



# Implementing a dental and pharmacy interprofessional telehealth simulation between two universities

Laura Romito, DDS, MS, MBA, FNAP<sup>1</sup>; Trish Devine, PharmD<sup>2</sup>; Deborah Zeitlin, PharmD<sup>2</sup>; David Zahl, MA<sup>1</sup>

<sup>1</sup>Indiana University School of Dentistry

<sup>2</sup>Butler University College of Pharmacy and Health Sciences

## QR CODES

### ABSTRACT



### REFERENCES



## INTRODUCTION

### Overview

- Butler Pharmacy (BUCOP) and Indiana Dentistry (IUSD) learners participate in a foundational IPE curriculum
- The **T**eam **E**ducation **A**dvancing **C**ollaboration in **H**ealthcare (**TEACH**) curriculum is longitudinal and competency-based (mapped to IPEC)
- Curriculum consists of 3 phases: (1) **exposure**, (2) **immersion** (simulation), and (3) **entry-to-practice** (patient care)

### Project Goals

- 1: Present an **authentic** patient scenario using a **multimedia approach**
- 2: Identify an online learning **environment for communication and collaboration**
- 3: Facilitate understanding of **roles/responsibilities** in addressing a **state health initiative**

## METHODS

### Case Development

- Baker's Desirable Characteristics of Cases for Small Group Learning checklist was used in the development of the case (Figure 1)

### Asynchronous Preparation

- Uniprofessional online learning modules** with **profession-specific standardized patient (SP) videos**
- Pharmacy video:** retail pharmacy setting; established patient; picking-up medications; smoking discussed
- Dentistry video:** general dentistry setting; new patient; CC: tooth pain/mobility; smoking discussed
- Pre-work assignment and team huddle questions designed to guide students in collaboratively **synthesizing information from videos** to develop tobacco cessation plan for their mutual patient

### Telehealth Simulation Session

- Orientation provided to learners and facilitators on **Zoom** teleconferencing platform (15 min)
- Breakout rooms** connected groups of learners/facilitators in virtual huddle to discuss case (10 min)
- Facilitators **debrief** with learners to discuss **cessation plan** learners developed for the patient (15-20 min)

### Assessment

- Faculty used a Modified Teamwork Simulation Observation Tool (13 items) to assess interprofessional group behaviors in the areas of team structure, leadership, situation monitoring, mutual support & communication
- Post-session evaluation surveys were administered to facilitators (9 items) and students (48 items)

### Analysis

- Descriptive statistical analysis (frequencies) conducted on faculty assessment and post-evaluation surveys

## FIGURE 1. CASE DEVELOPMENT PROCESS



## RESULTS SUMMARY

### Facilitator Observations of Team Behaviors

- Facilitators observed team collaborative behaviors *often-sometimes* in most groups (range: 100% - 75%)
- The team behavior most frequently observed (*often*) was **provides specific, useful, and timely information** (92.9%)

### Learners' Perceptions of IPE Simulation

- 97.4% of learners *strongly agreed-agreed* they were **satisfied with interaction with other students**
- 91.1% of learners *strongly agreed-agreed* the **cases/scenarios were realistic**
- Overall, 91.6% of learners *strongly agreed-agreed* they were **satisfied with the learning session**

### Learners' Perceptions of Attaining Simulation Objectives

- Overall, most learners *strongly agreed-agreed* they achieved the objectives (range: 95.2% - 89.4%)
- Learners (95.3% *strongly agreed-agreed*) rated **accountability** and **teamwork** objectives **the highest**

### Learners' Perceptions of Team Behaviors

- Team behaviors observed most frequently (*always-often*) by learners were **actively collaborated with others** (97.4%), **worked with others to problem solve** (96.4%), and **integrates information into action plan** (95.3%)

## TABLES

### Facilitators' Observations of Interprofessional Teams during Simulated Huddle, n=28 (Dental and Pharmacy Faculty)

Team Collaborative Behaviors Assessment	Often n(%)	Sometimes n(%)	Never n(%)	N/A n(%)
Team meets goals identified	15 (53.6)	10 (35.7)	0 (0)	3 (10.7)
Fulfills assigned roles and responsibilities	18 (64.3)	9 (32.1)	1 (3.6)	0 (0)
Holds each other accountable	13 (46.4)	14 (50)	1 (3.6)	0 (0)
Utilizes available resources	17 (60.7)	9 (32.1)	0 (0)	2 (7.1)
Empowers each other to speak	22 (78.6)	6 (21.4)	0 (0)	0 (0)
Works as a team to problem solve	23 (82.1)	5 (17.9)	0 (0)	0 (0)
Includes pt specific communication	22 (78.6)	4 (14.3)	0 (0)	2 (7.1)
Actively collaborates with each other	23 (82.1)	5 (17.9)	0 (0)	0 (0)
Distributes work across all team members	14 (50)	13 (46.4)	1 (3.6)	0 (0)
Provides specific, useful, and timely information	26 (92.9)	2 (7.1)	0 (0)	0 (0)
Integrates info as it is obtained into action plan	20 (71.4)	8 (28.6)	0 (0)	0 (0)
Utilizes closed loop communication	12 (42.9)	13 (46.4)	2 (7.1)	1 (3.6)
Addresses conflict appropriately	7 (25)	2 (7.1)	3 (10.7)	16 (57.1)

\*Often=behavior observed ≥3x; sometimes=behavior observed 1-2x; never= behavior not observed

### Students' Perceptions of IPE Simulation, Attainment of Immersion Objectives, and Team Behaviors n=191 (92 Dentistry and 99 Pharmacy)

Perceptions of IPE Simulation	n	Strongly Agree, n(%)	Agree, n(%)	Neutral, n(%)	Disagree, n(%)	Strongly Disagree, n(%)
Content relevant to my professional practice	190	104 (54.7)	77 (40.5)	4 (2.1)	2 (1)	3 (1.6)
Relevant to my coursework and program	190	96 (50.5)	81 (42.6)	6 (3.2)	4 (2.1)	3 (1.6)
Session helped improve my ability to collaborate	190	95 (50)	71 (37.4)	16 (8.4)	5 (2.6)	3 (1.6)
Cases/scenarios were realistic	190	110 (57.9)	63 (33.2)	9 (4.7)	5 (2.6)	3 (1.6)
Satisfied with interaction with other students	189	116 (61.4)	68 (36)	2 (1.1)	0 (0)	3 (1.6)
Overall, I was satisfied with this learning session	189	98 (51.9)	75 (39.7)	7 (3.7)	3 (1.6)	6 (3.2)

Team Behaviors	n	Always, n(%)	Often, n(%)	Sometimes, n(%)	Never, n(%)
Identified goals in huddle	191	119 (62.3)	49 (25.7)	16 (8.4)	7 (3.7)
Met goals identified in huddle	191	119 (62.3)	55 (28.8)	14 (7.3)	3 (1.6)
Assigned roles and responsibilities	191	58 (30.4)	45 (23.6)	47 (24.6)	41 (21.5)
Fulfilled assigned roles and responsibilities	191	112 (58.6)	56 (29.3)	15 (7.9)	8 (4.2)
Held others accountable	191	108 (56.5)	56 (29.3)	21 (11)	6 (3.1)
Empowered others to speak	191	139 (72.8)	43 (22.5)	7 (3.7)	2 (1)
Worked with others to problem solve	191	127 (66.5)	57 (29.8)	7 (3.7)	0 (0)
Actively collaborated with others	191	141 (73.8)	45 (23.6)	5 (2.6)	0 (0)
Distributed work across all team members	190	131 (68.9)	45 (23.7)	11 (5.8)	3 (1.6)
Integrates info into an action plan	191	133 (69.6)	49 (25.7)	9 (4.7)	0 (0)
Utilized closed loop communication	191	105 (55)	50 (26.2)	28 (14.7)	8 (4.2)
Used communication tools appropriately	191	133 (69.6)	49 (25.7)	8 (4.2)	1 (0.5)

## KEY TAKEAWAYS

- Outcomes suggest telehealth simulation was an **authentic learning** experience
- IPE session and team behaviors were overall **positive, relevant, and realistic**
- Emphasis on roles and responsibilities may improve IP interactions** of learners