Objectives:

1. Discuss opportunities for developing IPE community engagement.
2. Develop IPE clinical training teams in a variety of settings.
3. Improve patient outcomes through IPE activities.

Project Team:

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Schools:

School of Pharmacy
School of Dentistry
School of Nursing
School of Pharmacy Faculty Preceptors:
Background:
• Interprofessional Collaborative Practice (IPCP)
• Extending classroom IPE experiences at two primary care urban community clinics (Community-based and Federally funded health center)
• Semester long rotations
• Students gained advanced knowledge/skills caring for vulnerable populations—high numbers of immigrant and refugees

Methods: Students and Providers
• Readiness for Interprofessional Learning Scale – pre-clinical
• Interprofessional Collaboration Scale – post-clinical
• Attitudes Toward Health Care Teams Scale – pre/post
• Team Skills Scale – pre/post
• Cultural Competence Assessment – pre/post
• Focus groups - post

Methods:
• Students completed pre/post surveys
• IP healthcare teams of Advanced Practice Nursing, PharmD and Dental students
• Cultural Competence Assessment (Chen et al., 2006)
• 44-item scale that assesses students’ cultural competence attitudes and behaviors
**Slide 7**

Preliminary results: After 6 semester rotations:
N=84
- 12 NP students
- 56 Pharmacy students
- 16 Dental students
- 52 females, 32 males
- 84.5% White, 8.3% Black, 10.7% Asian, 4.8% American Indian
- 28 years old (mean, 22-49 range)
- 4.10 days (mean, 1-37 range) on rotation

**Slide 8**

Results:
Cultural Competence Behavior Subscale
- Rating of how often students perform 10 behaviors related to culturally competent care on a scale from 1 = Never to 7 = Always
- Students: n = 84

![Bar chart showing significant increase in culturally competent behaviors](chart)

Students reported a significant increase in culturally competent behaviors ($t = -5.33, p < .000$)

**Slide 9**

Results:
Special Populations Subscale
- Experience with special populations (e.g., mentally or emotionally ill, physically challenged/disabled, homeless/housing insecure, substance abusers/alcoholics, gay/lesbian/bisexual/transgender, different religious/spiritual backgrounds)
- Students: n = 84

![Bar chart showing significant increase in work with special populations](chart)

Students reported a significant increase in work with special populations ($t = -2.65, p < .01$)
Slide 10

Results:

• Cultural Competence Assessment (Shim et al., 2004)
• From pre- to post-rotation: students reported a significant increase in overall perceptions of competence in “working with people who are from cultures different than your own.”
• Students reported a significant increase in experiences with diverse populations.
• Students reported a significant increase in the frequency with which they performed cultural competence behaviors.

Slide 11

Discussion:

• Students made more informed care decisions regarding vulnerable patient populations
• Students reported an increase in cultural competency across several areas: attitudes, experiences, behaviors

Slide 12

Discussion:

• Students gained new perspectives regarding caring for vulnerable patient populations
• Increased interactions across professions (nursing, dentistry, and pharmacy) with these patient populations illustrated the importance of working within IPCP teams
• Students felt better prepared to become future leaders in the healthcare arena
### Slide 13

**Results – patients seen – Clinic 1**

Small, young community-based health center:
- NP students, Pharmacy students, Dental students
- 1,257 patients seen (65% female; 0 - 90+ yrs)

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**Most Frequent Diagnoses**

- Essential Hypertension: 178
- Diabetes Mellitus: 118
- General medical exam: 114
- Disorders of Lipid Metabolism: 77
- Overweight and Obesity: 74
- Health supervision infant/child: 57

### Slide 14

**Results – patients seen – Clinic 2**

Large, urban federally-qualified healthcare center:
- NP students, Pharmacy students
- 2,254 patients seen (75% female; 0 - 90+ yrs)

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**Most Frequent Diagnoses**

- Normal Pregnancy: 361
- Essential Hypertension: 264
- Screening Malignant Neoplasm: 251
- Diabetes Mellitus: 244
- General Medical Examination: 186
- Health supervision infant/child: 173
- Contraceptive Management: 160
- Disorders of Lipid Metabolism: 145

### Slide 15

**Student Feedback**

Conducted focus group after each rotation (Four total):
- "Sometimes they just need someone to listen to them. Sometimes it's they didn't know how to take their medicine or they were taking it at the wrong time and they just had no idea in this population. ... a way that they understand that only is it difficult to counsel an English speaking patient on their condition, but now you're not only crossing the medical to lay person barrier, you're now crossing a language barrier. And so you really have to get creative with how you explain things and deliver things. And it was really great to bounce ideas off of all the other students in the room because you know, you're not providing care alone. You're providing care as a team. So having those resources was a good support I thought."
Slide 16

Student Feedback

• "It...in underserved communities, it just makes you realize the importance that you need a lot more disciplines in a clinic setting just because of all the different needs. And it would be so nice if we could all be together with social work and dentists.

• "I talk to underserved patients...the limited knowledge they have about dentistry and oral health. About different things mean and...how that affects their health, and how even when specifically like a toothache, they'll go to the emergency room or a doctor instead of going to the dentist and learning about that.

• "...maybe you know the frequency of visits because of lack of education about basic things like weight loss, ...maybe just need compounded visits to absorb the information and gain that extra coaching to be successful."

Slide 17

Student Feedback

• "I think it depends also on the group of people too. I remember at Sam Rodgers, they have a large Hispanic population and it seemed like the more people that had white coats, the better they felt. They felt so cared for. Whereas you get other populations that are more sketchy.

• "We had that same barrier even without the language or ethnicity barrier. We had people who would jump in and out of ER and we couldn't figure out why. And it's because they didn't have the opportunity to explain the purpose of why they were diagnosed with this and why they were taking it. I thought that once they were done, they were done, but they end up right back in the ER.

Most of the time the provider will give a prescription, they come to a pharmacy fail, and don't fill it, they don't go back to the doctor, they don't get the information. But to get that knocked out in one setting would be very helpful."

Slide 18

Student Feedback

• "...before I started with the NP at Samuel Rodgers and she said this is this...largest populations, not even close to like them and you get involved with them. And they really like you to be involved, which is why I really did prepare and I made a lot of home city African Americans in the ER work at our was familiar with that. But when I went to Samuel Rodgers, working with Sudans, Somali, and Burmese and all, it was an eye opener for me. To kind of get more involved, it's a little bit of a different knowledge, lifestyle...

• "Working with the underserved population, you really do find out how much education and stressing management, renew system...is important, as well as being involved with prevention versus retrospective. When they've come into a clinic, they've often already been close and sometimes, they just don't know that until it's too late."
Student Feedback

• “On top of that, just having people seek healthcare because they want to take care of themselves, but aren’t able to afford it. We’re taught guidelines... if they have this, this is what they should get. But being able to discuss with their provider and adjust that based on what they can afford. That’s been a huge barrier to be able to overcome to personalize a patient’s plan.”

• “The complexity of the problems that the patient brings in underserved areas. I’ve worked in other areas where patients just come more often and more regular, so their complexity, at the initial visit isn’t as large. Because these patients have waited and waited until they can’t anymore. They make the appointment... I’m compounded by the multiple issues that they’re dealing with. The provider feels they don’t have the time to address all the issues.”

Results:

• Team informed care decisions
• Acquiring new perspectives regarding vulnerable patient populations
• Improved communication through interactions with team members
• Opportunities to serve as change agents within own professions

Results:

• Instilled confidence in challenging situations
• Overcoming preconceived assumptions
• Established a platform for open and honest communication
• Integral to team socialization
• Impacted health delivery and desired outcomes
Conclusions:
- Project ongoing in the community
- Outcomes guiding IPE curriculum development
- Challenges regarding scheduling
- Smaller clinical teams advantageous for team cohesiveness
- Flexibility paramount

Recommendations:
- Create community partnerships in advance
- Students work with the same interprofessional team members
- Semester-long rotation minimum
- Provide routine meetings for feedback and communication between students, faculty, and clinical preceptors
- Flexibility paramount

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