Residency Training: The need for an integrated diversity curriculum for neurology residency

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ABSTRACT

Background: Providing culturally responsive care to an increasingly multicultural population is essential and requires formal cultural humility training for residents. We sought to understand the current prevalence and need for this type of training within neurology programs and to pilot an integrated curriculum locally.

Needs assessment: We surveyed via email all program directors of academic neurology programs nationally regarding the prevalence of and need for formal cultural responsiveness training. Forty-seven program directors (36%) responded to the survey. The majority of respondents did not have a formalized diversity curriculum in their program (65%), but most (85%) believed that training in cultural responsiveness was important.

Program description: We developed locally an integrated diversity curriculum as a proof of concept. The curriculum covered topics of diversity in language, religion, sexual orientation, gender identity/expression, and socioeconomic status designed to focus on the needs of the local community. Program evaluation included a pre and post survey of the learner attitudes toward cultural diversity.

Future directions: There is an unmet need for cultural responsiveness training within neurology residencies, and integrating this curriculum is both feasible and efficacious. When adapted to address cultural issues of the local community, this curriculum can be generalizable to both academic and community organizations. *Neurology*® 2017;89:e284–e287

GLOSSARY

LGBT = lesbian, gay, bisexual, or transgender; **UCSF** = University of California, San Francisco.

The landscape of medical practice is changing, including the diversity of the communities in which we practice. Juxtaposed to these cultural changes are persistent disparities in neurologic disease outcomes, including stroke, movement disorders, and headache.^{1–3}

While the etiology of disparities is multifactorial, some have suggested that provider behavior is a significant contributing factor,^{4,5} highlighting the importance of training in providing culturally responsive care. Although some medical schools have integrated formal cultural responsiveness training, this is by no means standard.⁶ Trainees arrive to residency with a wide variety of experience in navigating how culture influences a patient's relationship with the health care setting. Within neurology, this inexperience can lead to situations that threaten patient–physician rapport and have the potential to magnify existing disparities in access to equitable care.

Diversity curriculum interventions have been implemented in some specialties^{7,8}; however, there has

yet to be a formal evaluation of the state of cultural responsiveness training in neurology. We therefore performed a needs assessment of residency programs nationally, and then sought to address this curricular gap locally by creating a program both as a proof-of-concept exercise and to serve as a blueprint that could be replicated nationally.

For the purposes of this article and the curriculum, diversity was defined broadly to include sex, race/ethnicity, religion, sexual orientation, gender identity/expression, socioeconomic status, and ability. In addition, cultural responsiveness, cultural competence, and cultural humility were used synonymously, although they each have distinct formal meanings.

All aspects of this study were approved by the institutional review board of the University of California, San Francisco (UCSF).

NEEDS ASSESSMENT A 27-question anonymous questionnaire was emailed to the program directors of

Supplemental data
at Neurology.org

From the University of California San Francisco.

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all accredited US neurology training programs (see supplemental material e-1 at Neurology.org) obtained through the Accreditation Council for Graduate Medical Education for 2015–2016. A portion of the questionnaire was adapted from the UMDNJ-Robert Wood Johnson Clinical Cultural Competency Questionnaire with permission.⁹

The survey queried if a formalized curriculum for cultural responsiveness was in place or in development, how important this training is in the estimation of the program directors, and explored barriers to implementation.

A total of 47 program directors (36%) responded to the survey, with an average program size of 11–20 residents across the PGY2-PGY4 years. The highest proportion of respondents were located in the Southeast (n = 9; 56% of programs in that geographic area), followed by the West (n = 9; 43%), Midwest (n = 11; 42%), Northeast (n = 15; 34%), and South (n = 3; 13%).

The majority of program directors believed that training in cultural responsiveness was important (n = 30; 85%), but most did not have a formalized diversity curriculum in their program (n = 24; 65%), although some programs (n = 7; 19%) had curricula in development. Time, lack of expertise, and lack of educational materials were the most commonly cited barriers to formalized training.

PROGRAM OBJECTIVES The objective of the local curriculum was twofold: to bring awareness to trainees about topics that affect the local community and influence their relationship with the health care system and to assess the efficacy and feasibility of integrating this type of curriculum within a neurology residency. With the first goal in mind, the curriculum was tailored to address cultural issues that arise in caring for the community in San Francisco. For example, since the majority of patients cared for within our county hospital speak a primary language other than English, we addressed language as an instrument of culture and focused on medical interpretation skills. There is also a large San Francisco community who identify as lesbian, gay, bisexual, or transgender (LGBT), so we ensured that trainees were comfortable with terminology and specific health concerns of this community.

A before and after survey of the learners was administered in which they were asked to assess their skill and comfort in navigating clinical scenarios using a 5-point Likert scale (see supplemental material e-2). Residents were also asked about the importance of health professionals receiving formal training in cultural humility. Prior exposure to formal multicultural training prior to residency was assessed. The same survey was distributed at the end of the curriculum

to assess for any change and to ask for feedback on the curriculum and recommendations for future topics. Results were analyzed using the rank sum test.

PROGRAM DESCRIPTION The curriculum was given to UCSF neurology residents and comprised six 1-hour lectures scheduled during weekly resident didactic sessions.

The series was broken down into themes. The first lecture served to provide context for the curriculum and focused on the presence of unconscious bias in medical decision-making and in health care interactions. Prior to the lecture, the residents were asked to complete 2 of the Harvard Implicit Association Tests to engage in processing their own unconscious biases.¹⁰

The next series of lectures focused on diversity in ethnicity, language, and religion. A panel of religious leaders from the local community discussed how religious beliefs interplay with medical care, particularly in regards to end-of-life discussions. In another session, an interpreter addressed difficult discussions with patients and families, and how skill in interpreter use can bridge cultural divides.

The next lectures focused on LGBT health. The first defined sexual orientation and gender identity terms and discussed the current knowledge of disparities that influence neurologic disease in this population. The second focused specifically on transgender health and identity, particularly in relation to gender-affirming hormones and risk for neurologic disorders.

The series culminated in a Grand Rounds lecture, attended by faculty, staff, and trainees, and part of an annual diversity series, in which an expert in socioeconomic determinants of health spoke on the role of stress and early childhood experiences in perpetuating socioeconomic disparities in health.

PROGRAM EVALUATION AND FEEDBACK A total of 24 residents (53%) responded to the pre-curriculum survey. The majority had undergone some previous formal training in cultural responsiveness: 17% reported no formal training and 54% some training in college, while 54% reported monthly or more frequent training in medical school. Prior to the start of the curriculum, most residents believed that it was important for health professionals to receive formal training in cultural responsiveness (mean 4.42 out of 5.0, where 5.0 was “extremely important”).

Twenty residents (44%) responded to the postcurriculum survey. Of these, the majority attended at least one of the lectures in the diversity curriculum series. Residents reported significantly improved understanding of the role of implicit bias in medical

decision-making (3.08 vs 3.68; $p = 0.01$), significantly improved appreciation of transgender health issues (2.54 vs 3.4; $p = 0.003$), and significantly more skill in both understanding how an individual's disability affects his or her health care (2.97 vs 3.63; $p = 0.009$) and in assessing a patient's medical literacy (3.08 vs 3.6; $p = 0.044$). In addition, residents felt significantly more comfortable apologizing for cross-cultural errors (3.375 vs 3.8; $p = 0.048$), significantly more comfortable asking a patient's preferred pronoun for gender identification (2.95 vs 3.6; $p = 0.017$), and significantly more comfortable counseling a patient with limited English proficiency (3.54 vs 4.1; $p = 0.016$). After completion of the curriculum, residents continued to feel strongly that formal

training in cultural responsiveness was important (mean 4.32; $p = 0.62$).

Comments suggested that the curriculum was interesting, relevant, and beneficial. Comments included that they "don't get enough of this in the (hospital)" and that "it is a gift to have this training early on" in their careers.

LESSONS LEARNED In developing the local diversity curriculum, we stressed the importance of connecting the material directly to clinical care by using examples from cases that trainees have experienced or by providing concrete tools that they can use going forward. Tailoring the curriculum to the demographics and needs of the local community is essential.

Another important lesson was tailoring the evaluation to the objectives of the curriculum. For example, although we asked about self-reported confidence, this does not necessarily indicate improved cultural humility; perhaps evaluations should focus more on an objective measure of communication (such as a standardized patient) or patient satisfaction.

FUTURE DIRECTIONS Given that lack of materials and lack of expertise were 2 of the top barriers cited to implementing a diversity curriculum, we are now developing a standardized curriculum modeled after ours, available for dissemination and modification nationally. The local curriculum has also continued. In upcoming years, we hope to more fully integrate culturally responsive topics within the traditional didactics (e.g., when there is a lecture on stroke, incorporating information about LGBT health and risk of stroke). We also hope to integrate patient satisfaction and outcomes into the evaluation process to determine the direct effect of the curriculum.

There are many possibilities for future directions (table), which can be tailored to the needs of a particular local patient population. As this conversation develops, the focus can shift from an ideology of cultural competence, which suggests a set curriculum that can be mastered, to cultural humility, which encourages self-reflection and lifelong learning. Through this growth, we will be more equipped to address the pervasive disparities that affect the lives of our patients and move toward providing more equitable care for all.

AUTHOR CONTRIBUTIONS

Nicole Rosendale: study conceptualization, drafting and revision of the manuscript. S. Andrew Josephson: study conceptualization, revision of manuscript, supervision of the study.

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Table	Possible future directions for neurology curriculum on cultural awareness
Theme	Possible didactic topics/formats
Context for the curriculum	Discussion of unconscious bias
	Discussion of socioeconomic determinants of health
	Microaggressions and imposter syndrome in medicine
	Discussion of identity and privilege
	Discussion of identity and intersectionality
Race/ethnicity	Racial/ethnic disparities in stroke
	Racial/ethnic disparities in epilepsy
	Racial/ethnic disparities in quality measures/outcomes
Religion	Patient panel on experiences of discrimination in health care
	Panel of community leaders discussing interplay of faith and medicine
Socioeconomic status	Patient panel discussing importance of religion in medical decision making
	Discussion of socioeconomic disparities in neurologic disease outcomes
Ability	Discussion of available services for marginally housed/homeless individuals in the local community
	Discussion of available disability services in the area and how to connect patients to those services
	Presentation by disability rights group on local issues
	Panel of patients discussing how their disability affects their daily life and interaction with the health care system
Sexual orientation	Patient panel discussing instances of discrimination in the health care system
	Introduction of terminology and disparities in lesbian, gay, bisexual, or transgender health
Gender identity	Defining sexual orientation vs gender identity/expression
	Discussion of navigating the world as a gender nonconforming individual
	Discussion of available gender-affirming therapies and neurologic implications
Language	Discussion of when and how to use medical interpreters
	Standardized patient as a way of practicing skills of using a medical interpreter
Integrative medicine	Discussion of use of acupuncture in treatment of pain
	Discussion of complementary methods of addressing neurologic disease (i.e., tai chi for Parkinson disease)

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