

PROGRAMME DESCRIPTION

Design of a service project that provides a model for interprofessional collaboration and layered learning within the refugee and asylum seeker community

Donika Emerllahu¹, Lirika Veseli², Ashley Blaakman³, Christine R. Birnie²

- ¹ Rochester Institute of Technology, Rochester, New York, United States
- ² Wegmans School of Pharmacy, St. John Fisher University, Rochester, New York, United States
- ³ Rochester Regional Health, Rochester, New York, United States

Keywords

Asylum-seeker Interprofessional education Layered-learning Refugee Service

Correspondence

Christine R. Birnie
Wegmans School of Pharmacy
St. John Fisher University
New York
United States
cbirnie@sif.edu

Abstract

Background: Development of an interprofessional service outreach within the refugee and asylum-seeker population gives pharmacy trainees the opportunity to develop healthcare skills and gain cultural awareness. Programme description: The interprofessional team prepared for the medical service trip through meetings, gathering supplies, and engaging in fundraising events. The team partnered with Siguiendo los Pasos de Jesús (SPJ) and Annunciation House while observing and partaking in service. A retrospective review of medical records was completed to develop the research project. Evaluation: A team of nine participated in a service project providing medical care and support for asylum-seekers. Layered learning and the importance of interdisciplinary communication were demonstrated within the team. The most common medical ailments for patients were respiratory, gastrointestinal diagnoses and headache/pain. Future plans: Service outreach offers the experience of caring for underserved populations and increases awareness of crosscultural development, which is transferable in any clinical setting.

Introduction

According to the UN Refugee Agency, at the end of 2019, 79.5 million persons were displaced worldwide due to persecution, violence, conflict, and human rights violations. Of these individuals, 4.2 million were asylum seekers, and 26 million were refugees (UNHCR, n.d.).

Many arrive in the United States without health concerns and access to adequate medical care (McDonald *et al.*, 2012; Chuah *et al.*, 2018). Refugees and asylum-seekers from Mexico state that the reason for departure from their home country is to escape danger from violence and crime. Additionally, due to prolonged detention and asylum processes, individuals are often sent back to Mexico to await legal

proceedings, settling in Mexican border cities like Juárez. During these waiting periods, many asylum-seekers lack necessities and the healthcare they may need. They often endure poor living conditions, uncertain sanitation, inadequate access to food or water, and the risk of falling victim to crime and abuse. Each factor negatively affects these individuals' health (Delgado *et al.*, 2022).

Juárez, Mexico, is labelled as an "unplanned community" where poverty is high with the scarcity of potable water, sewage connections, and drainage systems (Pechak et al., 2020). Many asylum seekers have found a home in this area, but these conditions significantly impact their health. In the community of the colonies of Juárez, the mean length of education is approximately 7.89 years (Pechak et al., 2020). Therefore, literacy is also a

potential problem for these individuals when providing information throughout the asylum process at the US-Mexico border.

El Paso, Texas, is one of the border crossings where refugees and asylum seekers enter the United States from Juárez (Castañeda et al., 2014). Many individuals arrive with complex mental and physical health challenges (Pechak et al., 2020). In addition to coming from high poverty, these individuals experience difficulties with border control policies and trauma (McDonald et al., 2012). These health challenges may become detrimental due to unfamiliarity with available services and a lack of understanding of various healthcare professionals' roles and responsibilities (Mirza et al., 2014). El Paso and Juárez Organisations operate to help refugees and asylum-seekers overcome the healthcare barriers they may encounter.

In El Paso, the Annunciation House is a volunteer organisation serving the asylum population at every level of their entry point into the United States (Annunciation House, n.d.). Working closely with Immigration and Customs Enforcement (ICE), they provide asylum-seekers shelter, clothing, food, and necessities for those awaiting their court dates in the United States (Annunciation House, n.d.).

The organisation also works with individuals in Juárez to provide care and assistance to needy families. Additional support is provided to asylum seekers in Juarez from non-profit organisations such as Siguiendo Los Pasos de Jesús (SPJ) (SPJ, n.d.). SPJ works with individuals settling in Juárez to provide necessities, including supplemental food, clothing, medical and dental care, school supplies, and sponsorships (Annunciation House, n.d.).

Pharmacy students have limited knowledge of the needs of refugees and asylum-seekers. Their experiences are typically limited to classroom-based guest speakers or include a clinical rotation at a site whose patient population includes refugee healthcare. The project aimed to develop an interprofessional service outreach within the refugee and asylum-seeker population to allow pharmacy trainees to develop their healthcare skills and gain cultural competence while serving the local community.

Programme description

A medical service trip for health profession students was designed to allow students to serve refugees and asylum-seekers at the US-Mexico border. The healthcare professionals and students were recruited to ensure an interprofessional educational experience and an integrated, multidisciplinary approach to patient care.

Established partner organisations working with asylum seekers at the border were selected to provide infrastructure and ensure the team's medical skills utilisation through a medical clinic and other health-related projects while ensuring direct access to the refugees or asylum-seekers. Pre-trip meetings were conducted to prepare the team for the trip and educate team members regarding the population being served.

A patient-centred research project was conducted on the service trip further to develop the interdisciplinary student team's research skills. Before the trip, the team met to design a research project allowing pharmacists and other health professionals to understand asylum seekers' medical needs better. The project aimed to determine the most common medical conditions and associated treatments observed among refugees and asylum seekers. In addition, team members collected data on-site during the trip and conducted retrospective medical reviews within the partner organisations. The St. John Fisher University Institutional Review Board (IRB) approved the protocol in Rochester, New York (NY).

Evaluation

In Autumn 2019, a multidisciplinary team of health professionals and students was recruited to join the service trip. The team included two pharmacist faculty members, one pharmacy resident, a second and fourth-year (of four) doctor of pharmacy student, a nurse clinician, two nursing students and a pre-medical student.

Monthly pre-trip meetings, beginning four months before the trip, were conducted to assist with trip preparation, coordinate travel logistics and supplies, and allow team members to get to know one another. The meetings were also used to discuss the trip's goals, learn about the environment at the border, and gain familiarity with partner organisations. Participants heard from individuals from a local refugee support centre. They utilised web-based resources to educate the team about the population being served, including materials provided by the partner organisations and personal accounts of asylees and individuals working with asylees at the border. See Table I for a partial list of web-based resources utilised. To financially support the trip, the team engaged in several fundraising and awareness events, including organising fundraisers at local restaurants, writing letters to University-based groups (Campus Ministries) and establishing individual webbased fundraising sites. The team also participated in a local volunteer event with a medical supply recovery and redistribution organisation (Intervol) willing to donate medical supplies for the project.

Table I: Educational resources utilised to educate the team about the border environment

Title/description	Website
The out crowd: NPR podcast from November 17, 2019	https://www.thisamericanlife.org/688/the-out-crowd
UNHCR: Displacement in Central America	https://www.unhcr.org/en- us/displacement-in-central- america.html
Washington Post article about Annunciation House	https://www.washingtonpost.co m/immigration/ruben-garcia- has-sheltered-migrants-in-el- paso-for-over-four-decades-with- a-crush-at-the-border-he-now- needs-a- warehouse/2019/04/01/2e8e658 0-5243-11e9-af35- 1fb9615010d7_story.html
Ted talk: The psychological impact of child separation at the US-Mexican Border	https://www.ted.com/talks/luis h zayas the psychological impa ct of child separation at the u s mexico border?language=en
Netflix production: Living undocumented	https://www.youtube.com/watc h?v=m-vomGsKFMA

In March 2020, nine healthcare providers and students travelled from Rochester, NY, to El Paso, Texas and Juárez, Mexico, to participate in the interprofessional medical service outreach project. The week-long trip provided medical care and support with the Annunciation House in El Paso and SPJ in Juárez. Partnering with each organisation allowed team members to work with asylum-seekers on both sides of the border.

In El Paso, the team partnered with Annunciation House to serve asylum-seekers released from ICE while awaiting legal proceedings. Upon arrival at the centre, individuals were assessed for acute medical needs and provided basic medical care. The team treated individuals for medical conditions and provided guests with food, clothing, and temporary shelter while awaiting transportation to family and friends willing to assist during their waiting periods. Team members organised the medication room, removed expired medication, and helped individuals settle upon arrival, including offering new "guests" clean clothes and warm meals.

While at Annunciation House, chart reviews were performed for patients previously provided medical care. Patient demographics, including age, sex, pregnancy status, chief medical complaint, diagnosis and treatment, were collected in a retrospective medical record review. The most common medical conditions and treatments were then categorised. Data from 223 patients were collected, noting that the most common medical ailments were related to a

respiratory diagnosis, followed by headaches, most frequently treated with ibuprofen (Figure I, Table II, and Table III).

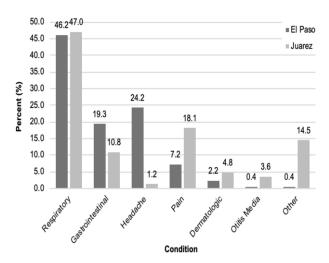


Figure 1: Most common medical ailments in El Paso and Juarez (The category "other" includes chronic conditions such as diabetes, hypertension, depression, and anxiety)

Table II: Patient demographics from Juárez and El Paso health clinics

	Juárez (n=84)	El Paso (n=223)
Female, n (%)	51 (60.7)	123 (55.2)
Pregnant, n (%)	2 (2.4)	8 (3.6)
Age, n (%)		
Children (0-11 yr)	37 (44.0)	83 (37.2)
Young adult (12-17 yr)	10 (11.9)	8 (3.6)

Table III: The most common medical treatments in El Paso and Juárez health clinics

El Paso	Juárez
Ibuprofen	Guaifenesin, dextromethorphan
Bismuth Subsalicylate	Polyethene glycol 3350
Ibuprofen	Meloxicam, acetaminophen
Ibuprofen	Acetaminophen
Hydrocortisone	Cephalexin, prednisone
Amoxicillin, Ibuprofen	Amoxicillin
	Ibuprofen Bismuth Subsalicylate Ibuprofen Ibuprofen Hydrocortisone Amoxicillin,

In Juárez, the team partnered with SPJ, to provide medical care and assistance to individuals residing in the Juárez Colonia. Items such as food, clothing, household items, and essential needs were brought to the people of Juárez, including extensive donated supplies from the organisation's headquarters in El Paso. The team provided assistance in distributing the supplies and conducted an after-school activity for the children.

The team conducted a day-long free mobile medical clinic, partnering with two local physicians who travelled from El Paso to Juarez. Patients being seen at the clinic received a registration card upon arrival, which served as the medical record for the patient. Team members in the triage area, taking vitals, blood pressure, blood glucose, and heights/weights. Patients were then seen by physicians or nurse practitioners providing primary care for acute conditions. The pharmacists and pharmacy students also managed the pharmacy, assisted the providers with product selection, dispensed appropriate medication and counselled patients on the proper use of their medication. All data was compiled from the registration cards collected during routine regular standard treatment for the patient.

Patient demographics, including age, sex, pregnancy status, chief medical complaint, and diagnosis, were collected from the registration cards at the medical clinic (Table II). Of the 84 patients treated at the Juárez clinic, the most common medical ailments were related to respiratory diagnosis, followed by pain (Figure 1). Respiratory symptoms were most commonly treated guaifenesin with dextromethorphan, while general pain was most often treated with acetaminophen (Table III). Multiple patients in Juárez presented with chronic conditions such as depression, anxiety, and diabetes, among others. These conditions were grouped under the category "other" for this project.

Future plans

Over the years, Interprofessional Education (IPE) has been incorporated into accreditation requirements across multiple health profession programs (APhA, n.d.). The Accreditation Council for Pharmacy Education (ACPE) devotes one entire standard, of its 25, to IPE, emphasising its importance within the pharmacy curriculum (ACPE, 2016). Like other professions, pharmacy students must learn from and about other health professions to improve collaboration and the quality of care (Buring *et al.*, 2009; Busari *et al.*, 2017; CDC, 2021). Research has

shown that interprofessional collaboration and effective communication can improve patient care and outcomes (Hallin *et al.*, 2009).

Medical service trips such as these have long been a source of valued interprofessional education across disciplines, adding to and enhancing traditional educational strategies for interprofessional collaboration (VanderWielen et al., 2015; Fitzgerald et al., 2018; Elmore et al., 2019). The interdisciplinary team with nursing students provided valuable learning opportunities to pharmacy students that paralleled IPE previously experienced in the classroom and experiential education. Pharmacy residents and students worked alongside nurses and nursing students to select appropriate drug therapies and provide a team approach to patient care. This was utilised when the providers discussed the proper medication and devised a treatment plan. These experiences enabled students across the disciplines to learn about different healthcare providers' roles and responsibilities, communicate effectively, and work as critical healthcare team members. The students also directly saw the impact of the social determinants of health on patients in both clinical settings. Many individuals residing in the Juárez Colonies and seeking asylum do not have access to healthcare and education, have limited economic stability and access to food, water, transportation or quality housing. These factors impact an individual's overall health (Jobst et al., 2020; CDC, 2021). Students witnessed the impact of these factors on patients' lives and the significant barrier this created in maintaining their health.

Layered learning has been shown to augment the student learning experience (Pinelli et al., 2018). During this project, the team composition provided the ability for a layered learning approach to pharmacy student education. The pharmacy team consisted of a third-year student, a fourth-year student on clinical rotation, a pharmacy resident, and a faculty member. This model allowed the faculty to oversee the pharmacy resident while the resident provided oversight for the pharmacy students. This was particularly helpful in the diverse clinical roles encountered throughout the trip, the guidance of the research project and general leadership opportunities that arose throughout the trip experience.

The service outreach provided a unique educational experience for pharmacy trainees to build upon their cultural competency skills in working directly with asylum-seekers. Providing clinical care to this distinct population incorporated language and cultural barriers, socio-economic challenges and significant healthcare access concerns. This project forced

students to devise practical plans for meeting their medical needs despite these barriers to healthcare. It enabled them to build upon their clinical skills while actively serving and learning about the asylum-seeker population. Pharmacy students were able to identify obstacles to care and expand their knowledge of various health conditions and treatments. Understanding multiple patient populations and their healthcare needs is an essential curricular component for students (McDonald *et al.*, 2012).

In addition, the research project allowed students to work collaboratively and further develop their research skills while learning about this unique population's healthcare needs. The clinic patients presented with common illnesses, such as cold and flu, headache, stomach ache, and diarrhoea, similar to common medical concerns exhibited in ambulatory care settings in their communities. Working in a setting with limited resources, the students also gained valuable experience serving and working together to develop the best possible solution for patients in limited-resource environments.

This service outreach provided an opportunity to care for an underserved population and offered numerous benefits to the student's educational and professional development. Experience working directly with the asylum seeker's health concerns strengthened the students' cross-cultural skill development and brought awareness of the impact of social determinants of health. The experience also built upon the student's clinical and research skills within an interprofessional team. The knowledge and skills learned on a service trip are directly transferable to the pharmacy setting in any community. St. John Fisher University will continue working with the refugee and asylum seeker populations through the Annunciation House and SPJ. Implementation is critical for identifying the needs for projects with the primary goal of helping an underserved population. The service outreach trip allowed the team to establish a framework that can be utilised in future projects. In addition, the skills developed are transferable to helping underserved populations locally or globally.

Acknowledgement:

The authors would like to thank the entire medical team and the partnering organisations, Siguiendo los Pasos de Jesús, (SPJ) and Annunciation House, of their support of this project.

Conflict of interest

The authors declare no conflict of interest.

References

ACPE. (2016). Accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree. Accreditation Council for Pharmacy Education. https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf

Annunciation House. (n.d.). *About*. Retrieved December 10, 2020, from https://annunciationhouse.org/

APhA. (n.d.). Interprofessional education: Growing focus on preparing students for team-based care. American Pharmacists Association. Retrieved February 23, 2021, from: https://www.pharmacist.com/article/interprofessional-education-growing-focus-preparing-students-team-based-care?is sso called=1#:~:text=The%20Institute%20of%20Medicine%20

Buring, S. M., Bhushan, A., Broeseker, A., Conway, S., Duncan-Hewitt, W., Hansen, L., & Westberg, S. (2009). Interprofessional education: Definitions, student competencies, and guidelines for implementation. *American Journal of Pharmaceutical Education*, **73**(4), 59. https://doi.org/10.5688/aj730459

Busari, J. O., Moll, F. M., & Duits, A. J. (2017). Understanding the impact of interprofessional collaboration on the quality of care: A case report from a small-scale resource limited health care environment. *Journal of Multidisciplinary Healthcare*, **10**, 227–234. https://doi.org/10.2147%2FJMDH.S140042

Castañeda, E., Morales, M. C., & Ochoa, O. (2014). Transnational behavior in comparative perspective: The Relationship between Immigrant integration and transnationalism in New York, El Paso, and Paris. *Comparative migration studies*, **2**(3), 305–333. https://link.springer.com/article/10.5117/CMS2014.3.CAST

CDC. (2021). Social determinants of health at CDC. Centers for Disease Control and Prevention. https://www.cdc.gov/socialdeterminants/about.html

Chuah, F. L. H., Tan, S. T., Yeo, J., & Legido-Quigley, H. (2018). The health needs and access barriers among refugees and asylum-seekers in Malaysia: A qualitative study. *International Journal Equity Health*, **17**(1), 120. https://doi.org/10.1186%2Fs12939-018-0833-x

Delgado, R. I., De la Rosa, M., Picado, M. A., Ayoub-Rodriguez, L., Gonzalez, C. E., & Gemoets, L. (2022). Cost of care for asylum seekers and refugees entering the United States: The case of volunteer medical providers in El Paso, Texas. *PLoS One*, **17**(12), e0278386. https://www.doi.10.1371/journal.pone.0278386

Elmore, C. E., Tingen, J. M., Fredgren, K., Dalrymple, S. N., Compton, R. M., & Carpenter, E. L. (2019). Using an interprofessional team to provide refugee healthcare in an academic medical centre. *Family Medicine and Community*

Health, **7**(3), e000091. https://doi.org/10.1136%2Ffmch-2018-000091

Fitzgerald, S. N., Leslie, K. F., Simpson, R., Jones, V. F., & Barnes, E. T. (2018). Culturally effective care for refugee populations: Interprofessional, interactive case studies. *The Journal of Teaching and Learning Resources*, **14**, 10668. https://doi.org/10.15766/mep 2374-8265.10668

Hallin, K., Kiessling, A., Waldner, A., & Henriksson, P. (2009). Active interprofessional education in a patient based setting increases perceived collaborative and professional competence. *Medical Teach*, **31**(2), 151–157. https://doi.org/10.1080/01421590802216258

Jobst, S., Windeisen, M., Wuensch, A., Meng, M., & Kugler, C. (2020). Supporting migrants and refugees with posttraumatic stress disorder: Development, pilot implementation, and pilot evaluation of a continuing interprofessional education for healthcare providers. *BMC Medical Education*, **20**(1), 311. https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02220-3

McDonald, Y. J., & Grineski, S. E. (2012). Disparities in access to residential plumbing: A binational comparison of environmental injustice in El Paso and Ciudad Juárez. *Population and environment*, **34**(2), 194–216. https://link.springer.com/article/10.1007/s11111-011-0154-0

Mirza, M., Luna, R., Mathews, B., Hasnain, R., Hebert, E., Niebauer, A., & Mishra, U. D. (2014). Barriers to healthcare access among refugees with disabilities and chronic health conditions resettled in the US Midwest. *Journal of Immigrant and Minority Health*, **16**(4), 733–742. https://doi.org/10.1007/s10903-013-9906-5

Pechak, C., Howe, V., Padilla, M., & Frietze, G. A. (2020). Preparing students to serve a refugee population through a health-focused interprofessional education experience. *Journal of Allied Health*, **49**(3), e131–e138

Pinelli, N. R., McLaughlin, J. E., Khanova, J., Eckel, S. F., Vu, M. B., Weinberger, M., & Roth, M. T. (2018). Identifying the presence of cognitive apprenticeship in the layered-learning practice model. *American Journal of Pharmaceutical Education* **82**(1), 6155. https://doi.org/10.5688%2Fajpe6155

SPJ. (n.d.). About. Siguiendo los Pasos de Jesus, Inc. Retrieved December 10, 2020, from: https://www.spjinc.org

UNHCR. (n.d.). *Refugee statistics*. United Nations High Commissioner for Refugees. Retrieved December 10, 2020, from https://www.unhcr.org/refugee-statistics/

VanderWielen, L. M., Halder, G. E., Enurah, A. S., Pearson, C., Stevens, M. P., & Crossman, S. H. (2015). Short-term service trips and the interprofessional team: A perspective from Honduras. *Journal of Interprofessional Care*, **29**(2), 168–169. https://doi.org/10.3109/13561820.2014.942775