

Brief Communication

Effectiveness of Cross-cultural Education for Medical Residents Caring for Burmese Refugees

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ABSTRACT

Background: Limited resources are available to educate health professionals on cultural considerations and specific healthcare needs of Burmese refugees. The objective of this study was to determine the effectiveness of a module focused on cross-cultural considerations when caring for Burmese refugees. **Methods:** A brief educational module using anonymously tracked pre- and post-intervention, self-administered surveys was developed and studied. The surveys measured pediatric and family medicine residents' knowledge, attitudes, and comfort in caring for Burmese refugees. Paired *t*-tests for continuous variables and Fisher's exact tests for categorical variables were used to test pre- and post-intervention differences. We included open-ended questions for residents to describe their experiences with the Burmese population. **Results:** The survey was available to 173 residents. Forty-four pre- and post-intervention surveys were completed (response rate of 25%). Resident comfort in caring for Burmese increased significantly after the module ($P = 0.04$). Resident knowledge of population-specific cultural information increased regarding ethnic groups ($P = 0.004$), appropriate laboratory use ($P = 0.04$), and history gathering ($P = 0.001$). Areas of improved resident attitudes included comprehension of information from families ($P = 0.03$) and length of time required with interpreter ($P = 0.01$). Thematic evaluation of qualitative data highlighted four themes: access to interpreter and resources, verbal communication, nonverbal communication, and relationship building with cultural considerations. **Discussion:** A brief intervention for residents has the potential to improve knowledge, attitudes, and comfort in caring for Burmese patients. Interventions focused on cultural considerations in medical care may improve cultural competency when caring for vulnerable patient populations.

Keywords: Burmese, medical education, pediatrics, refugees, survey methods, vulnerable populations

Background

Health-care providers need appropriate training to care for vulnerable populations, such as refugees.^[1] Cities, where refugees are often resettled, are also home to large medical training programs. This allows opportunities for medical trainees to develop a foundation for cultural competency which they may adapt and develop throughout their careers.

Indianapolis, a city of 1.9 million people, is the home to a sizeable Burmese refugee population as well as a large medical training center.^[2] Nearly 14,000 Burmese refugees live in Indianapolis.^[3] This population uniquely consists of 85% Chin ethnicity, whereas nationally over half of all Burmese refugees are Karen with fewer than 5% identifying as Chin.^[4] Indianapolis is also home to Indiana University School of Medicine's (IUSM) medical campus, which trains over 2500 medical students, residents, and fellows annually.^[5] Although the Burmese are <1% of Indianapolis' population, medical trainees frequently care for them in two outpatient clinics as well as at two local hospitals serving primarily Medicaid patients.

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Despite the frequent use of educational modules on topics such as ambulatory care and procedural skills, little evidence exists regarding educational resources for residents on refugee populations for whom they may provide care.^[6,7] The objective of this study was to measure the effectiveness (knowledge, attitudes, and comfort) of an online module focused on cross-cultural considerations when caring for Burmese refugees.

Methods

This study utilized pre- and post-intervention surveys of a brief module for medical trainees in Indianapolis. The study participants were pediatric and family medicine residents from IUSM and took place between January and September 2014.

The module was informed by a review of literature, refugee organization websites, and focus groups/interviews of local Burmese refugees. Module topics included: overview of Burma's history and culture, local/national refugee resettlement, health considerations for adults and children, and cultural competence in health systems. Although some information pertained specifically to Burmese Chin, most pertained to all Burmese refugees. The 30-minute module was reviewed and approved by the director of a local Burmese organization and a pediatrician whose practice primarily consists of Burmese refugees. The pediatric residents were offered the module either as a live or online presentation. The family medicine residents were offered only a live presentation.

Surveys were developed to measure the aims of this study, including physician knowledge (ethnic groups, number dialects spoken by each group, common medical conditions in this particular population), comfort (resident comfort in addressing medical issues faced when caring for the Burmese), and attitudes (challenges of building a trusting relationship, challenges with interpreters) in caring for Burmese refugees. Preintervention and immediate postintervention surveys were administered the day of module presentation, and an additional postintervention survey was given 3 months later. The surveys were anonymously tracked. The surveys contained questions which gathered quantitative and qualitative data.

Participation was voluntary. Those individuals who completed the study received a \$5 gift card for their time. Pediatric residents also received credit for an education module for completing this study as part of their educational curriculum. The institutional review board at Indiana University approved this study.

The analysis utilized a mixed methods approach. Descriptive statistics were performed for continuous and categorical

variables. Paired *t*-tests and Fisher's exact test were used to test pre- and post-differences. Qualitative data consisted of open-ended questions that asked residents to describe their experiences with the Burmese population. These data were reviewed by all three authors (MM, KN, and NS), and thematic analysis was performed utilizing grounded theory.^[8]

Results

Of the 153 pediatric residents, 35 individuals completed both the pre- and post-module surveys (response rate: 23%, 35/153). Of the 20 family medicine residents, nine completed both the pre- and post-module surveys (response rate: 45%, 9/20). Forty-four pre- and post-intervention surveys were completed in total (25% overall response rate, 44/173). Seventy-nine percent of the residents saw Burmese patients several times a year or monthly, whereas over half had never seen a Burmese patient before residency [Table 1]. There was no statistical difference between those with both an immediate and 3-month follow-up postintervention survey. Therefore, if no 3-month postintervention survey was available, we used the immediate postintervention survey.

In nearly, all questions targeting knowledge, comfort, and attitudes (94.7%, 18/19), some degree of improvement was found after viewing the module. In four topic areas, there

Table 1: Participant demographics by residency program, year in training, and frequency of Burmese patients seen before and during residency

Demographics	n (%)
Residency program	
Categorical pediatrics	22 (50.0)
Medicine/pediatrics	6 (13.6)
Emergency/pediatrics	1 (2.3)
Triple board residency	3 (6.8)
Pediatrics/neurology	1 (2.3)
Other (family medicine and transitional year)	11 (25.0)
Year in training	
1 st year resident	21 (47.7)
2 nd year resident	8 (18.2)
3 rd year resident	14 (31.8)
Pediatric chief	1 (2.3)
Frequency of Burmese patients seen before residency	
Never	24 (54.6)
Once a year	7 (15.9)
Several times a year	11 (25)
2-3 times/month	2 (4.6)
Frequency of Burmese patients seen during residency	
Never	1 (2.3)
Once a year	2 (4.6)
Several times a year	21 (47.7)
Monthly	24 (31.8)
2-3 times/month	6 (13.6)

Table 2: Preversus postmodule measurements of correct answer to questions related to knowledge, attitudes, and comfort

Topic area	Sample size	Correct answer premodule, n (%)	Correct answer postmodule, n (%)	P
Knowledge questions*				
Timeline of Burmese refugees arrival	44	16 (36.4)	34 (77.3)	0.07
Number of languages spoken by Burmese Chin	44	6 (13.6)	24 (55.8)	0.2
Largest local Burmese ethnic groups	43	25 (58.1)	32 (74.4)	0.004
Identifying increased exposure to TB and hepatitis B	44	31 (70.5)	39 (88.6)	0.02
Identifying increased risk of cosleeping (2 questions)	44	23 (52.3)	39 (88.6)	0.18
	43	32 (74.4)	42 (95.5)	0.06
Identifying risk of lead poisoning (2 questions)	42	15 (35.7)	27 (64.3)	0.04
	44	9 (20.5)	34 (77.3)	0.66
Identifying use of traditional medicine/eliciting history (2 questions)	44	14 (31.8)	13 (29.6)	1.0
	44	29 (65.9)	42 (95.5)	0.001
Topic areas	Sample Size	Pre-mean (SD)	Post-mean (SD)	P
Attitude questions**				
Quality of care provided to Burmese children compared to other populations	44	5 (2)	5.3 (1.6)	0.14
Access to medical home for Burmese children compared to other populations	43	4.3 (1.7)	4.9 (1.5)	0.01
Establishing trusting patient-physician relationships with this population	44	4.7 (1.8)	5 (1.7)	0.13
Challenges obtaining an interpreter with the correct language and dialect	44	3.7 (1.1)	3.6 (1)	0.61
Challenges in timeliness of arrival of interpreter	44	4 (1.1)	3.8 (0.9)	0.17
Challenges in time required interpreter during patient visit	44	3.8 (0.9)	3.5 (1)	0.01
Challenges with comprehension of interpreted information	44	3.7 (0.9)	3.5 (0.8)	0.03
Comfort questions**				
Comfort caring for children of Burmese refugees compared with other patient populations	43	5.2 (1.9)	5.6 (1.5)	0.04
Comfort in addressing medical issues with Burmese families	44	5.6 (2)	5.8 (1.7)	0.24

*Calculated with Fisher's exact test, **Calculated with paired t-test. TB= Tuberculosis, SD=Standard deviation

were statistically significant improvements in resident knowledge [Table 2]. After viewing the module, there was a statistically significant decrease in the individuals interested in ordering unnecessary laboratories for patients (38.6%, 17/44 vs. 13.6%, 6/44; $P = 0.04$).

Statistically significant improvement was seen in three areas of resident attitudes: access to medical home, utilizing time with interpreter, and comprehension of interpreted information. Resident comfort in caring for Burmese refugees also improved significantly [Table 2].

In each of the surveys, participants were allowed to write about their experiences working with this population. Thematic evaluation of the qualitative data highlighted four main areas of discussion: access to interpreters and resources, verbal communication, nonverbal communication, and relationship building with cultural considerations.

Regarding access to interpreters and resources, there was a focus on the importance of obtaining timely access to an interpreter, either by phone, video, or in-person. Quick access to interpreting services and other resources was considered critical for providing appropriate care for Burmese patients. When participants discussed verbal communication, techniques such as using an interpreter with the appropriate dialect and speaking directly to families were a primary

focus. In nonverbal communication, participants highlighted the importance of using gestures and body language to express points. Overall, residents appeared to understand key techniques when working with interpreters such as, “try[ing] to talk directly to [the patients] instead of to the interpreter.”

Residents commented on being considerate of cultural differences in relationship building. Participants frequently cited empathy, patience, and clarifying concerns as important aspects of building a stronger patient-physician relationship. One participant states he, “sat down with dad, tried to ask questions about his basic understanding of organs, medical problems, and therapies – basically not assuming that their illness scripts or cultural beliefs were anything like ours.” Another participant noted she would, “listen to their concerns in a nonjudgmental way.”

Ninety-five percent of participants believed that this module has or will improve their care for Burmese patients. Themes that arose when asked if their care of Burmese patients has been altered since viewing the module focused on awareness and attitudes, comfort, and knowledge. Several participants noted they view their Burmese patients differently and awareness of their needs has improved. They also noted feeling better prepared and more comfortable caring for patients. Participants indicated that they are more knowledgeable

regarding specific health risks, and they better understood cultural practices.

Discussion

This study demonstrated that a brief intervention for medical trainees improves knowledge, attitudes, and comfort in caring for Burmese patients. Participants felt that this module had been or will be beneficial to them in providing care to Burmese refugees. A major contributor to the improvement of attitudes and comfort is likely the improved resident knowledge, in particular for residents whose clinical comfort and attitudes are closely tied to their experience and knowledge base.

Physicians and medical trainees are caring for growing numbers of refugees and immigrants, and their interest in global health is increasing.^[9,10] It is important that they receive training to enable them to care for these populations in a culturally appropriate way. Pediatric training programs have been particularly responsive to these changes. These programs have introduced global child health electives, residency tracks, and offered both formal and informal courses in global health.^[9,10] In taking these initial steps, programs are able to help their trainees gain a greater understanding of the global community at large.

In this study, more specific guidance on how to care for the local refugee population was presented. For example, the module reviewed the common spoken dialects of the local Burmese Chin, including Hakha and Falam. Residents were advised to be specific when obtaining an interpreter, for example, requesting a Burmese Chin Hakha interpreter rather than just a Burmese interpreter. Residents indicated this has helped them obtain the correct phone and internet-based interpreter for our population.

One of the limitations of this study was the low response rate, which was likely due to time constraints of medical residents. The response rate of those who attended the live presentations was much higher than the rate of pediatric residents responding to an E-mail. This was likely due to the fact that there was time set aside for them to complete the study if they wished to participate. Having a small response rate may inadvertently bias the results to those individuals who are particularly motivated to improve their care of Burmese refugees.

Conclusion

We used a systematic process in which to obtain the module's content. By reviewing the literature and collaborating with members of the Burmese community, we tailored the content

to the topics most relevant to physicians. The module continues to be used as part of the ambulatory curriculum. Having locally relevant resources, such as this module, available to learners is critically important to their growth as clinicians in providing culturally appropriate care for vulnerable populations, such as refugees.

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Conflicts of interest

There are no conflicts of interest.

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