as you have creativity … So I think that placement made me develop creativity for how can we use what’s around us to improve our health outcomes. (03)

In summary, by actively trying to understand patients’ values and by tailoring their PT practice accordingly, participants felt better able to provide patient-centred care in their Canadian practice. Efforts to understand the social determinants of health that influence patient care are not limited to specific populations or to patients living in resource-poor environments; these insights translate into enhanced patient-centred care for all Canadians.

DISCUSSION

Ours is the first study to investigate the impact of ICIs on practice in PT.

Advancing the field of international clinical education

In line with existing literature, participants in our study perceived that their ICI enhanced their cultural awareness and resource efficiency. In addition, however, all participants considered these and other skills gained during their ICIs to have enhanced their ability to provide patient-centred care within their Canadian practice. Patient-centred care involves providing care and making clinical decisions that are respectful of individual patients’ preferences, needs, and values. Although the impact of patient-centred care remains relatively unstudied in the PT literature, research with Canadian physicians suggests that patient-centred care results in improved health status and efficiency of care. More important, participants perceived that their enhanced ability to provide patient-centred care in Canada is not limited to resource-poor settings but, rather, is relevant to all patient populations and locations. This finding is a departure from existing research on ICIs, which tends to find it relevant only to resource-poor settings in North America.

Implications for physiotherapy students and programmes

Our findings can inform both PT students and academic programmes in making decisions regarding ICIs. One important consideration is the potential impact on the student, especially because ICIs are resource intensive. For PT students contemplating undertaking an ICI, our findings provide insight into the perceived impact of ICIs on Canadian practice. Furthermore, given that ICIs can pose ethical dilemmas and have harmful effects for both students and host sites, a more nuanced understanding of the impact of ICIs can help mitigate potentially negative effects for both parties. For PT programmes, our findings can be used to guide decisions about investment in ICIs. Because demand for ICIs is increasing, PT programmes must decide whether and how to support students in these endeavours. As have other authors, we recognize that PT programmes have a duty to provide pre-departure education and to inform students of the potential impact of an ICI. Our findings should be incorporated into pre-departure education to provide students with realistic expectations of the ICI, based on the perceptions of physiotherapists who have previously had this experience.

Considerations for the Essential Competency Profile for physiotherapists in Canada

The ECP explicitly recognizes the importance of effective communication skills (communicator role) and of creativity and resourcefulness (manager role). Yet although the role of scholarly practitioner emphasizes the importance of critical reflection on practice, the ECP is otherwise silent on the need for physiotherapists to include culture
and value in their reflections. Participants in our study perceived that developing the capacity to critically reflect on culture and values (their own and others’) translated to better patient-centred care for all Canadians. Thus, we suggest that this capacity be explicitly incorporated into future iterations of the ECP.

Similarly, although the ECP’s advocate role mentions that physiotherapists need to identify determinants of patient and population health, whether this refers to individual patient factors or whether it encompasses broader determinants of health is not clear. As defined by the World Health Organization, the social determinants of health are “circumstances shaped by the distribution of money, power and resources at global, national and local levels.” Because participants in our study reported that understanding these meta-level factors enhanced their ability to provide patient-centred care, we also suggest that future iterations of the ECP clarify the broad spectrum of determinants of health that practitioners must be able to identify and explicitly include social determinants of health.

Recommendations for future research

Whereas our study focused on students, future research should investigate the impact of ICIs on host sites, given the potential for negative impacts. There is also a need to examine the sustainability of ICIs from the perspective of host sites and academic PT programmes. In addition, future research should explore the impact of clinical internships in underserved, resource-poor settings in Canada. The definition of global health used in our study incorporates both international and domestic contexts; future research should investigate potentially synergistic lessons learned from both contexts that help shape students’ future PT practice. Finally, research should explore how PT curricula can help students critically reflect on the interplay among culture, values, and practice. Because not all students can complete an ICI and because of the links between reflexivity and better patient-centred care, alternative options to foster development of reflexivity should be explored.

Limitations

Our study has several limitations. First, participants may have struggled with recall, because they were reflecting on an experience that occurred between 2 and 15 years before the study. Furthermore, because many participants have had multiple clinical experiences since returning from their ICI, it may have been difficult for them to discern whether the skills they use in current practice resulted from their ICI alone or from their cumulative clinical experience. Finally, many participants’ ICIs (9 of 13) took place in Kenya, which may have limited the range of perspectives if students’ experiences in this country were similar.

CONCLUSION

Participating physiotherapists perceived their ICIs as facilitating their development of three key capacities: critical reflection on culture, values, and practice; resourcefulness and creativity; and effective communication. They felt that these capacities uniquely equipped them to provide patient-centred care in Canada through enhanced understandings of patients’ values and social determinants of health, regardless of setting or patient population.

Our findings can inform both PT students and academic programmes during their respective decision-making processes around ICI participation or investment. The findings may also help shape future iterations of the ECP. Finally, lessons learned inspire future research that targets the perspectives of host sites, investigates the impact of clinical internships in local settings, and explores ways to help students develop critical reflection skills surrounding the interplay among culture, values, and practice.

KEY MESSAGES

What is already known on this topic

Increasing numbers of physiotherapy students are seeking international clinical internships (ICIs) in low- and middle-income countries. Research has identified many benefits and challenges associated with ICIs, but little is known about their impact on physiotherapists’ future practice in Canada.

What this study adds

This study presents the perspectives of practising Canadian physiotherapists on the impact of their previous ICI on their current Canadian practice. Participants reported developing three key capacities: (1) critical reflection on culture, values, and practice; (2) creativity and resourcefulness; and (3) effective communication. More important, they perceived these capacities as enhancing their ability to provide patient-centred care for all patients in their Canadian practice, regardless of setting or patient population. These findings will help students make more informed decisions about participating in ICIs; academic physiotherapy programmes can also use the results to guide decisions on investing in global health learning opportunities.

REFERENCES

1. Frenk J, Chen L, Bhutta ZA, et al. [Health professionals for a new century: transforming education to strengthen health systems in an interdependent world]. Rev Peru Med Exp Salud Publica. 2011;28(2):337–41. http://dx.doi.org/10.1590/S1726-46342011000200023. Medline:21845316
2. Crawford E, Biggar JM, Leggett A, et al. Examining international clinical internships for Canadian physical therapy students from 1997 to 2007. Physiother Can. 2010;62(3):261–73. http://dx.doi.org/10.3138/physio.62.3.261. Medline:21629605
3. Huish R. The ethical conundrum of international health electives in medical education. Journal of Global Citizenship & Equity Educa-
tion. 2012;2(1):1–19.

4. Pinto AD, Upshur REG. Global health ethics for students. Dev World
Bioeth. 2009;9(1):1–10. http://dx.doi.org/10.1111/j.1471-
8847.2007.00209.x. Medline:19302567

5. Macfarlane SB, Jacobs M, Kaaya EE. In the name of global health:
trends in academic institutions. J Public Health Policy. 
2008;29(4):383–401. http://dx.doi.org/10.1057/jphp.2008.25. 
Medline:19079297

6. Kerry VB, Ndung’u T, Walensky RP, et al. Managing the demand for 
global health education. PLoS Med. 2011;8(11):e1001118. http://
dx.doi.org/10.1371/journal.pmed.1001118. Medline:22067076

7. Landry MD, Nixon S, Raman SR, et al. Global health experiences 
(GHEs) in physical therapist education: balancing moral impera-
tive with inherent moral hazard. J Phys Ther Educ. 2012;26(1):47–7.

8. Landry MD, Dyck T, Raman S. Poverty, disability and human 
development: a global challenge for physiotherapy in the 21st 
century. Physiotherapy, 2007;93(4):233–4. http://dx.doi.org/10.1016/ 
j.physio.2007.09.001.

9. Koplan JP, Bond TC, Merson MH, et al.; Consortium of Universities 
for Global Health Executive Board. Towards a common definition of 
global health. Lancet. 2009;373(9679):1995–3. http://dx.doi.org/
10.1016/S0140-6736(09)60332-9. Medline:19079297

10. National Physiotherapy Advisory Group. Essential competency pro-
file for physiotherapists in Canada, 2009 [Internet], The Group; 2009 
[cited 2013 Jul 12]. Available from: http://www.allianceopt.ca/pdfs/
alliance_resources_profile_2009_eng.pdf

11. Cassidy C, Meru R, Chan NMC, Engelhardt J, Fraser M, Nixon S. 
Thinking beyond our borders: Investigating ideal competencies for 
physiotherapists working in resource-poor countries. Toronto: 
University of Toronto, Physical Therapy; 2012.

12. Rubin K. Overseas internships jumpstart careers. International 
Health Program: what an international elective adds to all clinical 
education practices for Canadian rehabilitation students. Nurse Educ. 
2008;33(1):35–8. http://dx.doi.org/10.1097/
01.NNE.0000299493.00249.2d. Medline:18091470

13. Engstrom D, Jones LP. A broadened horizon: the value of interna-
tional social work internships. Soc Work Educ. 2007;26(2):136–50. 
http://dx.doi.org/10.1080/02615470601042631.

14. Strauss A, Corbin J. Open coding: basics of qualitative research. 2nd 
ed. Thousand Oaks (CA): Sage; 1998.

15. Flicker S, Nixon SA. The DEPICT model for participatory qualitative 
health promotion research analysis piloted in Canada, Zambia and 
South Africa. Health Promot Int. Epub 2014 Jan 12. http://
dx.doi.org/10.1093/heapro/dat093. Medline:24418997

16. Mikkonen J, Raphael D. Social determinants of health: the Canadian 
facts. Toronto: York University School of Health Policy and Manage-
ment; 2010.

17. Sawatsky AP, Rosenman DJ, Merry SP, et al. Eight years of the Mayo 
International Health Program: what an international elective adds to 
residency education. Mayo Clin Proc. 2010;85(8):734–41. http://
dx.doi.org/10.4065/mcp.2010.10.017.

18. Shaywitz DA, Ausiello DA. Global health: a chance for Western 
physicians to give—and receive. Am J Med. 2002;113(4):354–7. 
http://dx.doi.org/10.1016/S0002-9343(02)01307-4. 
Medline:12361834

19. Shah S, Wu T. The medical student global health experience: profes-
sionalism and ethical implications. J Med Ethics. 2008;34(5):375–8. 
http://dx.doi.org/10.1136/jme.2006.019265. Medline:18448720

20. Ramsey AH, Haq C, Gjerde CL, et al. Career influence of an interna-
tional health experience during medical school. Fam Med. 
2004;36(6):412–6. Medline:15181553

21. McKinley DW, Williams SR, Norcini JJ, et al. International exchange 
programs and US medical schools. Acad Med. 2008;83(10 
Suppl):S53–7. http://dx.doi.org/10.1097/ACM.0b013e318183e351. 
Medline:18820502

22. Izadnegahdar R, Correia S, Ohata B, et al. Global health in Canadian 
medical education: current practices and opportunities. Acad Med. 
2008;83(2):192–8. http://dx.doi.org/10.1097/ACM.0-
b013e31816695cd. Medline:18303368

23. Krajewski-Jaime E, Brown KS, Ziefert M, et al. Utilizing international 
clinical practice to build inter-cultural sensitivity in social work 
students. J Multicult Soc Work. 1996;4(2):15–29. http://dx.doi.org/
10.1300/J285v04n02_02.

24. Sloand E, Bower K, Groves S. Challenges and benefits of interna-
tional clinical placements in public health nursing. Nurse Educ. 
2008;33(1):35–8. http://dx.doi.org/10.1097/
01.NNE.0000299493.00249.2d. Medline:18091470

25. Institute of Medicine Committee on Quality of Health Care in 
America. Crossing the quality chasm: a new health system for the 
21st century. Washington (DC): National Academy Press; 2001.

26. Drain PK, Primack A, Hunt DD, et al. Global health in medical 
education: a call for more training and opportunities. Acad Med. 
2007;82(3):226–30. http://dx.doi.org/10.1016/j.amj. 
j surg.2011.10.009. Medline:22483130

27. Ryan ME, Twibell RS. Concerns, values, stress, coping, health and 
educational outcomes of college students who studied abroad. Int J 
Intercult Relat. 2000;24(4):409–35. http://dx.doi.org/10.1016/S0147-
1767(00)00014-6.

28. Ramsey AH, Haq C, Gjerde CL, et al. Career influence of an interna-
tional health experience during medical school. Fam Med. 
2004;36(6):412–6. Medline:15181553

29. Stewart M, Brown JB, Donner A, et al. The impact of patient-
centered care on outcomes. J Fam Pract. 2000;49(9):796–804. 
Medline:11032203

30. Drain PK, Primack A, Hunt DD, et al. Global health in medical 
education: a call for more training and opportunities. Acad Med. 
2007;82(3):226–30. http://dx.doi.org/10.1016/j.amj. 
j surg.2011.10.009. Medline:22483130

31. Ryan ME, Twibell RS. Concerns, values, stress, coping, health and 
educational outcomes of college students who studied abroad. Int J 
Intercult Relat. 2000;24(4):409–35. http://dx.doi.org/10.1016/S0147-
1767(00)00014-6.

32. Crump JA, Sugarman J. Ethical considerations for short-term experi-
ences by trainees in global health. JAMA. 2008;300(12):1456–8. 
http://dx.doi.org/10.1001/jama.300.12.1456. Medline:18812538

33. Aihuwalia P, Cameron D, Cockburn L, et al. Analyzing international 
clinical education: a grounded theory study. Br J Occup Ther. 
2012;75(1):29–37. http://dx.doi.org/10.4276/
030802210X12629548272709.

34. Slade D, Blazer G, Krosnick JA, et al. Factors associated with inter-
ational health experiences during medical school. Fam Med. 
2004;36(6):412–6. Medline:15181553

35. Weaver KS. Students find international internships with help from 
the ABA. Stud Lawyer. 2007;35:88.