

# The Effect of a Mock Medical Visit on Refugee Health Self-Efficacy and Medical Trainee Communication Apprehension

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## ABSTRACT

**Background:** As refugees adjust to a new country, their health care can take a toll. Refugees may have difficulty navigating a new health care system and experience low health self-efficacy. Another potential contributor is inadequate medical trainee curriculum addressing refugee health.

**Methods:** We devised simulated clinic experiences called mock medical visits. Surveys were utilized before and after the mock medical visits to assess the Health Self-Efficacy Scale for refugees and the Personal Report of Intercultural Communication Apprehension for trainees.

**Results:** Health Self-Efficacy Scale scores increased from 13.67 to 15.47 ( $P=0.08$ ,  $n=15$ ). Personal Report of Intercultural Communication Apprehension scores decreased from 27.1 to 25.4 ( $P=0.40$ ,  $n=10$ ).

**Discussion:** While our study did not reach statistical significance, the overall trends suggest mock medical visits can be a valuable tool to increase health self-efficacy in refugee community members and decrease intercultural communication apprehension in medical trainees.

Meanwhile, self-efficacy, which has been defined as “what you believe you can do with what you have under a variety of circumstances,”<sup>4</sup> has been associated with lower psychological stress and higher subjective well-being.<sup>5</sup> Relatedly, medical providers’ interactions with refugees may influence refugees’ health self-efficacy. Medical trainees are expected to work cross-culturally and serve a diverse population,<sup>6</sup> yet many are not comfortable with their knowledge of immigrant and refugee health.<sup>7</sup> Medical education and local-global health experiences can enhance physician awareness of challenges refugees face, provide trainees with opportunities to interact with and serve this vulnerable population, and increase cultural humility.

One possible barrier for medical learners providing care for refugees is intercultural communication apprehension, defined as the fear or anxiety associated with interaction with people of different groups.<sup>8</sup> Currently, there are no studies to our knowledge that explore approaches to decrease intercultural communication apprehension in medical trainees or the feasibility of a mock medical visit to potentially achieve this aim.

## BACKGROUND

Refugees experience a decline in health status after settling in the United States.<sup>1</sup> There are manifold reasons for this decline, including limited knowledge about the country’s health care system.<sup>2</sup> Refugees are eager to seek services, learn to navigate health care, and achieve self-sufficiency.<sup>3</sup>

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## Community Partner

The International Learning Program (ILP) in Milwaukee, Wisconsin provides secondary English, literacy, adult basic education, and citizenship classes to refugees in the area. ILP educators noted that the refugee learners may benefit from becoming more familiar with the US health care system and having more opportunities to positively interact with health care professionals. With this in mind, faculty and medical trainees at the Medical College of Wisconsin partnered with ILP to provide a health literacy cur-

riculum to refugee learners that consisted of didactic sessions on basic health topics and periodic mock medical visits (MMV). Through the series of educational sessions and MMVs, we sought to build partnership and trust with both refugees and clinic staff. This study explores the impact of a pilot simulated clinic experience—MMVs—on refugee learners and medical trainees. Specifically, our goals were to test the feasibility and possible effect of MMVs, with the hope that they can then be replicated to increase health self-efficacy in refugee community members and decrease intercultural communication apprehension in medical trainees.

## METHODS

Two MMVs were held at the ILP in April 2019 and November 2019. On the day of the MMV, the refugee learners present at the community center were given the option to participate in the MMV after their classes. Prior to the visit, an introductory video in both Karen and Burmese languages was shown to refugee learners to demonstrate what a typical new patient adult visit at a physician's office might look like. During the MMV, 2 medical interpreters were present to help obtain informed consent, translate surveys, and serve as interpreters. The learners also had the option to participate in the MMV without participating in the survey and without the use of medical interpreters.

Trainees were volunteers from the Medical College of Wisconsin residency training in pediatrics and medicine-pediatrics programs, as well as 3 medical students. Of note, all trainees who participated were interested in global health and had prior exposure to health literacy work among refugees at this community center. Each trainee was assigned a role during the MMV (ie, receptionist, physician, nurse, or answering questions before and after the MMV), provided consent, and completed pre- and post-simulation surveys.

After consent was obtained and the presurvey completed, learners were instructed to check in at the reception desk to fill out mock paperwork mirroring typical adult intake forms, then wait for their name to be called by the trainee acting as a nurse. This trainee then escorted the learner and interpreter into an exam room and took vital signs. The trainee acting as a physician then entered the exam room and completed a medical, social, and family history, along with a physical exam. Afterwards, the learners were instructed to check back in at the front desk and complete the postsurvey.

### Refugee Learner and Trainee Surveys

The refugee learner presurvey included 5 questions from the Health Self-Efficacy Scale (HSES), which consists of 5 items rated on an agreement Likert scale from 0 to 4, with higher scores representing higher health self-efficacy.<sup>9</sup> (See Appendix) The HSES was tested previously with cancer patients and showed adequate internal consistency ( $\alpha > 0.75$ ). We chose the

**Table.** Demographics of Refugee Learners and Medical Trainee Volunteers

Demographic	Refugee Learners (n=15)	% of Total
Female	9	60.0
Male	6	40.0
Identified Karen as native language	14	93.3
Identified Rohingya as native language	1	6.7
Identified Burma as native country	15	100
Has been in the US for 2 to 4 years	8	53.3
Has been in the US for 5 to 6 years	5	33.3
Has been in US for > 6 years	2	1.3
Demographic	Trainees (n=10)	% of Total
Female	8	80.0
Male	2	20.0
Medical student	3	30.0
First-year resident	1	10.0
Second-year resident	3	30.0
Third-year resident	3	30.0

scale based on its health relevance and accessibility for participants who do not read English as a primary language, although it has not been used previously with refugees. Examples of HSES items include “I am confident I can have a positive effect on my health” and “I feel that I am in control of how and what I learn about my health.” The postsurvey included a repeat of the HSES questions, 3 questions assessing the visit using a Likert scale, and 1 question regarding perceptions of future comfort at a clinic or hospital visit.

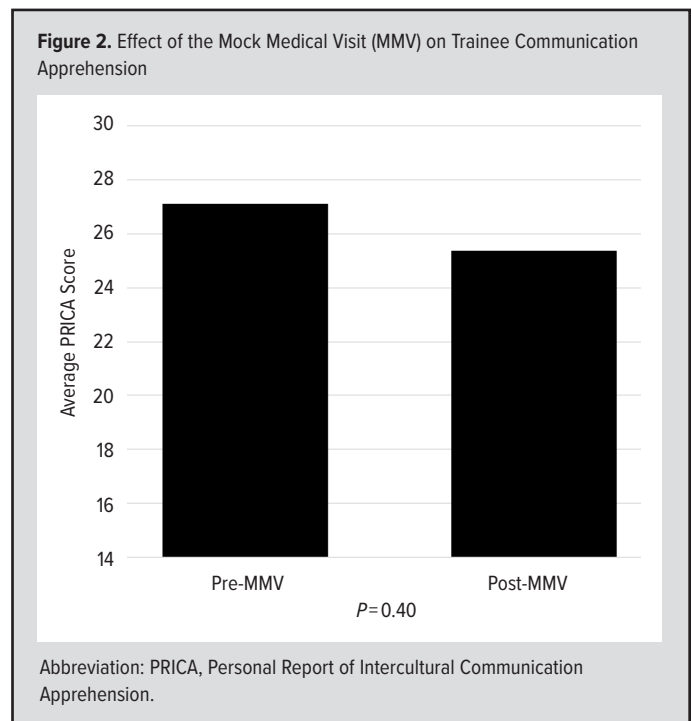
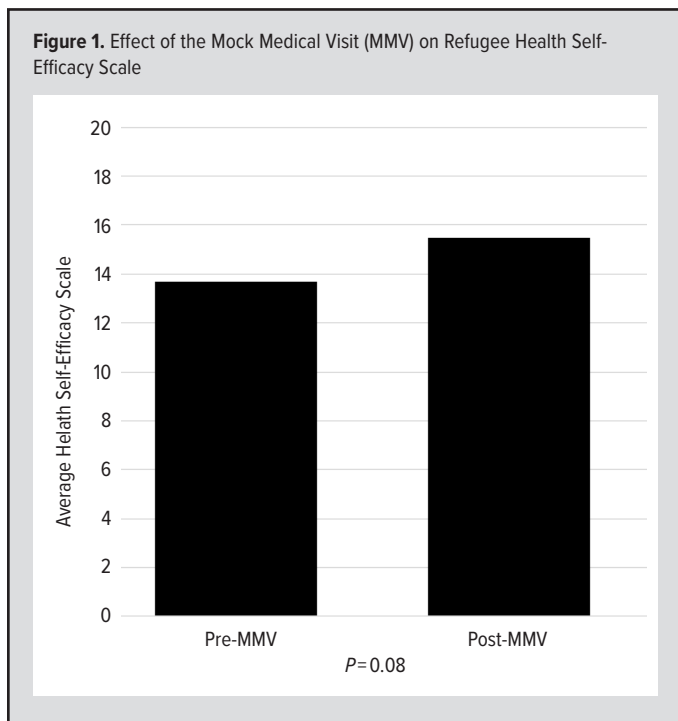
The trainee presurvey included the Personal Report of Intercultural Communication Apprehension (PRICA), a 14-item Likert-type scale with each question ranked from 0 = strongly disagree to 4 = strongly agree, with sum scores ranging from 14 to 70.<sup>8,10</sup> (See Appendix.) The PRICA has high reliability ( $\alpha > 0.9$ ) and content, construct, and predictive validity evidence among undergraduate learners.<sup>8,10</sup> Communication apprehension scores are interpreted as low (14-31), moderate (32-51), or high (52-70). Examples of PRICA items include, “Communicating with people from different cultures makes me uncomfortable,” “I am afraid to speak up in conversations with a person from a different culture,” and reverse-scored items such as, “I face the prospect of interacting with people from different cultures with confidence.” The postsurvey included a repeat of the PRICA questions and an open-ended question to gather qualitative responses on how the trainees perceived the MMV added to their education.

A paired sample *t* test was used to compare presurvey and postsurvey HSES and PRICA scores.

This study was approved by the Medical College of Wisconsin Institutional Review Board.

## RESULTS

A total of 15 refugee learners and 10 medical trainees participated in the two MMV sessions. The Table shows demographics of the study participants. Figure 1 shows the trend in HSES following



the MMV. Average HSES among refugee learners increased from 13.67 to 15.47 ( $P=0.08$ ,  $n=15$ ). Cronbach's alpha across items on the HSES was 0.892 in this sample. Of the 15 participants who responded, 11 reported that after the MMV, they would feel comfortable when seeing a doctor in a clinic or hospital. Four participants reported that they would feel neutral.

Figure 2 shows the trend in PRICA following the MMV. Average PRICA scores among trainees decreased from 27.1 to 25.4 ( $P=0.40$ ,  $n=10$ ). Internal consistency for the PRICA in this sample was  $\alpha=0.899$ . Trainee responses regarding how the MMV added to their education included the following: "helped me realize how much language barriers can impact interactions with patients/individuals from different cultures," "increased cultural humility," "practice communicating through a translator," and "it allowed me to see what parts of the medical visit are confusing."

## DISCUSSION

Figure 1 shows an overall positive trend in HSES following the MMV. Refugee learners also reported that they would feel either neutral or more comfortable when seeing a doctor after the MMV. Figure 2 provides data to suggest that the MMV may improve communication apprehension in medical trainees. In addition, the open-ended responses from trainees indicate they thought the MMV experience was valuable to their education. Though not statistically significant in this limited sample, a trend toward score improvement and overall positive experiences by both refugees and trainees suggest the MMV is a worthwhile educational tool to explore further.

Regarding limitations to this study, participation in basic

health didactic sessions in addition to the MMV was not tracked as a potential confounder. Additionally, this study did not assess if the effect of participating in the MMV may differ based on the role the trainee is assigned (ie, receptionist, nurse, doctor). For future studies, tracking the role(s) trainees are assigned may help determine if this is a significant contributor to the trend in PRICA scores. Further, this pilot program cannot be generalized because participants who volunteered may be more interested or motivated than the general population; PRICA scores were low at baseline among these trainees, so future studies could test its impact as part of a randomized curriculum to limit convenience sampling bias.

Future steps also may include engaging and incorporating refugee feedback for more targeted MMV interventions, refining our measurement tools, expanding to other community partners, and engaging trainees beyond those with a specific interest in refugee health care.

This study introduces the MMV as a tool that may potentially improve self-efficacy and comfort with the US health care system in refugees; it also may decrease communication apprehension in medical trainees. To our knowledge, this is the first study describing the implementation of a MMV in a community setting with participation of both refugees and medical trainees. It is also novel in that it addresses a potential approach to improving communication apprehension in medical trainees and health self-efficacy among refugees. The MMV may be a valuable and intriguing tool to introduce in communities and medical curricula and could be used broadly with a variety of populations to develop self-efficacy.

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**Appendices:** Available at [wmjonline.org](http://wmjonline.org).

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