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Descriptive Report

Establishment of an Interprofessional, Student-Led, Community-Based, Free Clinic

Lanita White, PharmD[1]; Amy Franks, PharmD[1]; Denise Ragland, PharmD[1]

[1]College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA

Corresponding Author: Lanita White, PharmD; email: lswhite@uams.edu

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Abstract

This report describes an innovative, team-based model for the development of an interprofessional, student-led, community-based, free clinic. The 12th Street Health and Wellness Center's creation was a direct collaboration of university administration, faculty from the various university colleges, students, and the community for the purpose of providing basic healthcare for the neighboring medically underserved population. Inclusion of the target community in the planning and implementation processes allowed for easy identification of neighborhood needs while providing community stakeholders a leadership role in creation and operations. Challenges in establishing the clinic are discussed including financial support, volunteer recruitment, and scheduling. Primary care services are provided by student teams from five colleges and a graduate school in a model that engages all students in interprofessional interactions throughout the patient visit. Each student team presents their assessment and plan to an interprofessional preceptor team who oversees and facilitates discussions regarding refining the diagnosis, identifying further assessment needed, and outlining the most appropriate plan. This model of patient care is embraced by students, preceptors, and patients while providing the opportunity for interprofessional education as healthcare students from several professions learn from, about, and with each other.

Introduction

Interprofessional education (IPE) and interprofessional collaboration (IPC) have long been recognized as essential practices for better patient care.[1] In 2010, the World Health Organization (WHO) defined IPE as a process when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.[2] When students learn together, they enter the workplace as members of a collaborative practice team. This is a key step in moving health systems from fragmentation to a position of strength. To advance this concept, a collaboration between six national education associations, the Interprofessional Education Collaborative, created core competencies for interprofessional collaborative practice centered around values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork.[3] Values and ethics include working with other professions to maintain a climate of mutual respect and shared values. Roles and responsibilities are demonstrated by using knowledge of an individual's own role and others' roles to assess and address healthcare needs of patients. Interprofessional communication focuses on communicating with patients, families, communities, and other healthcare professionals in a responsible manner that supports a team approach, while teamwork focuses on relationship building and the value of team dynamics to deliver safe, timely, effective, and equitable care. Together with the WHO definition of IPE and the Triple Aim as set forth by the Institute for Healthcare Improvement,[4] these core competencies became the guiding principles for development of the 12th Street Health and Wellness Center (12th St.). The ultimate goal was to create a clinic that modeled the vision embodied by our

guiding principle – an interprofessional, student-led, community-based, free clinic that fosters IPE and serves the community.

Environment and Population Served

The University of Arkansas for Medical Sciences (UAMS) is the state's only comprehensive academic health center. Its academic units consist of five colleges (health professions, medicine, nursing, pharmacy, and public health) and a graduate school. UAMS, located in Little Rock, Arkansas, is surrounded by residential communities. The community to the south is a medically underserved community whose residents lack health insurance and access to healthcare, and frequently utilize emergency department services.[5] Debilitating social factors exist including poor education, widespread poverty, and high unemployment.[5] These contribute to poor health, health disparities, increased morbidity, and premature mortality. Community members are primarily African-American (76%).[5] Additionally, uninsured Hispanic immigrants seek healthcare in the area to avoid cost-prohibitive self-pay options elsewhere.

Development of the Clinic

In 2010, a 4,000-square foot building was donated to UAMS for the expressed purpose of assisting the above described community. In response, an interprofessional, student-led, community-based clinic was created. A core group of faculty members was convened to plan and develop the financial and stakeholder support needed to launch the clinic.

Early planning included collaboration with community stakeholders to ensure community value. A Community Advisory Board (CAB) was created to provide stakeholders a leadership role in creation and operations. These individuals had vested interest in the neighborhood and ensured the clinic's services were consistent with community needs. Churches, businesses, neighborhood associations, non-profit organizations, and community centers located near the clinic were contacted for recommendations for CAB membership and invitation to monthly meetings. During initial meetings, members of the UAMS Office of Community-Based Public Health facilitated frank conversations about community concerns such as services offered, clinic sustainability, and consideration of community preferences.

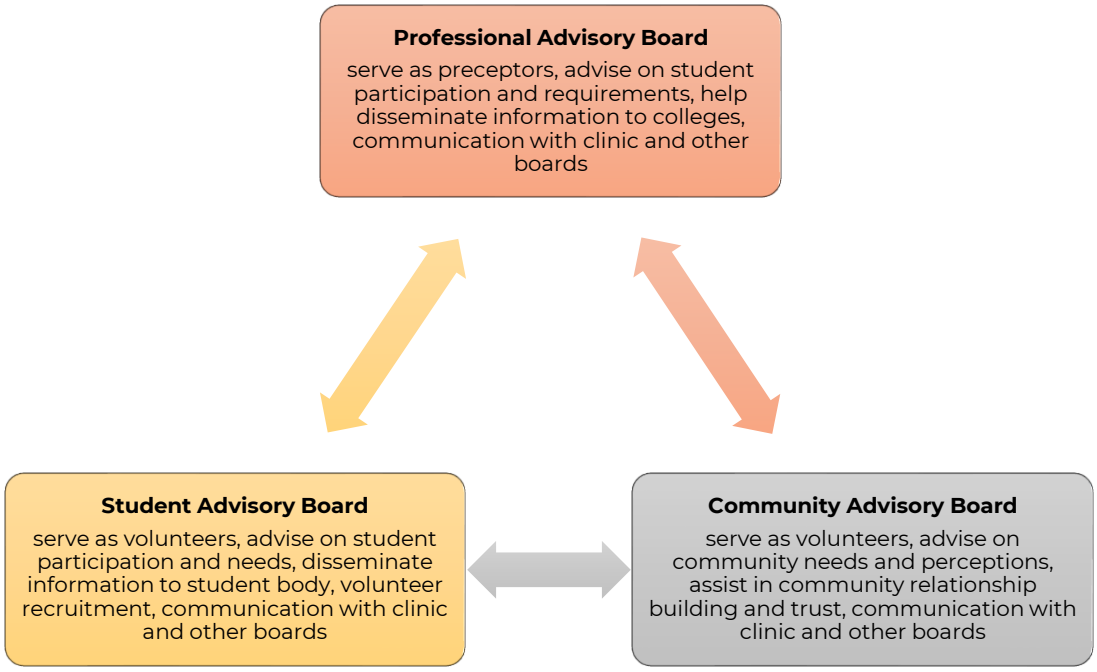
Table 1. Potential Advantages and Barriers to Clinic Faculty Participation

Advantages	Barriers
1. Provide a venue for student interprofessional education	1. Limited time and effort outside of existing faculty responsibilities
2. Increase opportunities for interprofessional collaboration	2. Conflicts with commitments to other free clinics
3. Preceptor modeling of interprofessional education principles	3. Absence of formal recognition in the promotion and tenure process for faculty
4. Provide additional healthcare to the community	

In addition to gaining community support, the planning group sought engagement of faculty and administration from all colleges on campus. Given the changing requirements in accreditation standards and increased emphasis on IPE, support was forthcoming and a Professional Advisory Board (PAB) was formed. The PAB included faculty from each college, Office of Diversity Affairs, Office of Community-Based Public Health, and campus library services. An early contribution of the PAB was to facilitate a clinic director search. The PAB also identified potential advantages and barriers to clinic participation (Table 1). Additionally, the PAB was tasked with determining educational goals, student oversight rules, and faculty scope of practice.

Student involvement was essential and remains key to clinic success. The idea for the interprofessional clinic was first presented to the campus-wide Associated Student Government (ASG) to facilitate input from the entire student body. The students enthusiastically embraced the opportunity to gain hands-on experience. The students identified priority areas for early planning: clinic hours, preceptor oversight, and services offered. ASG leadership identified students interested in the planning process and development. A Student Advisory Board (SAB) with its own

Figure 1. Relationship Between Advisory Boards



leadership structure and delegation of responsibilities was created to formalize student responsibilities and provide a direct line of communication with clinic leadership.

To ensure open communication, representatives from the CAB, PAB, and SAB attended each other's monthly meetings and cross-reported (Figure 1). The boards also determined the timing of services to allow for maximum availability to the community. The goal was to offer free clinic services at days and hours which did not conflict with other free clinics in the area. One final task of the advisory boards was to identify the clinic's mission and goals.

Community Health Needs Assessment

To assist the CAB in gaining community input during development, UAMS faculty partnered with a University of Arkansas Clinton School of Public Service student team to conduct a community health needs assessment. Following institutional review board approval, the team began a three-month cross-sectional needs assessment to learn about healthcare services available and unmet health needs. The team utilized written questionnaires and semi-structured interviews with community leaders to gather data from over 200 participants.

The needs assessment revealed access to dental services and diagnostic tests as the community's highest priority health needs. Other needs such as drug and alcohol rehabilitation services, access to safe exercise areas, and mammograms were already available in the community, but the clinic could facilitate access. Additionally, the needs assessment revealed the most significant barrier to healthcare services was lack of health insurance. These results were shared at an open forum attended by community stakeholders and UAMS administration, faculty, and students. The subsequent results report continues to serve as a guiding document for the addition of new services. Clinic leadership continues to report to the CAB with progress toward addressing the survey's identified needs. This collaborative relationship resulted in the community support and trust needed for a successful clinic.

Initial and Ongoing Funding

Gaining financial support was a significant obstacle to early development. Adding a new clinical service that does not generate revenue is challenging, especially for a state-funded academic health center. The donated physical space required substantial renovation, and the responsibility of providing education and care to a medically underserved community is costly. The College of Pharmacy agreed to fund 50% of the director's salary to launch the clinic's services. As a college faculty member, the director would also serve as a preceptor for students participating at the center. The director would oversee the final physical renovation, launch, and continued clinic operation. Accordingly, the University provided significant financial support for renovation, equipment, and supplies.

During this time, there was campus-wide adoption of a required IPE curriculum, changes to accreditation standard requirements to include IPE, and a desire to foster IPC across all hospital services. These factors further supported the clinic's development and the formation of the Office of Interprofessional Education (OIPE). Because the OIPE's goals aligned with the opportunities presented by the clinic, support from campus administration was quickly secured. The 12th St. was viewed by UAMS leadership as an educational opportunity for students and faculty and as a service to our community neighbors. Thus, it was decided that the clinic would be funded through the university's academic budget as opposed to the patient care budget. The clinic operations and portions of the director's and medical director's salaries are supported by the Office of Academic Affairs' budget. Aside from the allotted budget, the clinic relies on charitable donations, grants, and fundraisers. This allows continued IPE teaching and learning to occur year-round.

Opening the Clinic

The clinic opened in January 2013 with the mission to improve access to healthcare through student-led, interprofessional health and wellness services. Its goals were to (1) prevent and improve chronic health conditions, (2) provide health- and disease-related education, (3) promote health literacy, (4) foster interprofessional education in a community setting, (5) facilitate collaborative practice skills among future healthcare practitioners, and (6) promote respect for cultural differences. Initially, the clinic opened two days a week (8 hours/week) with limited services focusing on chronic disease screenings and education, which relate to the community's highest-priority health needs.

Table 2. Professions Participating in 12th St.

College	Program	Year in Program
Health Professions	Audiology	1-2
Health Professions	Dietetics	1-2
Health Professions	Dental Hygiene	1-2
Health Professions	Doctor of Dental Surgery	4th year*
Health Professions	Medical Laboratory Science	1-2
Health Professions	Physician Assistant	1-3
Medicine	Doctor of Medicine	1-4
Nursing	Bachelor of Science in Nursing	1-2
Nursing	Masters in Nursing	1-2
Nursing	Doctor of Nursing Practice	1-2
Pharmacy	Doctor of Pharmacy	1-4
Public Health	Masters in Public Health	All
Public Health	Masters in Health Administration	All
Graduate School	Various Programs	All

**Currently, there is not a dental school at the University of Arkansas for Medical Sciences (UAMS) and University of Tennessee (UT) at Memphis is the closest. Dental students from UT complete 4th year rotations at UAMS and our clinic has been added as one of the sites during their UAMS rotation.*

An open invitation to participate was made to all students and faculty. Originally, students from five programs participated: audiology, medicine, nursing, pharmacy, and speech pathology. Additional programs later joined as faculty determined how and when their students could contribute (Table 2).

Patient care visits utilize an interprofessional student team model. The teams vary in composition depending on the professions present during the night. Typically, teams of 3-4 students conduct entire patient visits. Teams begin with a pre-visit huddle to plan which students will

perform the needed tasks. Students are given autonomy to have these discussions in their team and have embraced stepping outside of typical responsibilities to perform other duties within their scope of practice; e.g., student pharmacists measuring vital signs and student nurses taking medication histories. Once a student team has completed a visit and has agreed on an assessment and plan, they present their patient to an interprofessional preceptor team. Preceptors assist students in refining diagnoses, identifying further assessment needed, and outlining the most appropriate plan.

After the first 6 months of primarily providing health screenings and education, the center's focus evolved to providing basic primary care clinical services. This change resulted from patients who presented in need of primary care services. The transition, however, presented additional challenges. First, additional funding and resources, such as lab and medical equipment, were secured. Second, a system for more extensive medical record keeping was identified. Third, a physical rearrangement of the existing space was done to facilitate patient care. Finally, the focus on primary care and chronic disease management necessitated policies and procedures for medication prescribing. To address this final obstacle, a physician preceptor was recruited to serve as the center's medical director. This dedicated, licensed physician preceptor (25% full-time equivalent) writes prescriptions when needed. These changes allowed the clinic to address one of community's highest priority requests to provide more complete patient care while increasing interprofessional experiences for students and preceptors.

At 12th St., the population served is 50% Hispanic and Spanish-speaking, 30% African American, 15% Caucasian, and 5% other. The Spanish-speaking population increased from approximately 20% to 50% following the implementation of the Affordable Care Act (ACA). During the open enrollment period for the ACA, the majority of the African American and Caucasian patients obtained health insurance through the exchange system or Arkansas's expanded Medicaid option. This created openings in the clinic and in the 2-3 months following ACA implementation, the Hispanic, uninsured population increased. With the current patient population, basic primary care services including wellness checks and management of chronic diseases are provided. In addition, the clinic has a 2-chair dental clinic where student teams perform dental hygiene or basic dental services (cleanings and uncomplicated extractions). The clinic also provides urgent care for issues such as cough, colds, acute pain, etc. and all emergent care is referred to the hospital's emergency department. The most common chronic diseases managed are hypertension (30% of patient population), diabetes (35%), depression (20%), and musculoskeletal pain due to laborious working conditions (20%). Most patients have multiple chronic diseases managed by the clinic.

Discussion

The 12th St. represents an innovative model for an interprofessional, student-led, community-based free clinic. From its creation, the clinic was a collaboration between the university administration, faculty, students, and the neighboring community. Its focus on primary care and improved overall health provides a unique interprofessional practice opportunity for students at UAMS.

Both students and preceptors have embraced working in interprofessional teams, but facilitating team interactions with patients and each other took practice. While each student had a good understanding of their own profession's strengths and typical patient care role, participation in this IPE-based clinic required both students and faculty to dispel these norms and work as a cohesive team throughout the patient visit. Discussions among students and preceptors continue to be rich and engaging and differ from the conversations students typically have when they are presenting to a preceptor of the same discipline. Preceptors have expressed an appreciation for the student learning aspect of the model, the continuous professional development, and insight sharing among the preceptor team. The atmosphere is a learning environment where students are encouraged to confer with the preceptors, look up unknown information, and ask questions. These interactions have been one of the most appealing aspects for the volunteer preceptors.

The clinic creation was not without challenges, especially ensuring attendance of each discipline's preceptors. To assist with this, a dedicated member of the SAB was charged with preceptor recruitment and scheduling. PAB members also act as faculty champions for recruitment. Volunteer hours and credentialing for students and faculty are tracked using an online volunteer management system (Volgistics) that identifies scheduling gaps, tracks hours, and sends reminders. This system also houses licensure information for professional volunteers.

Another challenge was determining patient flow during clinic. A SAB member is assigned as "director on duty" each clinic night. This student coordinates patient flow from check-in to check-out. Because of our interprofessional team model, patient care visits last longer than typical single-provider visits. We continue to seek ways to streamline processes and decrease visit time from the current average of 75 minutes.

We have had many successes in four and a half years. Importantly, support from the University's Chancellor, Provost, and Academic Deans allowed us to make bold moves such as increasing from one to two weekly clinic evenings, increasing dental services, and receiving external grant funds. Because campus leadership deemed IPE a high priority, we can provide a venue for patient-care-based IPE activities for students.

The 12th St. clinic models how to make a clinic truly interprofessional. Through our partnership with administration, students, faculty, and the community, we have been able to grow and expand services. Our fully interprofessional visits and interprofessional precepting have been rewarding for students and faculty. Most importantly, our patients understand and appreciate the team approach. Services continue to improve and expand, but the primary educational mission remains to ensure students are learning about, from, and with each other as they work to improve population health and care for the patients in the community.

Disclosures

The authors have no conflicts of interest to disclose.

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