

Comparison between urban academic health care center and rural community faculty in approaches to IPE

Leslie Woltenberg, PhD¹, James Ballard, EdD, MS²,
James Norton, PhD¹, & Jesse Riddle¹

1. University of Kentucky Center for Interprofessional Health Education
2. University of Indiana Department of Family Medicine/IN-AHEC Network



SCHOOL OF MEDICINE

Objectives

Objectives: Following this presentation, participants will be able to:

- discuss the need to understand the varying contexts of practice in which students will be learning
- describe the importance of understanding rural practice as it relates to IPE
- discuss differences in interprofessional understanding and teaching between academic medical center and rural faculty



Introduction

We know:

- Evidence for benefits of IPC and need for IPE is growing
- Expanding accreditation standards for most professions to include IPE¹
- Significant use of classroom/simulation andragogical formats^{2,3} Learners find it artificial⁴
- Increasing consensus to integrate IPE into authentic clinical experiential contexts⁵
- Some programs/states provide significant and established uniprofessional experiential clinical training in rural sites



Introduction

We do not know:

- Similarities and difference in collaborative practice value, understanding, process in rural settings
- The extent of IPC and ability to “teach” IPE in rural sites

Importance:

- Nearly half the global population lives in rural areas⁶
- Significant amount of training occurs in rural context
- Behooves us to understand the culture, attitudes, and approaches to IPC and IPE among rural and academic contexts to effectively teach learners



Research Goals

1. Compare model of collaboration in ambulatory rural settings with those in an academic medical center
2. Describe the extent to which physician and pharmacist faculty in each setting intentionally ‘teach’ collaborative team-based care to students
3. Describe barriers to teaching in each setting



Methods

- Qualitative match-pair design comparing rural community faculty (CF) and urban academic faculty (AF)
 - 26 physician faculty (CF = 13; AF = 13) & 24 pharmacy faculty (CF = 12; AF = 12)
 - CF worked in ambulatory rural setting in one state; AF in one urban academic medical center
- Utilized semi-structure interviews including demographic data (age, gender, credentials, years in practice, specialty) and used for categorical matching



Methods

- Instrumentation
 - Semi-structured interview protocol to understand each providers approach to integrating IPC and guiding students toward this process for care
 - Included binary questions with opportunity to follow-up
 - Spontaneous member checking to increase validity^{7,8}
- Categorical matching process
 - Groups determined by demographic characteristics (by profession, age, years in practice, credentials, specialty)
 - Akin to Nearest Neighbor Technique for statistical matches⁹
 - Resulted in 25 pairs (13 urban/rural physician dyads & 12 rural/urban pharmacy dyads)



Analysis

- Thematic analysis by 3 researchers
- All 3 individually coded data
- Theme emerged as outcomes of coding, categorization, and analytic reflection¹⁰
- Framework method utilized to facilitate comparative techniques through review of data across a matrix¹¹
- Inter-rater agreement insured through mutual review of coding strategies and meaning-making to refine themes and resolve disagreement^{12,13}



Results

Research Goal 1: Compare models of collaboration

– How does collaboration occur?

- All: 56% no formal team meetings – occurs on add-needed basis (46% say depends on case)
 - 14% weekly meetings; 10% bi-weekly meeting; 8% no meetings
- CF 3x more likely to engage in collaboration on as-need basis
- CF (physicians) 4x more likely than AF physicians to collaborate weekly



Results

Research Goal 1: Compare models of collaboration

– Where does collaboration occur?

- All: 68% describe regular collaboration outside own practice site
 - 28% regular collaboration with RN/NP
 - CF 2x > likelihood to collaborate outside own practice
 - Among physicians (CF & AF) 2x > likely than pharmacists to collaborate outside own practice
 - ~25% of pharmacists reported no frequent collaboration outside their practice



Results

Research Goal 2: Extent of intentionally teaching IPC

- All: 74% describe intentionally teaching IPC (no diffs by profession or rural/urban context). Among those:
 - 30% use active methods (i.e., authentic/hands-on)
 - 30% use passive (i.e., shadowing, observation, case studies, discussion)
 - 14% blended (a little higher among AF)
- Physicians are 3x more likely to use passive methods
 - CF pharmacists extensively use medication therapy management and collaborative care agreements with physicians as strategies (consider active)



Results

Research Goal 3: Barriers to teaching IPC

- All: 62% describe time (CF 2x more likely than AF)
 - Secondary: Lack of opportunity to interact with others, heavy workload, scheduling conflicts
- 4% of AF physicians see no value → do not teach
- CF 1.5 x more likely to feel ill-prepared and need faculty development



Discussion

- Both CF and AF value IPC even if challenging but differ in form and frequency
 - CF prefer as-needed for complex cases
 - AF prefer predictability and management of formal meetings
- Models of collaboration vary between rural and urban
 - CF may be more likely than AF to collaborate outside own practice (dictated by model of care and proximity to other professions)
 - AF described the positive impact of IP rounding for IPC/IPE



Discussion

- Both CF & AF report valuing intentionality of teaching IPC but the extent to which IPE occurs varies across context and profession
- Blended methods of instruction valued equally by both CF & AF
- Need for faculty development
 - Need for support for CF is paramount as they report being more ill-prepared
 - Yet all faculty indicate need for training , resources and support for teaching



Limitations

- Pilot with small n → lack of generalizability
- Although intent was to look at CF and AF as groups, there is a need to take more in depth look at each profession (physicians & pharmacists)



Conclusions

- Study offers early insights into similarities and differences of IPC occurring in rural and urban contexts and the degree and method to which it is approached in each
- Will assist development of future strategies to expand IPC and IPE in both
- Demonstrates the continuing need for faculty development



Questions?



SCHOOL OF MEDICINE

INDIANA AREA HEALTH
EDUCATION CENTERS NETWORK

References

1. Zorek, J. & Raehl, C. (2013). Interprofessional education standards in the USA: A comprehensive analysis. *Journal of Interprofessional Care*, 27, 123 – 130.
2. Meszaros, K., Lopes, I., Goldsmigh, P., and Knapp, K. Interprofessional education: Cooperation among osteopathic medicine, pharmacy, and physician assistant students to recognize medical errors. *Journal of the American Osteopathic Association*. 2011; 111(4):213-218.
3. MacDonnell, C.P., Rege, S.V., Misto, K., Dollase, R., and George, P. An introductory interprofessional exercise for healthcare students. *American Journal of Pharmacy Education*. 2012; 76(8):1-2.
4. Rosenfield, D., Oandasan, I., and Reeves, S. Perceptions versus reality: a qualitative study of students' expectations and experiences of interprofessional education. *Medical Education*. 2011; 45(5):471-477.
5. Cox, M. and Naylor, M. *Transforming Patient Care: Aligning Interprofessional Education with Clinical Practice Redesign*. Proceedings of a Conference sponsored by the Josiah Macy Jr. Foundation in January 2013; New York: Josiah Macy Jr. Foundation; 2013.
6. Parker, V., McNeil, K., Higgins, I., Mitchell, R., Paliadelis, P., Giles, M., Parmenter, G. How health professionals conceive and construct interprofessional practice in rural settings: a qualitative study. *BMC Health Services Research*. 2013; 13(1):1-21.
7. Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.



References

8. Birt L, Scott S, Cavers D, Campbell C, Walter F. Member checking: a tool to enhance trustworthiness or merely a nod to validation? *Qual Health Res* 2016; 26: 1802–1811.
9. Gutin G, Yeo A, Zverovich A. Traveling salesman should not be greedy: domination analysis of greedy-type heuristics for the TSP. *Discrete Appl Math*. 2002;117(1):81e86.
10. Saldana, J. *The coding manual for qualitative researchers*. Los Angeles, CA: SAGE; 2009:13.
11. Ritchie, J. & Spencer, L. Qualitative data analysis for applied policy research in A. Bryman and R. G. Burgess [eds.] *Analyzing qualitative data*, 1994, pp.173-194.
12. Armstrong D, Gosling A, Weinman J, Marteau T. The place of inter-rater reliability in qualitative research: an empirical study. *Sociology*. 1997;31:597–606.
13. Mauthner NS, Parry O, Backett-Milburn K. The data are out there, or are they? Implications for archiving and revisiting qualitative data. *Sociology*. 1998;32:733–745.

