Developing an Interprofessional Student-Led Clinic to Address Health Disparities in a Pacific Islander Migrant Community

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Abstract

Student-led free clinics (SLFC) have become a way to provide care to vulnerable, uninsured populations. SLFCs can offer the opportunity to integrate interprofessional education models emphasizing the roles of different health care disciplines with hands-on learning experiences for students. In 2013, the University of Arkansas for Medical Sciences Northwest established the North Street Clinic, an interprofessional SLFC, in an effort to address the health disparities of the local Marshallese community. This article describes the establishment of the clinic and highlights its core features, such as its unique patient population, interprofessional care teams, use of community health workers, chronic disease management, community partnerships, and use of technology. The North Street Clinic can serve as a model for other SLFCs seeking to integrate IPE into a free care model focused on meeting the chronic disease disparities of an underserved population.

Introduction

Despite the passage of the Patient Protection and Affordable Care Act (ACA), there are still underserved and underinsured communities in the United States.1 Student-led free clinics (SLFC) are one means of providing chronic care to uninsured populations that may otherwise not have access to care.2, 3 At the same time, health care delivery and training of health care professionals are moving towards an interprofessional model that emphasizes the integration of multiple professionals to improve patient care.4-8 Interprofessional education (IPE) and training is acknowledged to be an important component in providing patient-centered, affordable care with professionals who work to the full scope of their expertise.9 SLFCs represent an opportunity to provide health care to uninsured and underserved populations, while simultaneously providing IPE. The North Street Clinic model is one example of an interprofessional SLFC for chronic disease management in a unique underserved migrant population.

Background and Development of the North Street Clinic

In 2008, the University of Arkansas for Medical Sciences (UAMS) established UAMS Northwest (UAMS NW) as a regional campus in Fayetteville, Arkansas, a more rural, yet rapidly growing area of the state. UAMS NW builds upon UAMS’ strong primary care presence in the northwest region of the state and increases the university’s capability to train physicians, pharmacists, nurses, and other health care professionals. The regional campus now serves ~250 students, residents, and fellows per year. In 2009, the new campus began its first academic year with a strong commitment to IPE that is integrated with the university’s community outreach and health disparities research efforts.10 When developing the SLFC, an interprofessional planning team was assembled to ensure the clinic met the needs of both the patients and the students and did not duplicate current services provided in the community. The interprofessional planning team included the regional campus Deans from the Colleges of Medicine, Nursing,
and Pharmacy, the Vice Chancellor of UAMS NW, and the Director of the Office of Community Health and Research. Later, the Director of the internal medicine residency program, the Director of student services, and an Associate Professor from the College of Pharmacy with a secondary appointment in the Department of Family and Preventive Medicine joined the team.

Initial planning for the SLFC began in January 2013, and a multi-phase needs assessment was conducted. In the first phase, the interprofessional planning team reviewed prior community needs assessments conducted in 2004 and 2009 that showed high rates of chronic disease and a lack of insurance within the community. The second phase consisted of a Health Survey of ~2500 community members in order to understand health concerns. In the third phase, researchers conducted six focus groups with minority populations in Northwest Arkansas, with a dual focus on community health concerns and barriers to health care access. The final phase consisted of an environmental scan/gap analysis of current safety net clinics within the community.

Based on these needs assessments, the Marshallese community was identified as having the greatest need for three reasons. First, Marshallese experience greater health disparities as compared to other populations, particularly in chronic conditions such as type 2 diabetes and cardiovascular disease. Second, high numbers of Marshallese migrants are uninsured and have limited access to affordable health care. Third, the Northwest Arkansas Marshallese community is the largest population of Marshall Islanders in the continental United States with ~12,000 Marshallese residents in the area.

Marshallese Community

Some background on the Marshallese community is necessary to explain the SLFC’s structure and focus. To understand the health disparities of this community, it is important to be informed about the history between the United States (US) and the Republic of the Marshall Islands (RMI). The RMI consists of 1,156 individual islands and atolls in Micronesia. Between 1946 and 1958, the US tested nuclear weapons on several of the Marshall Islands. These tests were equivalent in payload to 7,200 Hiroshima-sized bombs. The largest test, carried out in March 1954, had a yield of 15 megatons (over 1,000 times the strength of the bomb dropped on Hiroshima), and exposed Marshall Islanders to significant levels of nuclear radiation. People who inhabited the bombed islands and atolls were relocated; however, Marshallese living on nearby atolls were not relocated and suffered immediate and long-term injuries and illnesses from exposure to nuclear fallout.

The Atomic Energy Commission at one point listed the RMI as one of the most contaminated places in the world, and several studies demonstrate ongoing health effects from the nuclear testing. The Marshallese population living in the RMI and the US suffers from a significant and disproportionate burden of type 2 diabetes. Rates of type 2 diabetes in the Marshallese are among the highest of any population group in the world, ranging from 20% to 50%, compared to 8.3% for the US population and 4% worldwide. Our local screenings showed rates of 38.4% of Marshallese adults tested positive for type 2 diabetes and 32.6% tested positive for prediabetes. The health disparities of this community are exacerbated by a lack of access to insurance that is a result of their unique migrant status. Signed in 1986, the Compact of Free Association (COFA) between the RMI and the US allows Marshallese to live and work in the US, and in return allows for US military use of the RMI for military purposes. The Marshallese population in the US is increasing, having tripled from 2000 to 2010. It is expected that, within a few decades, there will be more Marshallese living in the US than in the RMI. When the COFA was signed, COFA migrants had access to Medicaid. However, in 1996, the Personal Responsibility and Work Opportunity Act of 1996 excluded COFA migrants from the category of eligible immigrants. COFA migrants are not eligible for Medicaid or Medicaid Expansion, which is part of the ACA. Thus, even with the ACA, many Marshallese COFA migrants are uninsured. In Arkansas, the overall uninsured rate is 7.9%; however, a sample of Marshallese participants (N= 401) showed that 46% were uninsured. Due to the findings of our needs assessment and the health disparities faced by this community, the SLFC was established to provide chronic disease management to Marshallese patients diagnosed with diabetes and other comorbidities.

Clinic Characteristics

Key features of the North Street Clinic at UAMS NW include: (1) targeting a unique patient population with significant disparities; (2) integrating community health workers (CHW); (3) focusing on chronic disease management rather than acute

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care; (4) integrating interprofessional education and administration throughout all aspects of the clinic; (5) engaging community partnerships to ensure continuum of care; and (6) using technology to facilitate the dual missions of patient care and educational training and experience.

Target Patient Population

The North Street Clinic focuses on a unique patient population, the Marshallese, with significant health disparities. Students gain important benefits from contact with this patient population. First, working across linguistic and cultural boundaries gives students the opportunity to develop and learn strategies for working with an interpreter, as well as in conducting exams and patient histories with patients whose frame of reference may differ from the students’ backgrounds. Second, students gain direct experience in treating chronic diseases within a community whose socioeconomic position limits treatment options for many of the patients. This contributes to student understandings of socio-ecological factors that often affect patient health outside of the common models of personal responsibility and individual education.

In addition, focusing on Marshallese patients presents a number of opportunities to educate students about health disparities. An integral aspect of North Street Clinic operations is didactic sessions for students on Marshallese culture, history, political status, socioeconomic position, health disparities, and health beliefs. Integration of educational sessions into the North Street Clinic allows students to understand the social determinants of health that contribute to the high incidence of chronic disease in the Marshallese population and allows students to gain knowledge of the patient population prior to encounters in the clinical setting. Changes in students’ knowledge, attitudes, and behaviors is described in another article. The educational sessions are provided by Marshallese CHWs and health care providers from medicine, nursing, and pharmacy.

Community Health Workers

One key to the North Street Clinic’s engagement with the Marshallese community is the use of trained or certified CHWs who are trusted members of the Marshallese community. There is increasing evidence that CHWs are an important part of the health care team for managing chronic disease with underserved populations. However, few health professionals have the opportunity to work with CHWs during their educational experience. The integration of CHWs into the North Street Clinic combines a better patient care experience and unique educational opportunities for students to learn how to include CHWs as part of the interprofessional care teams in the SLFC.

Marshallese CHWs are integral in building trust with the Marshallese community and to improving the care provided to Marshallese patients. The CHWs provide interpretation services during clinic visits. They also contact patients prior to clinic visits, which has significantly decreased missed appointments due to transportation and other issues. The CHWs are often called upon to contact patients between clinic visits to make sure they understand and are following the care plan created during the clinic visit. Marshallese CHWs also provide ongoing education to the interprofessional student teams on Marshallese culture, which further reinforces and develops the students’ grasp of culturally-competent medical care.

Chronic Disease Management

The North Street Clinic focuses on chronic disease management for diabetes, hypertension, and related comorbidities. The consistent patient population allows students the ability to gain in-depth experience with building relationships with patients, assessment, diagnoses, treatment, and seeing disease progression and complications related to these chronic conditions. The socioeconomic position of the Marshallese patients also presents students with the challenge and opportunity to find ways to treat these chronic conditions in ways that are still accessible and affordable for uninsured patients. Management of chronic diseases also guides the scheduling of follow-up appointments for North Street patients. Effort is made for patients to see the same interprofessional team over the course of a semester. This continuity of care allows students to see the effects of their recommended treatments, as they might experience in their later health care practices.

Interprofessional Education and Administration

IPE is one of the primary missions of the North Street Clinic. The clinic is organized around the interprofessional health care team, consisting of one student each from the College of Medicine, College of Nursing, and College of Pharmacy with a focus on task-sharing across professional boundaries. Students divide up tasks, such as intake, pa-
tient history, and physical examination. Then interprofessional students collaborate and present the patient, including treatment recommendations, counseling, and follow-up care to attending faculty preceptors. In addition to the students, CHWs are present during exams to facilitate communication and translate medical concepts for patients. Faculty preceptors from all the Colleges are represented and model a cooperative working relationship during the patient presentation portion of the visit. This creates a collegial and collaborative working culture in the clinic as preceptors model the kinds of interprofessional dialogues that are integral to the IPE process. This also increases student learning opportunities because students interact with faculty outside of their college, thus providing students the experience of discipline-specific issues from new perspectives.

Community Partnerships
The North Street Clinic is supported through community partnerships that allow the clinic to fill care gaps for Marshallese patients. For example, the North Street Clinic partners with a community pharmacy located geographically near the Marshallese community. The pharmacy and the North Street Clinic have garnered charitable funding to cover the cost of prescriptions so that patients without insurance are able to access the medication prescribed. Other partners provide glucometers, testing strips, and influenza vaccination vouchers. Referrals are made to local food banks, which are working to provide healthier food options. These partnerships allow patients to access additional resources they would not otherwise be able to afford and support the North Street Clinic in its mission to provide holistic, culturally-competent, patient-centered medical care that takes into consideration the social ecology of Marshallese health and health care.

Technology Use
Technology has been integrated into North Street Clinic processes and allows faculty preceptor oversight of patient contact without unnecessary intrusion into the provider/patient experience. This is accomplished through the use of closed-circuit cameras and a central, private viewing area where preceptors can watch and listen to exams conducted by interprofessional student teams. The video is streamed to the preceptor room, but not recorded. Prior to use, patients consent to the use of closed-circuit cameras. Patients change in a separate room without cameras to ensure privacy. This has several benefits for patients, students, and preceptors. The real-time observation of patient encounters allows preceptors to intervene if necessary to ensure that patients receive the best possible care. While preceptor intervention is uncommon, the oversight makes potential problems less likely. The use of cameras also allows preceptors to take notes about the patient interaction, and discuss exam techniques, techniques for eliciting patient history, or other patient communication issues with students that would not be visible to preceptors without the technology.

Challenges
While there are many unique benefits to the structure of the North Street Clinic, there are also challenges. Focusing patient care on management of diabetes and comorbidities limits students’ exposure to other health conditions commonly seen in other primary and acute care clinics. Patients with multiple comorbidities often lack access to specialty care, which can make their care unusually challenging. Patients also face many socio-ecological challenges, hold different cultural values, and lack reliable transportation resources, which adds to the complexity of care. Despite the CHW involvement, these challenges mean that patients often miss appointments and have to be rescheduled. Since the satellite campus does not have public health or social work programs, the interprofessional team lacks public health or social work students who could expand learning opportunities and patient experiences. There are also issues with consistency and continuous clinic operations, which are based on the academic semester system and the normal rotation of students into and out of the clinic as students graduate through their programs.

Discussion
The North Street Clinic at UAMS NW provides students the opportunity to work in interprofessional teams to address the health disparities experienced by the Marshallese community. CHWs, community partnerships, and educational sessions focused on socio-ecological factors are imperative to the success of the SLFC and provide students with an expanded experience to learn about the complexities of the health care system. IPE and collaboration is integrated throughout all facets of the SLFC, and the use of technology im-
proves and enriches the patient and student provider experience. The integration of interprofessional relationships at all levels of clinic operations is made possible in part by the nature of a satellite campus. The smaller size of UAMS NW has created the need for interprofessional collaboration and partnerships to meet the stringent demands of an academic health center. This necessitated collaboration among Colleges to design and implement the SLFC. The model also allows preceptors to demonstrate the type of interprofessional collaboration that is required for future practice. Interprofessional students note that the North Street Clinic model allows them to learn from faculty and students of other professions and provides them with a better understanding of how to work with patients who have different cultures and languages.51 This description of the North Street Clinic extends the literature regarding SLFCs that serve immigrant, migrant, and refugee populations54-56 and can serve as an important model for other SLFCs that seek to integrate IPE into a free care model focused on meeting the chronic disease disparities of a unique and underserved population.

Future Plans

Future plans include expanding patient education so students place more emphasis on healthy lifestyle changes and disease prevention. This will provide an opportunity for students to develop patient education skills outside of the medical care plan. In addition, physical therapy students will soon be incorporated into the interprofessional teams, and UAMS has plans to expand the College of Public Health to the UAMS NW campus. This will provide important opportunities to further expand the interprofessional teams. UAMS NW recently began an internal medicine residency program, and the new internal medicine residency clinic will be held in the same physical space as the North Street Clinic. The internal medicine residency clinic will assist in managing the more medically complex patients in collaboration with the SLFC. The internal medicine clinic will be interprofessional, with collaboration with the Colleges of Nursing, Pharmacy, and Physical Therapy. There are plans to increase the research conducted in the clinic by interprofessional teams of faculty and students in order to provide students with greater exposure to clinical research and team science.

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References

5. Liaison Committee on Medical Education. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree. Washington, DC: Liaison Committee on Medical Education; 2015. Available from: http://lcme.org/publications/. LINK


43. LeDou C. Challenges Encountered Reaching the Marshallene in Arkansas. Arkansas Assessment Initiative; 2009 Jun 3. LINK


47. Jimeno RA. A Profile of the Marshallene Community in Arkansas, Volume 3. Little Rock, AR and Fayetteville, AR: Winthrop Rockefeller Foundation and University of Arkansas;2013. LINK


