Collaboration Versus Competition: An Interprofessional Education Experience
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BACKGROUND AND OBJECTIVES: Our purpose was to assess student, preceptor, and patient satisfaction with a phased pilot project to introduce interprofessional education teams into a clinical setting.

METHODS: Focus groups with students and preceptors were used to evaluate acceptability with interprofessional education teams. We assessed pairings of second-year physician assistant students (PAS2) with both first- and second-year medical students (MS1, MS2) for three to eight clinic sessions in a university-based primary care clinic, over a period of 2 years.

RESULTS: Twenty students and seven preceptors participated in paired clinical placement. All students agreed that the pairing was helpful for their learning. MS felt that they benefitted from the clinical experience of the PAS, whereas PAS felt that MS brought depth of information from their didactic learning. All students wished that the clinic sessions could have been more frequent. Preceptors did not feel precepting two students was more burdensome than precepting one student but did feel it was important to choose appropriate students who were interested in working together and teaching each other. Preceptors felt that the MS2/PAS2 pairing was optimal.

CONCLUSIONS: Students and preceptors were all satisfied with interprofessional teams in the clinical setting. This model provides one solution to the dilemma of multiple learners requiring training in a limited number of clinical placement sites.

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Patient care requires a collaborative approach, and interprofessional education (IPE) trains health care students to work as part of a professional team.1 Historically, health care education has emphasized independent clinical experience, which has translated to isolated clinical practice. The Josiah Macy Jr. Foundation describes IPE’s importance, “This work [interprofessional education] is based on the belief that health care professionals who learn about, from, and with each other will be more likely to develop the competencies needed to work effectively together to care for patients and communities.”2

Multiple studies demonstrate student benefits of IPE and their improved attitudes toward interprofessional health care teams.3-7 The University of Utah Health Sciences Center (HSC) trains medical, physician assistant, nursing, pharmacy, social work, and physical, occupational, and speech therapy students using IPE. Recent curriculum changes placed medical students (MS) in primary care clinics during their preclinical years, displacing physician assistant students (PAS) and increasing competition between PAS and MS for preceptors. HSC researchers developed a team teaching model to meet students’ educational needs and to allow preceptors to simultaneously engage multiple trainees.

To improve preceptors’ ability to manage multiple learners and increase student access to clinical placements, a pilot project paired MS and PAS in a clinical team. Project objectives included increasing student understanding of health care professional collaboration to improve quality care for patients and professional roles in an efficient team.

Methods
The IPE Experience was implemented April 2011–November 2012 (approved by University of Utah IRB #58047). All students were placed at university-based community clinics, and primary care preceptors were recruited through these outpatient clinics. The first year of the pilot assessed benefits, barriers, and feasibility of pairing first-year medical students (MS1) with second-year physician assistant students (PAS2) for two to three clinic sessions.
sessions. Preceptor-supervised student teams worked together and alternated the roles of performing and documenting a physical exam/history in the electronic medical record (EMR). Together, students presented the patient to the preceptor, discussed the assessment, and then finished the patient encounter with the preceptor. The PAS2 worked with the preceptor 40 hours/week, and the MS1 was paired twice per month with the same PAS2 for a half day of clinic.

After receiving positive responses from students and preceptors, researchers continued with Phase I of the longitudinal project from January–April 2012, during which student teams completed three to four sessions at one clinic. During Phase II of the longitudinal project (August–November 2012), PAS2 and second-year medical students (MS2) worked in teams at two clinics for 6–7 half-day sessions. Table 1 shows types of participants involved and data collected in the IPE experience.

Students attended an orientation and completed a pre-participation attitudinal survey. Preceptors were individually oriented to project goals and objectives prior to MS starting at the clinic. At the completion of the IPE, separate debriefings were conducted with PAS, MS, and preceptors. The student groups answered questions from a prepared list and repeated the attitudinal survey, while preceptor debriefings were less structured. Individual responses were summarized using thematic analysis, and the summaries were shared with educational leaders to protect the anonymity of individual responses.

**Results**

During the pilot, preceptors felt they guided students more efficiently because PAS2 taught MS1, giving basic advice and allowing preceptors to give more specialized feedback. The preceptors suggested assessing how IPE affects patients.

During the Phase II debriefing, all six students and both preceptors generally responded positively. Certain themes emerged in all three debriefing sessions. Figure 1 illustrates the themes and their discussion frequency in student groups compared to the faculty. Students predominantly talked about the relationship between the PAS and MS, comparing levels of training and ability to take the lead on tasks. Preceptors focused on structural components of the experience and ways to optimize the experience (see Figure 2).

All four MS and two PAS who participated in the Phase II IPE experience completed an attitudinal survey before and after the experience (100% response rate). The pre/post comparison showed a statistically significant improvement in the median score (4=agree improved to 5=strongly agree) for a question about understanding the role of the other student; the medical student respondents drove this difference. There was no difference in the pre/post comparison about the benefits of IPE (both medians were 5=strongly agree). These students also felt that IPE training benefitted their educational experience and improved patient care. Five students felt IPE training improved their clinical skills and patient outcomes.

**Discussion**

Students and preceptors reported a positive experience with IPE and identified project strengths as inter-student team learning and comparable precepting efficiency. A frustrating feature of IPE was that MS scheduling around class time limited the number of IPE team sessions; both students and preceptors felt that more sessions would be beneficial.

As medicine emphasizes collaborative clinical care, student training should be increasingly team based. Currently, most team-based education occurs in a simulated setting. While a simulated setting allows multiple team member involvement,
students may not be as invested as they would be with an actual patient. Patient satisfaction surveys of the care provided during this visit with a student pair showed good patient acceptability of the pairing (data not shown), although comparison satisfaction data with non-student paired visits was not obtained. Our research demonstrates the practicality of implementing IPE in a clinical setting and an effective way to train more students with the same number of preceptors.

The small number of students and sessions of our project makes it difficult to comment on the “ideal” student pairing. However, PAS felt that having a more senior PAS was necessary when the MS1 were team members because of their limited clinical experience at that point in their training. Preceptors and students responded positively when both students were in their second year. We recommend selecting adaptable students who are interested in team-based care and have strong peer-to-peer teaching skills. As we move forward with this project, we are expanding the number of participating clinics and students. The pairings we have described provide students an efficient and beneficial exposure to team-based care. Further research may explore the efficacy of IPE in non-primary care settings, the impact of student pairings on patient satisfaction, student and preceptor qualities that contribute to the success of IPE, and the ideal type of student pairing.

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