

Proof of Concept for a Novel Curriculum: Learning a Second Language during Anesthesiology Residency

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Abstract

This article describes a novel curriculum for anesthesiology residents matriculating through Brigham and Women's Department of Anesthesiology. It is offered electively and provides physician residents with time to acquire language skills through a medically-focused immersion program abroad. It is designed for them to learn or improve a second language and then to speak it while practicing perioperative medicine. Ultimately, the elective curriculum will equip future anesthesiologists with the communication tools to deliver professional and compassionate patient care both within the United States and internationally.

Manuscript

Introduction

Practicing international medicine necessitates doctors to communicate in multiple languages. Frequently, doctors pursue work, and patients seek therapies in countries that are foreign to them. Nonprofit organizations mobilize doctors to work in low resource settings around the world. Patients who live in developing countries and who have major healthcare needs may travel across borders for specialist treatment. Conferences and symposiums are often advertised across an entire continent. In an era of global medicine, the need for doctors to speak more than one language is becoming more important because even the best doctors are rendered ineffective without the ability to communicate.

In the field of perioperative medicine, there is a small body of literature describing the need for physicians to overcome language barriers in order to promote healthcare literacy for their patients. In a survey of critical care doctors and nurses, language barriers increase the perceived stress of caring for a patient.¹ A language barrier can prevent patients from fully comprehending informed consent and the risks and benefits of surgery, anesthesia and perioperative medicine.²⁻³ It can be an impediment to making complex care decisions.⁴ It can stall the formation of a clear treatment plan when doctors need to negotiate differences of opinion among family members of

their patient.⁵ Further, from a patient's point of view, language barriers can understandably create a frustrating and isolating experience.

Many resources exist to assist physician-patient communication when the two parties speak different languages. Multiple advocacy groups promote the use of medical interpretation, such as the National Council on Interpreting in Health Care. Medical interpreters facilitate live conversations.⁶ They are able to read body language, transmit the tone of a statement and easily clarify the confusion in meaning of a question or answer. In some instances, an interpreter may even have a longitudinal relationship with a patient, making the experience more personal. Unfortunately, there are shortcomings to the availability of live interpretation. Even large institutions have a limited number of interpreters, which makes their presence in emergencies and at night difficult, if not impossible. Telephone interpreter lines, although often cumbersome and impersonal, offer the advantage of readily having interpreters who speak rare languages and dialects. Live and remote interpretation is generally available in well-funded hospitals, but they may be absent or laborious to coordinate in smaller centers or low resource settings. This begs the question: should physician training include a curriculum or course to learn a second language?

Brigham and Women's Hospital (BWH) Department of Anesthesia, Perioperative and Pain Medicine has a diverse group of residents, fellows and staff. In a survey of the department physicians (142 responses out of 272 total physicians), 29% speak only English, 44% speak English and one other language, 16% speak English and two other languages and 11% speak English and three or more other languages. Collectively in the department, physicians speak thirty two languages, with Spanish being the most common. Interestingly, in a question asking physicians to rate their own ability, 25% of physicians said they could speak a few words or phrases of a second language, 24% said they were proficient with a second language, 16% said they were fluent in a second language, and 6% said they were fluent in two or more languages. Almost 90% of physicians who do not already know a second language have the desire to learn one. The vast majority of the department said that given the opportunity, they would like to improve their language skills to use in a medical setting, and they would be willing to spend 1 to 3 hours per week doing so. Further, almost 90% of physicians believe that speaking a second language would improve the quality of their patient care. So, there is a mismatch between the physicians' perceived ability to speak a foreign language, and their overwhelming desire to learn one, willingness to invest effort in learning one and belief that knowing one would improve the caliber of their clinical care.

The BWH department has a robust international medicine program. It has many long standing relationships with doctors and hospitals abroad. Residents regularly visit countries including Rwanda, Kenya, Dominican Republic, Vietnam, Thailand, Abu Dhabi, Mexico, Peru and India. There, they pursue endeavors such as clinical work, teaching, mentoring, hospital development and operating room protocol development. Given the existing international commitments within the department and the physician demand to acquire language skills, we have created a language curriculum for residents during post graduate year four of training. It is a month-long, international elective during which residents pursue language immersion and gain the skills to speak about perioperative medicine in another language. This article will describe the timeline and content of this novel curriculum.

Curriculum

Purpose

The goal of this international, one-month elective is to provide resident physicians with time to develop foreign language skills in an intensive immersion experience. Being able to speak more than one language often allows physicians to work efficiently and accurately and to provide culturally compassionate patient care. Further, linguistic versatility may be useful or absolutely necessary in order to work in a clinical setting abroad or in a diverse area of the United States. To that end, enabling residents to speak multiple languages during their training not only equips them with a marketable skill, but also a tool with which to pursue their career opportunities.

Resident Selection and Preparation

There are no prerequisite requirements for the elective. It is available to all post graduate year four (PGY 4) residents with any level of preexisting knowledge of a second language, from only articulating only a few words to speaking fluently. A resident interested in pursuing the elective is required to complete a brief application describing their motivation to acquire or improve their language skills. The resident must select a language and seek out an attending mentor for their elective who is fluent in the chosen language. At BWH department of anesthesiology, the elective directors are both bilingual in English and Spanish, making them the designated mentors for residents studying Spanish. Spanish will likely be the most popular language for this elective given that it is the second most common language spoken in the United States. However, depending on the background and interest of the resident, we anticipate that Arabic, Chinese, Hindi and French may be pursued as well. If there are no mentors who speak the resident's chosen language at BWH, then they are encouraged to contact staff at other institutions in the United States or abroad. After identifying a mentor, the resident also needs to select a country and school where they plan to do their language immersion. For example, the first resident completed the pilot elective in Spanish in Oaxaca, Mexico at the Instituto Cultural Oaxaca with a bilingual staff anesthesiologist at BWH as a mentor.

Prior to embarking on their elective, residents are encouraged to visit the BWH travel clinic, read government travel advisories, register with the smart traveler enrollment program, and provide our department with a copy of a current passport and flight information.

Method of Evaluation

Residents are evaluated on their ability to comprehend and express themselves in their chosen second language. They are evaluated at the beginning and end of the elective using a validated language proficiency exam given by a trained professional at the Language Line. The exam is administered in 30-40 minutes over a land line telephone. It stratifies the resident into a proficiency level depending on their listening and speaking, use of idiomatic expressions, level of comprehension, knowledge of vocabulary, grammatical correctness, accuracy, pronunciation, enunciation, intonation, use of courteous language, and level of expression. The proficiency levels are called novice, low intermediate, high intermediate, advanced and educated

professional. The resident who participated in the pilot elective advanced from a novice level to a low intermediate level.

The cost to administer the test is \$145, which is reimbursed to the resident from their educational fund. The resident receives a passing grade during their elective if they are able to improve by one level in the Language Line exam. If they do not improve by this metric, then the resident may also receive a passing grade by being observed doing a history, physical and consent form by their elective mentor. Remediation to learn language content will be at the discretion of the elective directors.

Elective Content

The core of this elective is language immersion. The recommendations for coursework are twenty hours per week of grammar classes, five hours per week of conversation and ten hours per week of dedicated to medical language. Further, the residents are encouraged to live with a host family, organized through the school, in an effort to maximize interactions in the local dialect while they are outside of school. A homestay also ensures the resident's proximity to the school and may enhance safety while abroad. The duration of the immersion may be up to one month. If the resident chooses to spend less time doing the immersion, they are permitted to use the remaining days of their month-long elective to work with the medical interpreting service at Brigham and Women's Hospital, participate in language webinars or take language classes at the hospital. Residents are encouraged to participate in an international clinical endeavor immediately following or soon after the immersion in order to maximize the use of their new language skills.

School Selection

There is no internationally recognized rating system for adult language schools, so BWH Department of Anesthesiology provides recommendations for selecting an institution. First, we suggest schools with classes taught exclusively in the foreign language by native speakers with university qualifications and prior teaching experience. Second, we endorse schools that have small class size and that use the Common European Framework of Reference for Languages (CEFR) and the Communicative Model of teaching, which emphasize interaction as the mode of teaching and learning. Third, the school must offer the option for formal medical language, either as a group or as a private class. Fourth, we recommend carefully reading the school's website, Yelp and Trip Advisor to evaluate prior students' testimonials.

Until a large number of residents have completed this elective, most residents will choose a school based on an internet search or word-of-mouth. The anesthesiology residency will eventually build a repository of international language schools from which subsequent residents can choose. In time, professional organizations such as the American Society of Anesthesiologists, the Society for Education in Anesthesia or Health Volunteers Overseas might lend resources or a forum for making academic connections for residents.

Tuition

The cost of attending a language school in another country for two to four weeks is expected to cost between \$500 and \$1000. Tuition, as well as the flight and pre- and post-exam may be reimbursed to the resident through their educational fund. BWH is also working to establish an alumni fund from which grants could be awarded to residents to offset the cost of this elective.

Proof of Completion

In order to receive credit, the participating resident must provide a signed certificate or letter detailing their participation in language coursework – number of hours and the type of courses such as grammar, conversation, medical, etc. The resident is also required to provide three photographs of them engaged in classroom or language-related activities and to write one blog entry about an experience that they had while abroad.

Reflection

After the elective is completed, a participating resident is asked to write a 250 word reflection about their experience. The resident who participated in the pilot elective reflected: “I use my new Spanish language skills every day on the Labor and Delivery floor. In fact, my call team looks to me to do the history, physical and consent when the patient needs to speak in Spanish. In the main OR, I have also been able to apply it. I am able to truly connect with my Spanish-speaking patients, being able to describe an anesthetic from start to finish. Even though I have lot of learning and practice to do before I’m fluent, what I am able to say goes a long way in terms of engendering a therapeutic alliance and communicating clearly with my patients.”

Continuing Education

Residents are encouraged to use audio and visual resources to continue the process of learning their chosen foreign language. There are multiple websites that offer free daily exercises to practice and improve foreign language skills. The BWH Department of Anesthesiology has a growing list of such websites for the Spanish Language. Computerized language tools (i.e. DuoLingo or Rosetta Stone), radio broadcasts and podcasts, and review books and workbooks are also excellent educational resources. Further, BWH Department of Anesthesiology organizes informal gatherings for physicians who want to converse in Spanish. Ultimately, if there are residents who want to master other languages, we would also create opportunities for them to have conversation time.

ACGME Core Competencies

This elective, which develops foreign language proficiency in residents, promotes the fulfillment of all six Accreditation Council for Graduate Medical Education (ACGME) core competencies. Speaking a patient’s native language during clinical care promotes the patient’s healthcare literacy and effectively conveys the nuances of perioperative medicine to them, thereby enhancing the patient’s medical knowledge. It also promotes professionalism through their respect for patient diversity. By removing the language barrier when explaining a care plan to a patient, a resident can improve the quality of patient care. They also directly improve interpersonal communication with patients by creating an instant cultural connection that is

forged through compassionate and clear language. This elective promotes practice-based learning when the resident works to continue improving upon their language skills after they return from the immersion experience and show a trajectory of working towards fluency. Finally, the elective encourages a streamlined systems-based practice by minimizing translator, family member and staff handoffs for communication.

Conclusion

In summary, this is a novel curriculum for anesthesiology residents matriculating through Brigham and Women's Department of Anesthesiology to learn a second language and to speak it while delivering perioperative medicine. The elective will give physician residents the time to learn another language in an immersion program abroad, which this paper has described. Ultimately, the elective will equip them with the communication tools to deliver professional and compassionate patient care both in the United States and international settings.

References

1. Bernard A, Whitaker M, Ray M, Rockich A, Barton-Baxter M, Barnes SL, Boulangier B, Tsuei B, Kearney P. Impact of language barrier on acute care medical professionals is dependent upon role. J Prof Nurs. 2006 Nov-Dec;22(6):355-8.
2. Maeno M, Sakuyama M, Motoyama S, Matsuo H. Ethnic disparities in perioperative management among foreigners residing in Japan. Clin Exp Obstet Gynecol. 2012;39(4):442-7.
3. Clark S, Mangram A, Ernest D, Lebron R, Peralta L. The informed consent: a study of the efficacy of informed consents and the associated role of language barriers. J Surg Educ. 2011 Mar-Apr;68(2):143-7.
4. Alnaes AH. Lost in translation: cultural obstructions impede living kidney donation among minority ethnic patients. Camb Q Healthc Ethics. 2012 Oct;21(4):505-16.
5. Waisel DB, Lamiani G, Sandrock NJ, Pascucci R, Truog RD, Meyer EC. Anesthesiology trainees face ethical, practical, and relational challenges in obtaining informed consent. Anesthesiology. 2009 Mar;110(3):480-6.
6. Karliner L, Jacobs E, Chen A, Mutha S. Do Professional Interpreters Improve Clinical Care for Patients with Limited English Proficiency? A Systematic Review of the Literature. Health Serv Res. 2007 Apr; 42(2): 727–754.