

# Designing purposeful, longitudinal interprofessional education for pharmacy and allied health students to collaborate on community health issues

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## PURPOSE

To describe the design and evaluation of an innovative, multi-institutional interprofessional educational collaborative that prepares students and equips providers to learn and work together to address significant community health issues.

## BACKGROUND

- Robust interprofessional educational (IPE) experiences that are meaningful and long-term are necessary for preparing health professionals to collaborate effectively in today's complex healthcare system.
- Clinical faculty from two universities created an interprofessional collaborative called SPICE (Students and Practitioners for Interprofessional Collaboration and Education).
- SPICE implemented longitudinal, IPE modules for health professional students, faculty and local providers to foster developing interprofessional collaboration skills and competencies to address the opioid crisis in their community.
- IPE activities: team simulations, critical review of journal articles and evidence-based best practices, study of clinical cases, exploration of public health policies and community resources, exercises in motivational interviewing, development of a patient education newsletter about opioid safety, and a naloxone training and certification workshop.

## METHODOLOGY

- After each IPE, participants in SPICE completed an online survey to evaluate the impact of longitudinal IPE on participants' perceptions about interprofessional collaboration practice (IPCP) and provider confidence and readiness to respond to the opioid epidemic.
- Survey questions consisted of:
  1. Students Perceptions of Interprofessional Clinical Education Revised (SPICE-R2) instrument
    - 5-point Likert-type scale (1= strongly disagree; 5=strongly agree) to measure perceptions of IPE and IPCP
  2. Open-ended, self-reflection about Interprofessional Education Collaborative (IPEC) competencies and changes in attitude, skill and knowledge after each IPE.
- Descriptive statistics (mean and standard deviation) for quantitative data and frequency distributions for qualitative data were analyzed using IBM SPSS for Windows (Version 27, Chicago, IL).
- Qualitative data was used to augment and clarify findings from the SPICE-R and analyzed using grounded theory and the constant comparison method to develop themes.

## RESULTS

- In 2019-2020, 108 responses were collected from students, faculty and/or providers who participated in one or more of 9 IPE modules.
- 9 health disciplines were represented: pharmacy, nursing, kinesiology, public health, psychology, recreation therapy, physician's assistant, pre-medicine and social work.
- Participants demonstrated high scores on the SPICE-R2 (4.42 ± 0.58).
- No significant differences between student and non-student (licensed providers and faculty) responses on the SPICE R2 scores (p > 0.05).
- Most participants agreed that educational objectives were met.
- Overall, participants' perceptions and open-ended responses were positive.
- Review of qualitative data showed participants gained a greater understanding of the health issues and reported a broader view of the topics due to their interaction with people from other disciplines.

*"My understanding has grown as I got to learn how different healthcare disciplines approach or see the opioid crisis." – Participant quote from survey*

*"I am happy to see interprofessionals work together to address a current issue such as opioid abuse. One needs to be able to communicate with one another on how to manage patients.... Also being aware of resources available and learning from one another. We all have a different approach to provide with working with patients." – Participant quote from survey*

SPICE R2 Overall and Factor Scores	Mean	Standard Deviation
All Participants (N = 108)	4.42 ±	0.58
Students (n = 78)	4.39 ±	0.65
Faculty & Practitioners (n = 29)	4.51 ±	0.29
<b>Factor 1 – Interprofessional Teamwork and Team-based Practice</b>		
All Participants	4.73 ±	0.63
Students	4.68 ±	0.71
Faculty & Practitioners	4.85 ±	0.29
<b>Factor 2 – Roles and Responsibilities for Collaborative Practice</b>		
All Participants	3.98 ±	0.71
Students	4.03 ±	0.71
Faculty & Practitioners	3.89 ±	0.69
<b>Factor 3 – Patient Outcomes from Collaborative Practice</b>		
All Participants	4.44 ±	0.70
Students	4.38 ±	0.74
Faculty & Practitioners	4.66 ±	0.48

### Themes that emerged from one of the self-reflective questions: How has your understanding of the subject changed after today's discussion?

Increased my understanding of the topic
Increased my understanding of the skills required and available resources
Increased my understanding of the viewpoint of other disciplines
Increased my understanding of the importance of collaboration
Increased my understanding of my role and the role of other disciplines in patient care

## CONCLUSIONS

- The versatile activities of this interprofessional collaborative may be adapted in academic and/or practice settings to engage students and providers of different professions in high quality, meaningful and interactive learning with each other, so that they may be able to address significant public health issues and practice collaborative, patient-centered care more effectively.
- Future steps include administering a pre-activity survey for comparison and developing a grading tool to evaluate student performance in interprofessional collaboration.