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Interprofessional Student Hotspotting Project

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Background: IPE and Practice-based Learning

It is well established that there is a need for Interprofessional Education (IPE) in the current landscape of health education¹ and students that participate in IPE enjoy these experiences and develop skills in interprofessional teamwork that prepare them for future team-based practice.^{2,3,4} IPE, however, is not standardized. It ranges from programs that teach theoretical frameworks in a classroom setting to others that allow interprofessional teams of students to work together in a clinical setting.^{5,6} The second form is referred to as practice-based learning (PrBL).³ PrBL is now considered by experts as one of the most effective teaching methods.^{3,6} Unfortunately, due to the lack of consistency of IPE programs and the lack of standardization in IPE research, there is inconsistency in data regarding the best IPE method.^{6,7}

Camden Coalition and the Hotspotting Learning Collaborative

An interprofessional team of Jefferson students participated in a six-month pilot learning collaborative, called “hotspotting,” funded by a grant from the Camden Coalition of Healthcare Providers (CCHP) in conjunction with the Association of American Medical Colleges (AAMC) and Primary Care Progress (PCP). This project educated teams of students from multiple disciplines across the country about the gaps in the US healthcare system by focusing on the care of high-utilizing patients (“super-utilizers”). Super-utilizers have been defined as individuals who have at least six emergency room visits and/or at least three inpatient hospital stays in a two-year timeframe.⁸ They typically face medical challenges as well as social barriers that keep them from getting the care they need in a very complex and fragmented healthcare environment.⁹ Super-utilizers represent a small segment of the US population but account for the largest amount of healthcare costs. For example, the top 5% of highest utilizers account for nearly 50% of healthcare spending, and the top 1% account for more than 20% of overall healthcare costs.¹⁰ As a result, CCHP targeted super-utilizers in the hotspotting initiative with the aim of better addressing patient needs and improving care quality while reducing costs. Focusing on patients with extreme patterns of high utilization can help reveal the shortcomings of healthcare and direct healthcare transformation.¹¹ The purpose of this article is to describe the Jefferson team’s experience in this pilot IPE project.

Intervention

A CCHP committee selected the Jefferson student team along with nine other teams across the country out of an applicant pool of more than fifty universities. Jefferson’s team consisted of six students from the following disciplines: medicine, occupational therapy, nursing/nurse practitioner, pharmacy, and couple and family therapy. Most students were in their final year of

school and were nominated by faculty members in their respective disciplines. Patients who enrolled in the hotspotting program voluntarily signed waiver forms, approved by Jefferson's legal and public relations teams, which authorized the team's access to patients' medical records and gave permission to share and publicize patients' narratives. This project did not involve data collection for study purposes.

The project began with a webinar in May 2014 that explained the overall timeline and the topics to be covered in monthly webinars during the collaborative. The Jefferson team members met each other and their faculty advisors and began a team-building process. This included establishing rules for communication and documentation, and determining the team's goals. Member roles were created and assigned, including team contact person, secretary, faculty liaison, and community liaison. The students created a list of criteria to facilitate identification of appropriate patients through community and faculty contacts. However, meeting criteria was not required for enrollment. Such criteria included the following qualities: at least two hospitalizations in the past six months; a minimum of two chronic illnesses; more than one social concern (e.g., lacking support, poverty); age over eighteen; and openness/willingness to change. The CCHP recommended avoiding enrollment of patients with active substance abuse, active psychosis, severe mental health diagnoses, significant cognitive impairment or on hospice, as these issues may be less amenable to the students' interventions.

The recruitment process presented the students with their first challenge due to the lack of systems in place for identifying high-utilizing patients in the University's hospital in real time. Administrative data that included lists of high-utilizing patients were generally six months old and therefore, less useful for outreach in the hospital setting. Clinicians in the Department of Family and Community Medicine referred high-utilizing patients to the hotspotting team. Additionally, reaching out to residents in Family Medicine at Jefferson proved helpful, as they had an ongoing list of patients who were frequently admitted to their inpatient service. If one such patient was admitted to the hospital, the residents would explain the program to the patient, obtain patient permission to contact the hotspotting team, and email the team contact person. Two student representatives would then meet the patient for the first time while still in the hospital, discuss the program, and schedule a follow-up meeting either in the hospital or at home once the patient was discharged. The team would then compile de-identified utilization data and past medical history from Jefferson's EMR to create a patient profile, using password-protected computers and University email accounts. Experts in the field presented monthly webinars ("Getting Started with Hotspotting," "Engaging Patients outside the Hospital," "Motivational Interviewing," "Sharing Patient Stories"). Further support was available through monthly conference calls where the teams presented progress updates and challenges, while receiving feedback and advice from experts and peers.

Throughout the six-month intervention, the Jefferson team engaged five high-utilizing patients, and met with them in a variety of settings including the hospital, outpatient appointments, and patient homes. The students did not provide health care, but met with patients to listen to their stories and provide support. They helped patients identify their own goals and assisted them in navigating through medical and social systems to achieve those goals.

The Jefferson team utilized CCHP's model for transitioning and graduating patients. Transitioning consisted of communicating about the project with the patient's PCP so that newly established behaviors and protocols could be sustained. Graduation was an informal celebration of the patient's accomplishments. At the end of the intervention, the Jefferson team transitioned all five of their patients, and graduated one patient. The project culminated with a presentation to the Jefferson community and a full-day symposium with representatives from the ten student teams. The Jefferson student team has served in an advisory role to expand the program at TJUH, and is helping to design the recruitment methods for students and patients, the curriculum, and the timeline for the project.

Conclusions

It is necessary in the current healthcare climate that students receive IPE in order to practice team-based care in the future.^{1,3} While there is not a standard curriculum, it has been established that PrBL is one of the most effective methods to impart IPE competencies.^{3,6} This pilot program is a prototype of IPE that applies the principles of PrBL.³ CCHP is in the process of performing a qualitative analysis of students' experiences and changes in knowledge and attitudes in regards to interprofessional teamwork. Unfortunately, this program was not initiated with a standardized evaluation. While the students felt that it was a novel and successful program, it is not yet clear whether and how it impacted their knowledge and skills, nor how it will impact future practice. Future evaluations should include a more robust pre-and post- and possibly longitudinal assessment to better evaluate the program's effect.

As the project concluded, the team identified the following lessons learned regarding implementation of their pilot project, which will impact future iterations. 1) The project must have a strong foundation of institutional buy-in and support from faculty members with experience in IPE. 2) It is beneficial to have protected time, access to claims data for high-utilizer patients, and institutional support to assist with patient referrals. 3) Team building and introductory course-work help to solidify the team and clarify roles and expectations. 4) There should be an online platform and standardized communication tools that facilitate team interaction with one another, their faculty advisors, and participants in other states. 5) It is preferable to recruit students in their final year of health professional school because they have experience working with patients in clinics and the hospital. They should be selected based on faculty recommendations and be both community-engaged and volunteer-oriented. 6) There should be broad representation from various fields. In conclusion, the students learned to work together with a variety of health professions, and use a patient-centered approach to care.

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