

# Using Blended Learning to Deliver Interprofessional Education (IPE)

Jane Shtaynberg, PharmD; Bojana Beric, MD, PhD, CHES; Scott Henkle, MFA; Peggy Lynam, PT, DPT; Amerigo Rossi, EdD



# BACKGROUND

- Interprofessional education has been a part of Long Island University programs for many years and starting in 2012 as many as 11 professions (600+ students) have been participating in several live events throughout the academic year
- In an effort to alleviate logistical and scheduling challenges associated with exclusively face-to-face delivery of IPE, alternate methods were explored where students could interact with and learn from and with each other.

## **METHODS**

- First-year students from Pharmacy and Physical Therapy programs participated in interprofessional activities focusing on IPEC competencies of Roles and Responsibilities and Interprofessional Communication as part of their respective program's courses.
- Students participating in the activity were asked to complete a demographic survey and an Interprofessional Socialization and Valuing Scale (ISVS-21) prior to participation (pre-activity survey). The same ISVS-21 survey was also completed after participation (post-activity survey).
- Students and participating faculty were also asked to provide qualitative feedback about all components of the blended IPE (combination of digital media and classroom learning)
- The IPE blended learning sessions took place over a course of 2 weeks and were divided into 2 potions: Portion 1 electronic, asynchronous and Portion 2 in-class, face-to-face

#### Portion 1

- ➤ Completed electronically via the Blackboard TM learning management system
- Included watching educational presentations, researching professions other than the one the students were currently studying in, and participating in discussion boards
- Discussion Board 1 was for introductions so students can get to know each other
- Discussion Board 2 was to share what they learned about other professions (each student had to post 2 things he/she learned about 2 other professions approved by the faculty) and after reading the other students' posts comment on at least one
- ➤ In order to ensure students completed all components, a 7 question quiz based on the provided educational materials was administered via Blackboard <sup>TM</sup>
- A total of 1 week was dedicated for students to complete these activities asynchronously

### Portion 2

- Completed in class face-to-face the week following portion 1
- > Included group navigation of an interactive patient scenario
- Students were divided into groups of 10 (5 from each profession) and given access to a patient scenario game which took students through a series of events occurring with a homeless man brought to the Emergency room
- Game progression relied on the group's consensus for a decision about each stage of the patient's care and recommendations for health professionals who should be involved in that care at the various stages
- > Following completion of the interactive game a debriefing took place
- Live session took approximately 2 hours (15 minutes for introductions and activity instructions, 1 hour for group case navigation, 30 minutes for debriefing)

## RESULTS

### Table 1: ISVS-21 Pre- and Post-Activity Responses of Students Participating in the Blended IPE

		Pre-activity		Post-activity			
ISVS-21 Scale	N	Mean	SD	Mean	SD	Z-statistic	P-value
I am aware of my preconceived ideas when entering into team discussions							
	82	5.2	1.1	5.8	1.1	-3.224	0.001
have a better appreciation for using a common language across the health professionals in a team	82	5.6	1.3	6.1	1.0	-2.662	0.008
have gained an enhanced awareness of my own role on a team							
	81	5.7	1.1	6.1	0.9	-2.818	0.005
I am able to share and exchange ideas in a team discussion	81	5.7	1.0	6.2	0.8	-3.402	0.001
have gained an enhanced perception of myself as someone who engages in interprofessional practice							
<u> </u>	80	5.3	1.1	6.1	1.0	-4.232	0.000
I feel comfortable being the leader in a team situation	80	4.9	1.4	5.7	1.1	-3.855	0.000
I feel comfortable in speaking out within the team when others are not keeping the best interests of the client in mind	81	5.6	1.2	5.9	1.0	-1.937	0.053
I feel comfortable in describing my professional role to another team member							
	81	5.8	1.0	6.2	0.8	-2.196	0.028
I have a better appreciation for the value in sharing research evidence across different health professional disciplines in a							
team	01	5.7	1 1	(2	0.0	2 (2	0.000
I am able to negotiate more openly with others within a team	81	5.7	1.1	6.2	0.9	-3.63	0.000
I have gained an enhanced awareness of roles of other	81	5.6	0.9	6.2	0.9	-3.707	0.000
professionals on a team	81	5.6	1.2	6.1	0.9	-3.416	0.001
I am comfortable engaging in shared decision making with	01			002		01110	0001
clients	80	5.7	0.9	6.2	0.8	-3.56	0.000
I feel comfortable in accepting responsibility delegated to me within a team							
	81	5.9	0.8	6.2	0.8	-2.528	0.011
have gained a better understanding of the client's involvement in decision making around their care							
feel comfortable clarifying misconceptions with other members	81	5.7	1.2	6.2	1.0	-2.792	0.005
of the team about the role of someone in my profession							
	81	5.6	1.0	6.2	0.9	-4.14	0.000
have gained greater appreciation of the importance of a team	01	2.0	110	0.2	0.5	112.1	0.000
approach approach	81	6.0	1.0	6.4	0.8	-2.811	0.005
I feel able to act as a fully collaborative member of the team	81	5.9	1.0	6.3	0.8	-2.886	0.004
I feel comfortable initiating discussions about sharing responsibility for client care	01	57	1.0	(2)	0.0	2 142	0.002
I am comfortable in sharing decision making with other	81	5.7	1.0	6.2	0.9	-3.143	0.002
professionals on a team	81	5.8	1.0	6.3	0.8	-3.162	0.002
I have gained more realistic expectations of other professionals					3.0	0.1202	
on a team	81	5.6	1.0	6.1	1.0	-2.988	0.003
I have gained an appreciation for the benefits of							
interprofessional team work	81	6.1	0.8	6.4	0.8	-2.168	0.030

# **RESULTS** (continued)

Eighty-two students participated in the IPE activities. Majority of the students (85%) scored more than 70% on the knowledge quiz with 52% of the students receiving a perfect score. Results from the ISVS-21 scale were analyzed using Wilcoxon Signed rank test. Statistically significant improvements were seen with 20 of the 21 items (Mean score increase from 5.6 to 6.1. Effect size (r=0.34)). Students also expressed positive feedback about their participation.



The rooms are loud and active. It's a busy night. There are people everywhere, most of the waiting areas and hallways are filled with gurneys.

He cannot stay here. For this reason and more, Mr. Doe needs to be examined.

Who should do the examining?

riage Nurse Physician's Assitant Social Worker

"Having to explain my ideas about the next step in the game to the other students helped me to understand the need for good communication with other professionals"

### **Student Feedback**

- "I thought the IPE activity was useful in terms of educating us on what each health care profession did"
- "I liked that the game scenario represented a real-life situation"

DISCUSSION SECTION

Clearly, Mr. Doe's behavior is a problem that needs to be dealt with. Convene a team meeting and discuss what might be done to help him.

Consider the following issues:

Who should be included at the team meeting?
What should be covered?
Who should be in charge of helping the staff who have to deal with Mr. Doe?
Mr. Doe clearly upsets staff members. What is the best way to deal with the effects of this

# LESSONS LEARNED

- It would be more valuable to have students from multiple professions (more than 2) participate in the activity
- Blended format, combining asynchronous and face-to-face learning, was well received by the students and faculty and provided positive outcomes for both learning and scheduling
- Face-to-face interaction is still a beneficial component for effective communication, questions and answers, clarifications, and takeaways
- Interactive (game) component resulted in better buy-in and engagement of students

## **IMPLICATIONS**

Blended learning can be an effective way to deliver interprofessional education and can partially alleviate logistical challenges related to fully synchronized sessions

Blended format for IPE can offer additional opportunities for larger programs o engage in interprofessional education

