

University of Missouri-Kansas City

Utilizing Student Outcome Data from a Three Year Interprofessional Clinical Practice Team Grant to Develop Effective Nursing Leadership Education



University of Missouri-Kansas City

Bridging the Disparities Gap: Strengthening Community-based Healthcare Delivery in an Urban Setting



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This project was funded by a Health Resources and Services Administration

Nurse Education, Practice, Quality, and Retention:
Interprofessional Collaborative Practice grant



Objectives:

- 1. Develop pre-clinical didactic modules for students in an IPE clinical setting.
- 2. Discuss project surveys and methods as applicable to other IPE projects.
- 3. Identify the need for continual evaluation regarding the effectiveness of an IPCP rotation.

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Background:

- Interprofessional Collaborative Practice (IPCP)
- Extending classroom IPE experiences at two primary care urban community clinics (Community based and Federally funded health center)
- Students gained advanced knowledge/skills caring for vulnerable populations-high numbers of immigrant and refugees

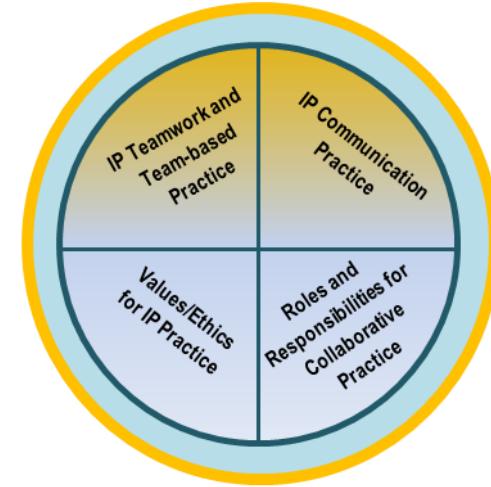
Background:

- First clinically based IPE activity at UMKC
- Focused on nurse leadership (NEPQR grant)
- Develop patient focused team based care
- IP healthcare teams of Advanced Practice Nursing, PharmD and Dental students
 - NP and MD preceptors
 - Semester long rotations

Methods: Students and Providers

- Pre-clinical modules focused on four IPE goals:
 - roles/responsibility
 - values/ethics
 - IP communication
 - teams/teamwork
 - plus diversity

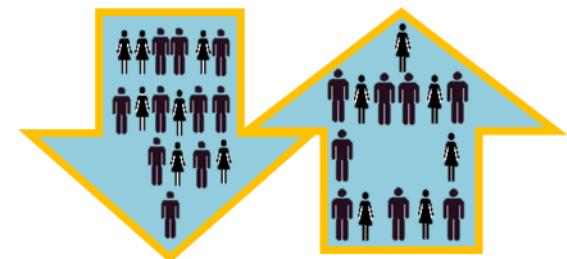
(IPE Expert Panel Report, 2011)



- Emphasis on working with vulnerable populations

Methods: Students and Providers

- Incorporating team based primary care
 - collaborating with two urban clinics
- Team focused education prior to clinical placement
 - emphasis on patient centered care of vulnerable populations
 - special populations and cultures
- Student skills and expertise based on professional roles regarding patient assessment



Methods: Students and Providers

- Readiness for Interprofessional Learning Scale – pre-clinical
 - (McFadyen et al., 2006)
- Interprofessional Collaboration Scale – post-clinical
 - (Kenaszchuk et al., 2010)
- Attitudes Toward Health Care Teams Scale – pre/post
 - (Heinemann, et al., 1999)
- Team Skills Scale – pre/post
 - (Hepburn, Tsukuda, & Fasser, 1998)
- Cultural Competence Assessment – pre/post
 - (Schim, et al., 2004)

Methods:

- Focus groups – post rotations
 - Students and providers
- Students completed pre/post surveys
- Clinical huddles
- Case presentations



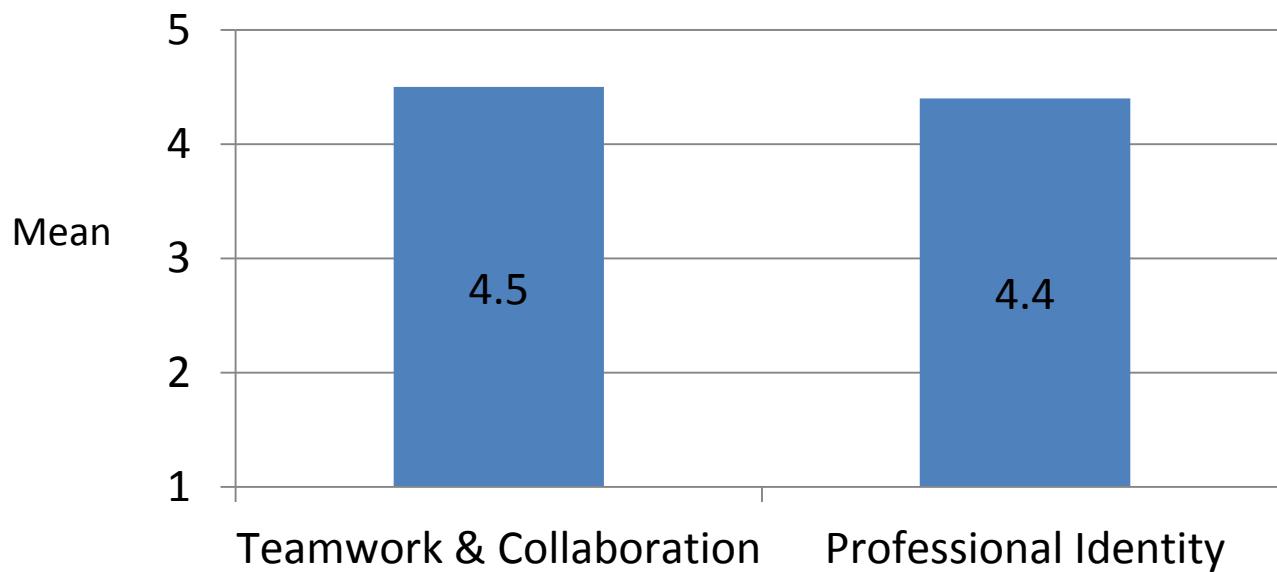
Final after 7 semester rotations: N=84 (5 groups)

- 12 NP students
- 56 Pharmacy students
- 16 Dental students
- 52 females, 32 males
- 1.2% Hispanic/Latino/a; 85.5% White, 9.0% African-American/African, 11.4% Asian, 5.1% American Indian
- 28 years old (mean, 22-49 range)
- 4.10 days (mean, 1-37 range) on rotation

Methods

Results – students (n=82)

- *Readiness for Interprofessional Learning Scale* (McFadyen et al., 2005)
 - 19 items, 1 = strongly disagree to 5 = strongly agree
 - Administered at baseline

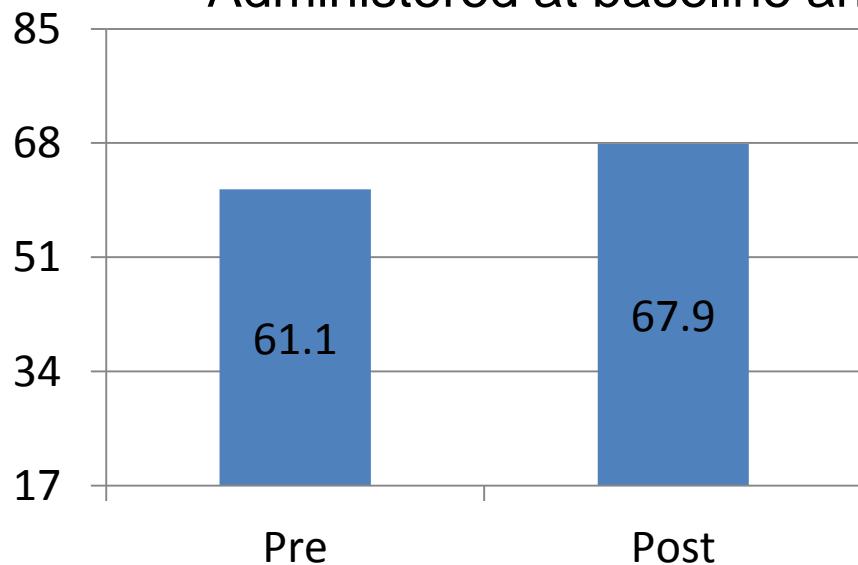


Students showed very high readiness to participate on IPCP teams, and a very high level of openness to learn from/with other students.

Methods

Results – students (n=60)

- *Team Skills Scale* (Hepburn, Tsukuda, & Fasser, 1998)
 - Assesses team members' perceptions of their own skills
 - 17 items rated on 5 pt scale, 1=Poor, 2=Fair, 3=Good, 4=Very Good, and 5=Excellent (possible range 17 – 85)
 - Administered at baseline and end of rotation

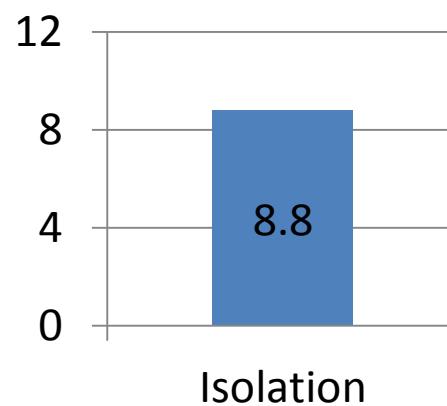
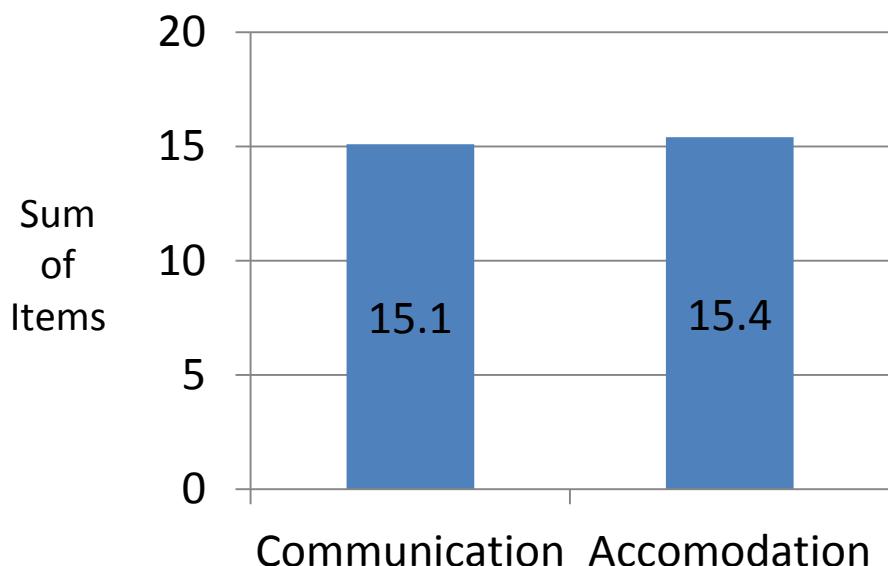


Students reported significant increase in perceived team skills ($t = 4.25, p = .000$)

Methods

Results – students (n=64)

- *Interprofessional Collaboration Scale* (Kenaszchuk et al., 2010)
 - 14 items, 1 = strongly disagree to 4 = strongly agree
 - Administered at end of rotation



Students reported high levels of communication among team members, high cooperation and collaboration, and high levels of affiliation with other professionals (higher is better on Isolation scale).

Methods

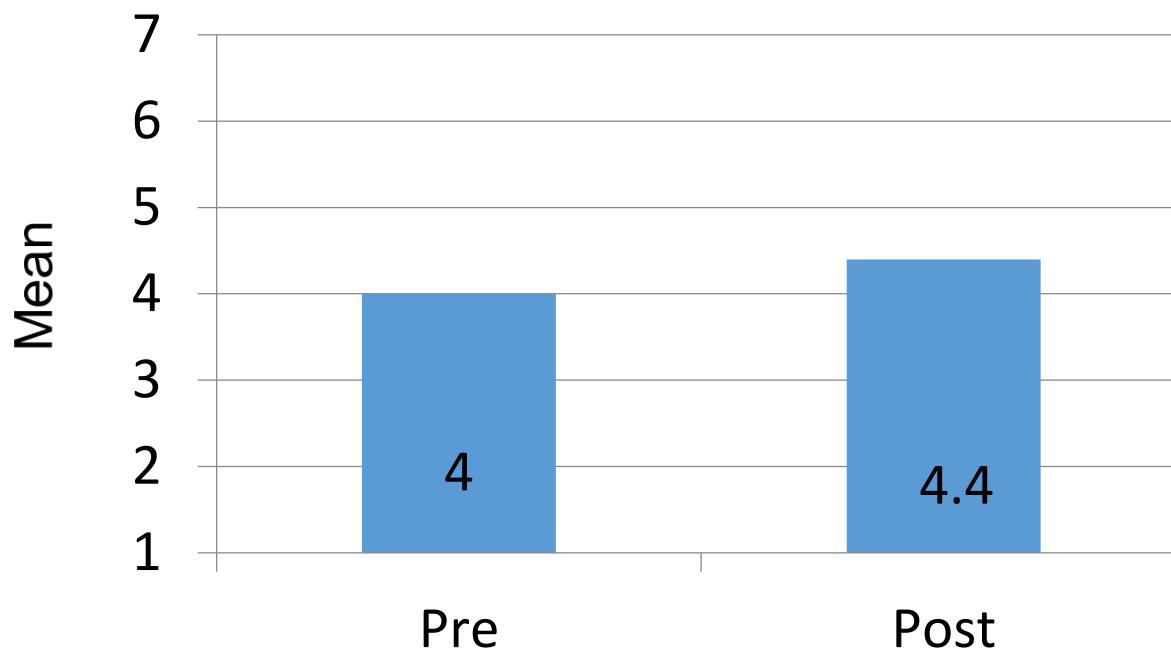
Results – students

- *Attitudes Toward Health Care Teams Scale* (ATHCT; Heinemann et al., 1999; Kenaszchuk, 2010)
 - 21 items scored on a 6 pt. scale of Strongly Disagree, Moderately Disagree, Somewhat Disagree, Somewhat Agree, Moderately Agree, Strongly Agree.
 - Others reported 3 subscales: (e.g., Kenaszchuk 2010):
 - Team Values
 - Team Efficiency
 - Shared Leadership
 - Administered at baseline and end of rotation
 - There were no significant changes from baseline to end of rotation on any of these scales

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 = 59



Students reported a significant increase in culturally competent behaviors
($t = 2.95, p = .005$)

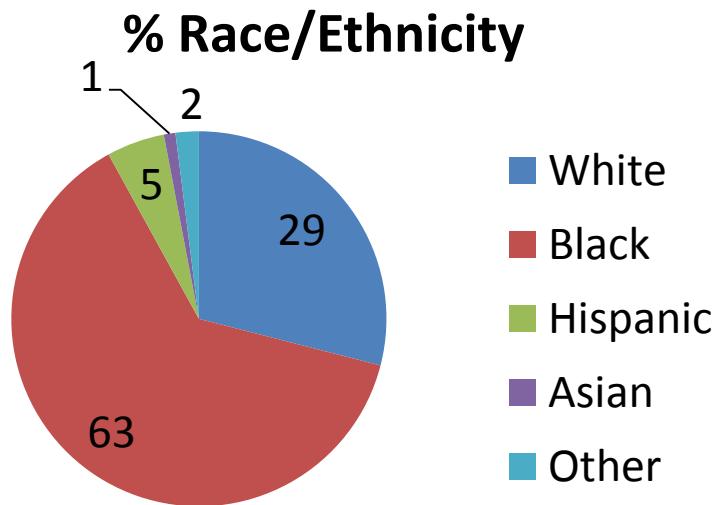
Results of student surveys

- Students showed:
 - Very high readiness to participate on IPCP teams, and openness to learn from/with other students
 - Significant increase in perceived team skills from pre-to post-rotation
 - High levels of communication among team members, high cooperation and collaboration, and high levels of affiliation with other professionals
 - No changes from pre- to post-rotation on Team Values, Team Efficiency, or Shared Leadership
 - A significant increase in the frequency with which they performed cultural competence behaviors.

Results – patients seen – Clinic 1

Small, young community-based health center:

- NP students, Pharmacy students, Dental students
- 1,418 patients seen (66% female; 0 - 90+ yrs)



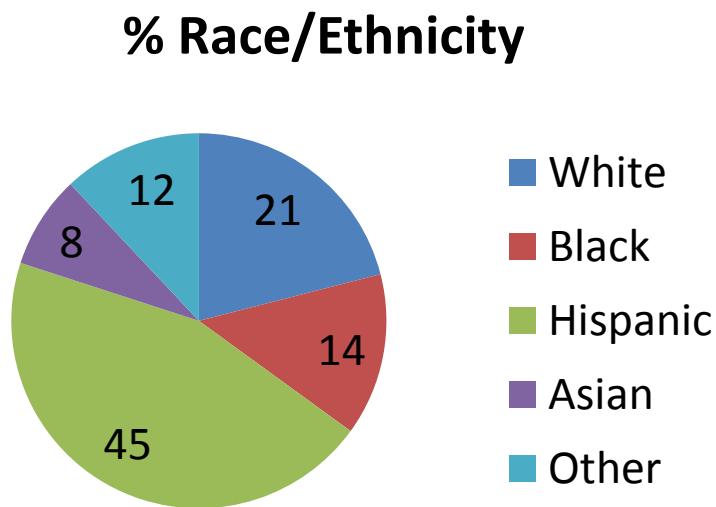
Most Frequent Diagnoses

- 181 – Essential Hypertension
- 153 – Neurotic Disorders
- 124 – Diabetes Mellitus
- 139 – General medical exam
- 118 – Affective Psychoses
- 89 – Health supervision infant/child
- 85 -- Disorders of Lipid Metabolism
- 78 – Overweight and Obesity
- 58 -- Asthma

Results – patients seen – Clinic 2

Large, urban federally-qualified healthcare center:

- NP students, Pharmacy students
- 2,398 patients seen (76% female; 0 - 90 yrs)



Most Frequent Diagnoses

- 406 – Normal Pregnancy
- 330 – Essential Hypertension
- 258 – Screening Malignant Neoplasm
- 246 – Diabetes Mellitus
- 191 – General Medical Examination
- 177 -- Health supervision infant/child
- 176 – Contraceptive Management
- 145 – Disorders of lipid metabolism

Student Feedback

Conducted focus group after each rotation:

- “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 then just education in this population, in ways that they understand.
- Not 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 to language barrier. And so you really have to get creative with how you explain things and describe things.
- And I think it was really great to bounce ideas off of 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.”



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 dental.”
- “I’d say for underserved patients, ...the limited knowledge they have about dentistry and oral health. What different things mean and ... how that affects their health, and how even when somebody has a toothache they still 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 give that extra coaching to be successful.”



Student Feedback

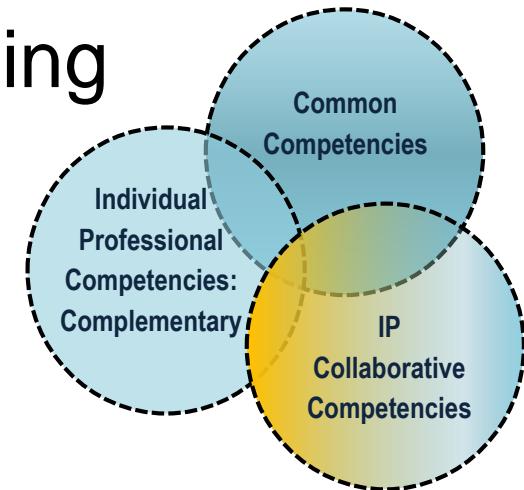
- “I think it depends also on the group of people too. I remember the Hispanic population,... it seemed like the more people that were in the room with white coats the better they felt. They felt like, oh thank you thank you! They just felt so cared for.”
- Exposure to patients in a safety-net clinic, including multiple cultures, working with interpreters, dealing with health literacy issues extremely beneficial
- Students “get a more holistic picture” of patients and patient care
- Students learn about teamwork, including ok to ask questions of other professionals – don’t need to practice alone

Results:

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

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
- Team socialization integral
- Impacted health delivery

Results:

- Student teams affected patient desired outcomes
 - Patients liked the team based care approach
- Students' report increased team skills and cultural competence
- Content needed on specific minority populations
- References on specific cultural competency for IPE currently lacking
 - Develop to provide concise guidance to beginning students

Conclusions:

- Project completed
- Data outcomes guiding future IPE curriculum development and projects
- Challenges regarding scheduling
 - Flexibility paramount
- Smaller clinical teams advantageous for team cohesiveness

Recommendations:

- Develop team identity early in project
- Discuss concise explanations of IPE and IPCP
- Examples of how IPCP works in real world
- Create community partnerships in advance
- Students benefit from work with same interprofessional team members

Recommendations:

- Semester-long rotation minimum
- Provide regular meetings for feedback
 - students, faculty, and clinical preceptors
- Communication platform a must
- Buy-in from community partners
- Flexibility paramount

This project was made possible through a grant from the Health
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Nurse Education, Practice, Quality, and Retention:
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Questions?

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