

A Medical student, Pharmacy student and a Nurse resident walk into a room...

Cara Chandler, Jason Cross,
Cinnamon Desgres, Reva Kleppel,
Michael Picchioni
Baystate Medical Center - Springfield, MA

Objectives

- Describe how an innovative interprofessional education project was designed and implemented in an academic clinical setting.
- Demonstrate how simulation was employed to advance interprofessional education in the academic clinical setting.

What were we thinking?

- Desire to improve team cohesiveness
- Accreditations needs
- Previous experience working on other projects



Matchmakers

- 3rd year Medical students
- Pharmacy student/residents
- New nurses in residency program



Description of IP Program

- An IPE overview via online module
- Meet and Greet session
- Three simulation cases
- Focus Group

An IPE overview via online module

Topics

1. Explain what interprofessional education (IPE) is.
2. Describe team behaviors and the roles and practices of effective teams .
3. Audio Introduction to Team members
 - How do you become an MD?
 - How do you become a PharmD?
 - How do you become a Registered Nurse?

Videos from

- Health Sciences Education and Research Commons (HSERC), University of Alberta. (2012). Role clarification (interprofessional competency). Retrieved from the University of Alberta, Virtual Interprofessional Educator Resource (VIPER) website:
<http://www.hserc.ualberta.ca/TeachingandLearning/VIPER/EducatorResources/CompetencyVideos.aspx>

Meet and Greet session

- Review of program
- Introduce participants
- Ice breaker
- Introduction to simulator

Lost at Sea



Grahame Knox

Three Simulation Cases

- Unresponsive patient: HPS mannequin only
- Medication Reconciliation: Standardized patient and mannequin for assessment
- Pain management: Standardized patient

Data Collection

- The Interprofessional Collaborative Competency Attainment survey (ICCAS)
- Survey issued pre and post program for quantitative data
- A focus group for qualitative data

Interprofessional Collaborative Competency Attainment Survey

Profession _____ Mother maiden name _____

Please answer the following questions by circling the number that most accurately reflects your opinion about the following interprofessional collaboration statements

Please rate your ability for each of the following statements:
1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neutral,
5=slightly agree 6= moderately agree 7=strongly agree, NA=not applicable

Before participating in the learning activities I was able to:

1)Promote effective communication among members of an interprofessional (IP) team*	1 2 3 4 5 6 7 NA
2) Actively listen to IP team members ideas and concerns	1 2 3 4 5 6 7 NA
3) Express my ideas and concerns without being judgmental	1 2 3 4 5 6 7 NA
4)Provide constructive feedbacks to IP team members	1 2 3 4 5 6 7 NA
5)Express my ideas in a clear concise manner	1 2 3 4 5 6 7 NA
6)Seek out IP team members to address issues	1 2 3 4 5 6 7 NA
7)Work effectively with IP team members to enhance care	1 2 3 4 5 6 7 NA
8)Learn with, from and about IP team members to enhance care	1 2 3 4 5 6 7 NA
9)Identify and describe my abilities and contributions to the IP team	1 2 3 4 5 6 7 NA
10)Be accountable for my contributions to the IP team	1 2 3 4 5 6 7 NA
11)Understand the abilities and contributions of the IP team members	1 2 3 4 5 6 7 NA
12)Recognize how others skills and knowledge compliment and overlap with my own	1 2 3 4 5 6 7 NA
13) Use an IP team approach with the patient** to assess the health situation	1 2 3 4 5 6 7 NA
14)Use an IP team approach with the patient to provide whole person care	1 2 3 4 5 6 7 NA
15) Include the patient/family in decision making	1 2 3 4 5 6 7 NA
16)Actively listen to the perspectives of IP team members	1 2 3 4 5 6 7 NA
17)Take into account the ideas of the IP team members	1 2 3 4 5 6 7 NA
18) Address team conflict in a respectful manner	1 2 3 4 5 6 7 NA
19)Develop an effective care*** plan with IP team members	1 2 3 4 5 6 7 NA
20)Negotiate responsibilities within overlapping scopes of practice	1 2 3 4 5 6 7 NA

*The patient's family or significant other when appropriate are part of the IP team
** the word "patient" has been utilized to represent client, resident and service user
*** the term "care" includes intervention, treatment, therapy, evaluation ect.

Survey will be given again after cases completed

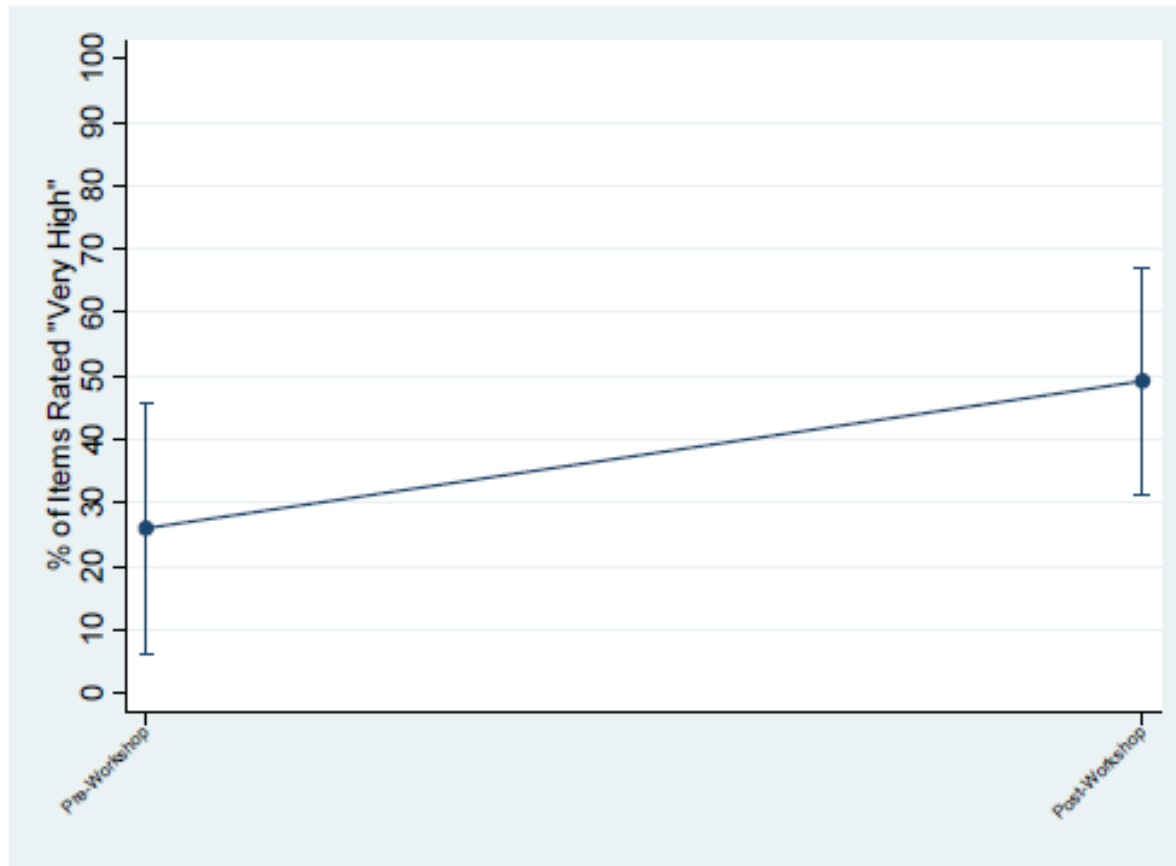
ICCAS Results

Table 1. Median Item Score (Range 0 to 6)

Item	Description	Time 1	Time 2	ES
		50 th (25 th ,75 th)	50 th (25 th ,75 th)	
1	promote effective communication among IP team	5 (5,6)	5 (5,6)	+0.22
2	actively listen to IP team members ideas and concerns	5 (5,6)	6 (5,6)	+0.29
3	express my ideas and concerns without being judgmental	5 (5,6)	6 (5,6)	+0.14
4	provide constructive feedback to IP team members	4 (4, 5)	5 (4, 6)	+0.28
5	express my ideas and concerns in a clear, concise manner	5 (4, 5)	6 (5, 6)	+0.73
6	seek out IP team members to address issues	5 (4, 5)	5 (5, 6)	+0.42
7	work effectively with IP team members to enhance care	5 (5, 6)	5 (5, 6)	+0.05
8	learn with, from & about IP team members to enhance care	5 (5, 6)	6 (5, 6)	+0.02
9	identify & describe my abilities and contributions to IP team	5 (4, 5)	5 (4, 6)	+0.31
10	be accountable for my contributions to the IP team	5 (5, 6)	6 (5, 6)	+0.27
11	understand the abilities and contributions of IP team members	5 (5, 6)	6 (5, 6)	+0.35
12	recognize how others skills and knowledge complement and overlap with my own	5 (5, 6)	5 (4, 6)	-0.31
13	use an IP team approach with pts to assess the health situation	5 (4, 6)	5 (5, 6)	+0.29
14	use an IP team approach with patient to provide whole person care	5 (5, 6)	6 (5, 6)	+0.42
15	include patient/family in decision-making	5 (5, 6)	6 (5, 6)	+0.21
16	actively listen to perspectives of IP team members	5 (5, 6)	6 (5, 6)	+0.37
17	take into account ideas of IP team members	5 (5, 6)	6 (5, 6)	+0.20
18	address team conflict in a respectful manner	5 (4, 6)	6 (5, 6)	+0.51
19	develop an effective care plan with IP team members	5 (4, 5)	5 (5, 6)	+0.38
20	negotiate responsibilities within overlapping scopes of practice	4.5 (4,5)	5 (4, 6)	+0.50
Total		99 (94,105)	107 (94, 120)	+0.50

ICCAS results

Figure 1. ICCAS Scores Pre- and Post-Simulations



ICCAS

Table 2. Proportion Reporting “Very Strong” Agreement

Item	Description	Time 1 (n=19)	Time 2 (n=19)	p-value
1	promote effective communication among members of IP team	26.3	47.4	0.31
2	actively listen to IP team members ideas and concerns	42.1	63.2	0.33
3	express my ideas and concerns without being judgmental	42.1	57.9	0.52
4	provide constructive feedback to IP team members	10.5	36.8	0.12
5	express my ideas and concerns in a clear, concise manner	21.1	63.2	0.02
6	seek out IP team members to address issues	22.2	47.4	0.17
7	work effectively with IP team members to enhance care	26.3	42.1	0.50
8	learn with, from and about IP team members to enhance care	47.4	57.9	0.75
9	identify & describe my abilities and contributions to IP team	21.1	47.4	0.17
10	be accountable for my contributions to the IP team	31.6	57.9	0.19
11	understand the abilities and contributions of IP team members	26.3	52.6	0.18
12	recognize how others skills and knowledge complement and overlap with my own	42.1	42.1	1.00
13	use an IP team approach with patient to assess the health situation	33.3	42.1	0.74
14	use an IP team approach with patient to provide whole person care	33.3	55.6	0.32
15	include patient/family in decision-making	38.9	52.6	0.52
16	actively listen to perspectives of IP team members	42.1	68.4	0.19
17	take into account ideas of IP team members	36.8	57.9	0.33
18	address team conflict in a respectful manner	33.3	57.9	0.19
19	develop an effective care plan with IP team members	23.5	42.1	0.30
20	negotiate responsibilities within overlapping scopes of practice	22.2	42.1	0.30
Total	Average Percent Score (mean/SD)	26.0	49.2	0.09

Focus Group



A word cloud of feedback from a focus group. The words are arranged in a roughly circular pattern, with 'Good Fun' at the top and 'Interactive' at the bottom. The words vary in size and color, including shades of purple, green, and red. The most prominent words are 'Good Fun', 'Interdisciplinary', 'Eye-opening', 'Useful', 'Helpful', 'Unique', 'Collaborative', 'Interesting', and 'Interactive'. Other words include 'Awkward', 'Fun', 'Resourceful', 'experience', 'Clever', 'Practical', and 'Helpful'.

Good Fun
Interdisciplinary
Awkward Eye-opening
Fun Useful Fun
Helpful Unique experience
Clever Collaborative Helpful
Interesting Practical
Interactive

WordItOut

Themes & Quotes:

Collaboration:

- “It was really collaborative with the different roles working together to find some common ground while also **utilizing each one’s skills to better assess the patient and come up with a plan that worked for everyone and most importantly the patient.**”

Feeling Valued :

- “I felt like the med students really listened to the nurses about, when we had a scenario about pain management it was kind of like they were taking into account like my experience with pain, what worked for other people, **bouncing ideas off each other**. They didn’t automatically go – okay, just give one milligram Dilaudid - we discussed it before. **We made sure everyone was on the same page** including pharmacy, so it was nice. Yeah, I felt like **I could speak to them and they wouldn’t ignore what I am saying or just brush over it, which sometimes happens on the floors.**”

Continued...

Trust:

- “(It) definitely felt like in the first setting we had to justify and explain all of our recommendations and give explanations of where we’re coming from and in the second and third they **were much more receptive and open to our ideas.**”
- “That is one thing that I think developed over the sessions. (Speaking) from the experience I had with my group in the first session we were all trying to get to know each other. We talked about this at the last session. (In) first session... we never actually came to any decisions and we never said...let’s do this for the patient. And then over time **we were able to develop that and become more effective as a team.** Definitely by the last one we were all kind of going in and out of providing our leader role. So that was good. “

Teamwork:

- “...just being more comfortable with each other. It seems like all the groups opened up to each other after the first simulation and felt more comfortable bouncing ideas off of each other.”
- **“I think it takes a level of mutual respect being comfortable with people and understanding, we all ultimately have the same goal, right? To keep this mannequin alive and well.** I think it takes time getting to know people... we all have the same goal. So it’s like we’re together, so that’s number one.”

Role Clarification:

Nurse Resident

- “One thing that I noted that was a... major contrast...The patient had a fall and had altered mental status, the scene suggested...a head CT and the medical students were like “Well, do you think it’s a subarachnoid hemorrhage or a subdural hemorrhage? And I’m like... I don’t think like that, I did think, oh, he has altered mental status, he had a recent fall, head CT. So, **it was just interesting to see like the different thought processes that went into the decision making.**”

Pharmacy Resident

- “...my role is largely depends on who I’m working with and how receptive they are to my input. I think a lot of times people don’t know what a clinical pharmacist can do and I think even in this simulation a lot of things that we’re hearing are, “Oh, you know, **pharmacy checks the dosages of things.**” I think that’s like the lowest level thing that we’ll end up doing, like, my job on the team and my opinion, from what I see, is to make sure that any medication treatment we’re using is **optimal for that particular patient and that particular situation based on the literature...**I enjoy being involved in decisions on new therapy.”

Med Student

- “That example, ... for me anyways, just seeing you two (referring to the Pharmacists) do a dosing for... you know, narcotic dosing of a patient, doing conversions for dilaudid to oxycontin, ER, IR, **(T)he fact you’re just doing that and just you doing that math out, I mean, to me that was just impressive, so it may be the lowest thing that you do, to me it was just like,** I don’t even know what you did...”

Recommendations:

- Change order of scenarios to progress from more structured to less structured examples.
- Have only 1 from each profession and use the other as a consultant/"phone a friend" concept.
- Keep door to simulation room closed so it feels less like a fishbowl. Participants could see instructors through the door.
- Even the learning field by decreasing the range of experience within the groups. Some residents had been working for a year.

Next steps

- Essentially duplicate pilot to see if results are reproducible
- Some operational changes
- Change the order of cases

Questions



References

- Archibald, Douglas et al. "Validation of the Interprofessional Collaborative Competency Attainment Survey." *Journal of Interprofessional Care*, vol. 28, no. 6, 12 May 2014, pp. 553–558. doi:10.3109/13561820.2014.917407
- Health Sciences Education and Research Commons (HSERC), University of Alberta. (2012). Communication (interprofessional competency). Retrieved from the University of Alberta, Virtual Interprofessional Educator Resource (VIPER) website: <http://www.hserc.ualberta.ca/TeachingandLearning/VIPER/EducatorResources/CompetencyVideos.aspx>
- Health Sciences Education and Research Commons (HSERC), University of Alberta. (2012). Collaboration (interprofessional competency). Retrieved from the University of Alberta, Virtual Interprofessional Educator Resource (VIPER) website: <http://www.hserc.ualberta.ca/TeachingandLearning/VIPER/EducatorResources/CompetencyVideos.aspx>
- Health Sciences Education and Research Commons (HSERC), University of Alberta. (2012). Role clarification (interprofessional competency). Retrieved from the University of Alberta, Virtual Interprofessional Educator Resource (VIPER) website: <http://www.hserc.ualberta.ca/TeachingandLearning/VIPER/EducatorResources/CompetencyVideos.aspx>
- Health Sciences Education and Research Commons (HSERC), University of Alberta. (2012). Reflection (interprofessional competency). Retrieved from the University of Alberta, Virtual Interprofessional Educator Resource (VIPER) website: <http://www.hserc.ualberta.ca/TeachingandLearning/VIPER/EducatorResources/CompetencyVideos.aspx>
- Lost at Sea retrieved from <http://insight.typepad.co.uk/insight/2009/02/lost-at-sea-a-team-building-game.html>