Summer 8-2014

Interprofessional global health education in a cosmopolitan community of North America: the iCHEE experience.

Valerie S. Palmer
palmerv@ohsu.edu

Rajarshi Mazumder

Peter Spencer
Peter Spencer, spencer@ohsu.edu

Interprofessional Global Health Education in a Cosmopolitan Community of North America: The iCHEE Experience

Valerie S. Palmer, Rajarshi Mazumder, and Peter S. Spencer, PhD

Abstract

Problem
The rapidly diversifying population of North America has disparate health needs that are addressed by creative, community-based training of health professions students.

Approach
The authors report five years (2008–2012) of experience implementing a novel interprofessional Community Health and Education Exchange (iCHEE) elective course for dental, medical, nursing, nutrition, pharmacy, physician assistant, and public health students at Oregon Health & Science University (OHSU). This pioneering interprofessional course was created by the OHSU Global Health Center and is offered in fall, winter, and spring quarters. Students interact with individual clients drawn from community centers supporting refugees, recent immigrants, and other underserved people. In addition to health concerns, clients are encouraged to share backgrounds and experiences with student teams. Clients receive guidance on nutrition, exercise, pharmaceuticals, and accessible health services. Student teams perform a noninvasive health check on clients with the assistance of faculty mentors who, on finding a physical or mental health issue, refer the client from the educational setting to an appropriate health care facility.

Outcomes
In addition to supporting health promotion and early intervention for medically underserved people, students reported gaining valuable cross-cultural knowledge, understanding, and experience from clients. Students also appreciated the value of diverse skills and knowledge available in their multidisciplinary teams. Through the end of 2012, over 300 health professions students worked with approximately 1,200 clients to complete the iCHEE course.

Next Steps
The iCHEE model should prove helpful in preparing health professions students at other institutions to understand and serve diverse populations.

Problem

We describe a novel, community-based, interprofessional education (IPE) program that trains U.S. health professions students to address the health needs of underserved people, many of whom are foreign born, including naturalized citizens, lawful permanent immigrants, refugees and asylees, legal nonimmigrants, and persons residing in the country without authorization. The foreign-born population of the United States increased by 57.4% between 1990 and 2000 and 29.8% between 2000 and 2011; the corresponding percentages in Oregon were 108% and 30.3%, repectively.[1] The rapidly growing and diverse foreign-born U.S. population has disparate health needs and utilization patterns that create significant challenges for health systems. Two major sets of factors drive health disparities in low-income foreign-born populations: linguistic, cultural, social, and environmental differences between the United States and some source regions; and postarrival socioeconomic factors such as marginalization, poverty, legal status, and program access that can affect some migrant cohorts.

The interprofessional Community Health and Education Exchange (iCHEE) has the dual goal of addressing health care needs of Oregon's medically underserved population and training future health care providers in a global context. Experts and policy makers recognize the dire need for a 21st-century curriculum for medical education that includes IPE,[2] and the Affordable Care Act addresses IPE training as part of health care reform. Training in multidisciplinary, team-based care directly addresses the crisis arising from health care fragmentation in the United States and, as noted recently by the Institute of Medicine, worldwide.[3] Additionally, a study commissioned by the World Health Organization (WHO) identified global strategies for collaborative practice and decision making among a diverse group of health care professionals.[4] Case studies in 10 countries from six WHO regions demonstrated that collaborative practices yielded prompt, appropriate, and cost-effective treatment for patients, and health care workers opined that they provided better patient care working as a team.[5,6] Described here is Oregon Health & Science University's (OHSU's) Global Health Center's iCHEE course, a mature program that pioneered student IPE at OHSU.

Approach

We report five years (2008–2012) of experience with iCHEE. This elective is held biweekly on Saturdays over 10-week periods in the fall, winter, and spring quarters (Table 1). The program brings

Ms. Palmer is instructor of global health and neurology, Global Health Center, Oregon Health & Science University, Portland, Oregon.

Mr. Mazumder is a fourth-year MD–MPH student, School of Medicine, Oregon Health & Science University, Portland, Oregon.

Dr. Spencer is professor of neurology, School of Medicine, and senior scientist, Center for Research on Occupational and Environmental Toxicology, Oregon Health & Science University, Portland, Oregon.

Correspondence should be addressed to Dr. Spencer, Global Health Center, Oregon Health & Science University, 3181 SW Sam Jackson Park Rd., L356, Portland, OR 97239-3098; telephone: (503) 494-0387; fax: (503) 494-7519; e-mail: spencer@ohsu.edu.

Acad Med. 2014;89:1149–1152.
First published online June 10, 2014
doi: 10.1097/ACM.0000000000000363

Table 1
Sample Syllabus for iCHEE Course Work for Interprofessional Students, Global Health Center, Oregon Health & Science University[a]

Session	Specific objectives	Activities
1	Understand the sociocultural complexities and the context of underserved people, those who have been displaced involuntarily, and others who have migrated to the United States from low-income countries.	Orientation includes: • A visit to the Medical Teams International's Real Life exhibit[b] and sensitization of students to life as a refugee • A discussion of challenges faced by refugee, homeless, and underserved populations in the United States • Faculty primers of the common health problems of iCHEE clients (e.g., diabetes, dental and mental health problems) • A video illustrating health care interactions with culturally and linguistically diverse patients • Access to Culture Vision,[c] a Web-based global information center on diverse cultures and associated practices
2–5	Work in interprofessional teams; develop an understanding of and respect for individual clients from diverse cultures; learn to interact with clients from diverse cultural and linguistic backgrounds; execute physical exams with minimum equipment; consult with faculty mentors regarding client referral to a mobile or other primary care facility.	• Sessions seek a two-way exchange of information between the student team and the client under the supervision of a faculty member and with the assistance of a translator if required • Students perform a health screening exam with a focus on blood pressure; ear, eye, and oral cavity; chest auscultation; and body mass index • Clients receive guidance on nutrition, exercise, and medication • End-of-session group discussion to assess barriers to intercultural interaction between student and client and interprofessional interactions among student team members • End-of-elective individual student written reflection on the iCHEE experience

Abbreviation: iCHEE indicates interprofessional Community Health and Education Exchange.
[a]iCHEE is a pass/fail elective course aimed at dental, medical, nursing, nutrition, pharmacy, physician assistant, and public health students addressing the health care needs of underserved, immigrant, and refugee populations.
[b]See http://www.medicalteams.org/real_life_exhibit.aspx.
[c]See http://www.crculturevision.com/subscribers/welcome.aspx.

students, residents, and faculty mentors from OHSU's academic programs together with client communities comprising refugees, immigrants, and underserved populations. Clients engage with IPE student teams, variably drawn from dentistry, medicine, nursing, nutrition, pharmacy, physician assistant, and, occasionally, public health programs. The goal is a two-way exchange of information between the client and student team, such that the former benefits from health information and a noninvasive physical examination while the latter acquires cross-cultural knowledge, understanding, and interpretative skills. Students also learn to value the knowledge and skills of their peers and mentors from different health disciplines. On completion, dental, medical, and pharmacy students receive two credits, and nursing students receive credit on other courses.

The first session of iCHEE is devoted to student sensitization, orientation, and guidance. Students are sensitized to the realities of life as a refugee or immigrant from a low-income country by visiting a graphically realistic exhibit of life and death in low-income countries (Table 1). Students emerge from the exhibit with an understanding of the vast gap between their own lives and those of their prospective clients. The students discuss the exhibit and share highlights of their own experiences abroad, which together serve to bond the group, typically 20 to 30 students. This is followed by instruction on the organization and execution of iCHEE sessions plus short faculty presentations highlighting topics such as nutrition, oral health, and mental health; the use, storage, side effects, and disposal of medications; and information on population-specific cultures and practices. Students are informed that they may work in physically inconvenient environments, likely experience nonoptimal organization, and receive limited language translation support, all of which are considered *positive* attributes of iCHEE because they echo the unpredictability and discomfort of many health care settings in low-income countries that students commonly encounter when working abroad.

Students participate in four 5-hour-long community sessions on alternate weekends during the academic quarter. Community organizations typically serve the needs of specific populations with and without religious affiliations. Potential clients are alerted to the opportunity for a health check by the participating community organization, which is specifically requested *not* to advertise iCHEE as a clinic. The two-way educational purpose of iCHEE is explained to clients at intake, when they are strongly encouraged to share information on their background, culture, experiences, health, and nutrition practices prior to and after settling in the United States. Interprofessional student teams meet individually with clients under the supervision of faculty ideally drawn from each participating school. At a minimum, the team includes one student from each of medicine, nursing, dentistry, and pharmacy. Emphasis is placed on developing a rapport with the client to understand the history, socioeconomic status, culture, and experiences of the client before a specific health concern is addressed.

The health component of the student–client interaction takes place under the supervision of a faculty member and, ideally, with support from a resident or member from each participating school. The mentors generally stand back from the student–client interaction but may become directly involved in analyzing a health complaint, guiding an examination, or interpreting the results. The student teams are provided with interview tools to assess the client's overall mental and physical health. Body mass indices are calculated and general physical examinations are performed to check eyesight, hearing, oral health, blood pressure, and heart and lung function.

The clients typically volunteer their health concern, which provides a focus for the student team's examination. Advice is

given to clients with the aid of simple illustrations designed to promote hygiene, exercise, and proper nutrition. Client medications are examined in relation to the health concern. Guidance on the selection and availability of over-the-counter medications is offered, and information on health care facilities and access is explained. Specific findings of student teams are discussed with mentors who decide whether clients should be referred from the educational setting of iCHEE for clinical follow-up. Clients with vision or dental issues are treated in mobile clinics brought to the iCHEE program site, while clients with other physical or mental problems are referred to local safety net clinics for treatment. At the termination of each session, the students gather in a group to analyze the strengths, challenges, and weaknesses of their individual team's performance for the session. At course completion, students are required to write a two- to three-page reflection of their experience. We analyzed these reflections to identify major themes.

Table 2

Summary of iCHEE Students' End-of-Course Reflections, in Order of Response Prevalence, Global Health Center, Oregon Health & Science University, 2008–2012[a]

Descending order of response prevalence	Summary of comments
1	Learning to work in a multidisciplinary team, with positive commentary on the respective knowledge of the different disciplines and synergies that develop from working collaboratively
2	Increasing awareness of the wider world and the nationally and culturally diverse people who are often hidden from view because of the socioeconomic segregation that tends to develop within city settings
3	Understanding the contextual nature of illness, including the mental health and socioeconomic factors that contribute to lack of care
4	Gaining practical experience through interaction with members of the public and surmounting the challenges of effective communication
5	Learning from clients' experiences, including their socioeconomic status, diversity of medical beliefs, expectations, practices, and culture-specific traditional remedies

Abbreviation: iCHEE indicates interprofessional Community Health and Education Exchange.
[a]iCHEE is an elective course aimed at dental, medical, nursing, nutrition, pharmacy, physician assistant, and public health students addressing the health care needs of underserved, immigrant, and refugee populations.

Outcomes

From 2008 to 2012, iCHEE worked with approximately 1,200 clients from several underserved (refugee, immigrant, other) populations, including Bhutanese, Burmese, Cambodian, Chinese, Guatemalan, Indian, Mexican, Nepalese, Pakistani, Peruvian, Romanian, Russian, Rwandan, Slovakian, Somalian, Ugandan, Ukrainian, and Vietnamese. These diverse populations provided unparalleled learning opportunities for more than 300 students, including students of dentistry (58), medicine (68), nursing (85), pharmacy (74), and other disciplines (18); 7 residents; and several faculty. Major themes that emerged from an analysis of students' end-of-course written reflections (Table 2) were the value of working in IPE teams, developing skills in communication with diverse clients, and understanding the underpinnings and interrelationships of mental and physical illness.

The community partner is the key agent that makes it possible to bring clients and students together in a community setting. The partner provides the physical setting in which iCHEE is held but also, crucially, direct contact with community members they serve. While various organizations have their own mission and service objectives, iCHEE contractually partners with them to strengthen community health care linkages, improve health care accessibility for their underserved populations, and reduce emergency room visits.

There are, as might be expected, several significant challenges in working in the communities. One is the paradigm shift from the traditional clinic-based education in which the physician and patient have dominant and recessive roles, respectively, to a community-based setting that seeks to place student teams and clients on an equal footing. A second challenge is identifying free or affordable health care settings to which clients can be referred. The third is ensuring that referred clients, some of whom are itinerant, receive the recommended health care, a responsibility that falls on the shoulders of the community organization. To this end, the iCHEE director provides the organization with a written assessment of each client, together with recommended action items.

Next Steps

The iCHEE model is widely applicable because it offers several positive educational experiences for health care students during the early phases of their professional training. Foremost, it provides an opportunity for students to learn from people with diverse cultures, beliefs, practices, and experiences vastly different from their own. Students may encounter individuals or families that have experienced armed conflict, forced displacement, hunger, abuse, societal rejection, or prolonged misery in a camp for internally displaced persons prior to their arrival in the United States, where they confront the challenge of rapid adjustment, adaptation, and acculturation. The students may encounter clients with limited education who do not speak English, who live with social stigma, have sparse resources, no medical insurance, and are unable to afford a healthy diet.

Second, the iCHEE experience provides a reality check for students both in terms of their own privileged position within the global population and the extraordinary challenges of providing health guidance and accessing medical care in the American resource-constrained environment. By interacting with people from diverse nations, iCHEE supports the global health training sought by a high percentage of health professions students.

Third, in addition to its education goals, iCHEE provides a model for prevention and early detection of health issues. Providing guidance on nutrition, exercise, and medication contributes to health, as does information on available clinical care facilities. Some clients reap benefit simply from the student team encounters; some are identified for clinical care in mobile and fixed

clinics; and on rare occasions, a medical issue is uncovered that requires urgent attention. Even with implementation of the Affordable Care Act, provision of health care is unlikely to reach the population served by iCHEE.

Fourth, iCHEE provides an early opportunity in the career of health professions students to encounter illnesses associated with refugee and immigrant populations. These range from common, highly prevalent conditions (periodontitis, diabetes mellitus, hypertension) to conditions rarely seen (cysticercosis) or unknown (lathyrism) in the United States. The potential also exists to identify disorders carried by clients that could spread to the general population. Health care practice in the increasingly cosmopolitan and well-traveled population of the United States is strengthened by the early student experiences offered by iCHEE.

International population mobility and migration to North America have a significant demographic impact such that health providers throughout the United States can expect to address the health needs of an increasingly diverse population. Although there is an opportunity to help meet these challenges by replicating the iCHEE program in educational institutions nationwide, several barriers must be surmounted.

First, given its interprofessional structure, iCHEE relies on the participation and cooperation of medical, dental, pharmacy, nursing, and graduate schools. The iCHEE elective must be part of each school's curriculum, students must be encouraged to participate, and costs of the program must be shared equitably.

Next, iCHEE provides a comfortable and secure place for clients to interact with health care without time or financial constraints. This is especially important in serving undocumented immigrants and other marginalized communities, whose fear and distrust of authorities hinder access to basic health care. When iCHEE functions optimally, clients educate students as much as students assist clients. Unavoidable preconceived roles must be overcome—namely, clients perceiving themselves as patients and students anxious to help needy clients.

Finally, a shifting health care scene and broad financial retrenchment challenge the sustainability of partnerships formed between iCHEE and local and mobile clinics for client referral services. Restrictions imposed by service organizations (residence location, poverty level, drug dependency) may compromise health care access. Additionally, most clients lack insurance for medical, dental, or eye care, and few are enrolled in Medicaid or Medicare.

In conclusion, iCHEE has proved to be a valuable program for all stakeholders, including students, clients, underserved communities, and OHSU faculty. This pioneering IPE program is amenable to reproduction in academic health centers worldwide.

Acknowledgments: The authors thank the participating community programs and their clients in Portland, Oregon (Asian Health and Service Center, City Bible Church, Catholic Charities, Esperanza and Kateri Park Community Center, Immigrant and Refugee Community Organization (IRCO) and IRCO-Africa House, Lutheran Community Services, VOZ Workers' Rights Education Project) and in Tigard, Oregon (Medical Teams International); the volunteer iCHEE faculty mentors, educators, and staff of the OHSU Global Health Center, Legal Department, and Schools of Dentistry, Medicine, and Nursing and the Oregon State University program in pharmacy at OHSU; the respective past and present deans of the four participating schools; and the OHSU Casey Eye Institute. Particular thanks are given (alphabetically) to David Bearden, Kathleen Birchfield, Cate Bishop, Teral Gerlt, Matthew Ito, Kate Murphy, Michael Plunkett, Isabelle Soule, and Diane Stadler, among many others.

Funding/Support: Support was received from United Way of Columbia-Willamette, the Spirit Mountain Community Fund, Third World Medical Research Foundation, and National Institutes of Health grant 5R25TW008097.

Other disclosures: None reported.

Ethical approval: Reported as not applicable.

References

1 Migration Policy Institute. State Immigration Data Profiles. 2011 American Community Survey and Census Data on the Foreign Born by State. MPI Data Hub. http://www.migrationinformation.org/DataHub/acscensus.cfm. Accessed March 28, 2014.
2 Greiner AC, Knebel E; Institute of Medicine. Health Professions Education: A Bridge to Quality. Washington, DC: National Academies Press; 2003.
3 Cuff P, Meleis A, Cohen J. Institute of Medicine's global forum on innovation in health professional education. Neurology. 2014;82:713–715.
4 Gilbert JH. The global emergence of IPE and collaborative care. J Interprof Care. 2010;24:473–474.
5 Yan J, Gilbert JH, Hoffman SJ. World Health Organization study group on interprofessional education and collaborative practice. J Interprof Care. 2007;21:588–589.
6 Mickan S, Hoffman SJ, Nasmith L; World Health Organizations Study Group on Interprofessional Education and Collaborative Practice. Collaborative practice in a global health context: Common themes from developed and developing countries. J Interprof Care. 2010;24:492–502.