

Innovative Approach to Implement Interprofessional Education through Co-Curricular Certification Programs

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Introduction

- Accreditation standards, CAPE Educational Outcomes, and Core Competencies for Interprofessional Collaborative Practice address the importance of interprofessional education (IPE) to develop practice-ready healthcare professionals.
- While IPE has traditionally been incorporated within the curriculum at the Philadelphia College of Pharmacy, co-curricular certification programs offer an innovative approach to expand IPE.

Objective

- To implement IPE through two co-curricular certifications with healthcare professional students within and external to the University of the Sciences that expand on traditional incorporation within the curricula.

Methods

- The CPR Leadership Team, an interprofessional student-led American Heart Association (AHA) Basic Life Support (BLS) certification program, was established at USciences in Fall 2014 to certify healthcare professional students, faculty/staff, and community members.



- Interprofessional Advanced Cardiac Life Support (*i*ACLS) was implemented with the University of Pennsylvania's Schools of Medicine and Nursing to deliver the AHA's ACLS certification course with an interprofessional focus in March 2016.
- *i*ACLS augments the traditional course with interprofessional activities (e.g., teamwork exercise, discussion of education/training and future roles for each profession, vignettes such as a difficult team member incorporated into megacodes to facilitate assessment and debriefing of interprofessional performance).



Results

Table 1. Team Skills Performance Pre- (Spring 2013) and Post-Implementation (Spring 2016) of CPR Leadership Team			
BLS Skills	Pre-implementation (n=22), n (%)	Post-implementation (n=24), n (%)	p-value
Assessed responsiveness	9 (41)	23 (96)	<0.0001
Assessed breathing	7 (32)	24 (100)	<0.0001
Assessed pulse	8 (36)	23 (96)	<0.0001
Initiated CPR within 30 seconds	19 (86)	24 (100)	0.1014
Correct hand placement ≥ 100 compressions/minute ≥ 2 inches in depth Complete chest recoil	Not Evaluated	24 (100) 23 (96) 24 (100) 24 (100)	Not Evaluated
Administered appropriate rescue breaths	7 (32)	24 (100)	<0.0001

Table 2. Post-Interprofessional BLS Certification Survey Administered to Peers by CPR Leadership Team, n (%)					
Questions (n=1545*, 2015-2018)	SA	A	N	D	SD
Peer-led training enhanced this course.	1105 (72)	380 (25)	54 (3)	1 (0)	3 (0)
I felt more comfortable asking questions from peer instructors than faculty instructors.	850 (55)	412 (27)	254 (16)	23 (1)	6 (0)
Learning with other health professional students during BLS training encourages collaborative patient care.	1036 (67)	425 (28)	80 (5)	1 (0)	2 (0)
I will recommend that other students complete BLS training with the CPR Leadership Team.	1154 (75)	347 (22)	39 (3)	2 (0)	2 (0)
	Stud	Fac	All	*Survey completion:	
Who do you perceive provides optimal training in BLS?	362 (23)	77 (5)	1105 (72)	1545/1631 (95%)	
SA: strongly agree; A: agree; N: neutral; D: disagree; SD: strongly disagree; Stud: student instructors; Fac: faculty instructors; All: all American Heart Association-certified instructors are equally qualified					

Table 3. Team Skills Performance and Outcomes for Non-ACLS Certified and <i>i</i> ACLS Certified Student Pharmacists			
Skills/Outcomes	Non-ACLS Certified Teams (n=10), n (%)	<i>i</i> ACLS Certified Teams* (n=21), n (%)	p-value
Correctly performed all BLS skills	5 (50)	21 (100)	0.002
Correctly performed all ACLS skills	2 (20)	18 (86)	<0.001
Simulated patient survival	0 (0)	18 (86)	<0.001
*1-2 <i>i</i> ACLS certified team members			

Table 4. Team Strategies & Tools to Enhance Performance and Patient Safety (TeamSTEPPS) Skill Domain Mean Scores Based on Future Profession of Team Leader During <i>i</i> ACLS				
TeamSTEPPS Skill Domain (n=126)	Future Physician (n=60)	Future Nurse or Nurse Practitioner (n=28)	Future Pharmacist (n=37)	p-value
Team structure	4.32	4.21	4.03	0.195
Leadership	4.33	4.14	3.70	<0.001
Situation monitoring	4.28	4.25	3.84	0.016
Mutual support	4.40	4.43	4.30	0.676
Communication	4.43	4.25	4.08	0.070
Total score	21.77	21.29	19.95	0.007
Mean score determined from faculty facilitator reported score using 5-point scale from 1=poor to 5=excellent				

Results (cont.)

Table 5. TeamSTEPPS Skill Domain Mean Scores Based on Scenario Number During <i>i</i> ACLS						
TeamSTEPPS Skill Domain (n=126)	Mean Scores for Scenario Numbers					
	1 (n=22)	2 (n=22)	3 (n=22)	4 (n=22)	5 (n=20)	6 (n=11)
Team structure	4.09	3.95	4.05	4.27	4.45	4.45
Leadership	4.27	3.95	3.95	4.09	4.20	4.18
Situation monitoring	4.05	4.05	4.18	4.23	4.00	4.55
Mutual support	4.36	4.32	4.41	4.41	4.40	4.45
Communication	4.27	4.14	4.32	4.27	4.40	4.27
Total	21.05	20.41	20.91	21.27	21.45	21.91
Mean score determined from faculty facilitator reported score using 5-point scale from 1=poor to 5=excellent						

- The interprofessional student-led BLS program has certified over 1,800 participants with research demonstrating a positive impact on skills performance and retention, knowledge acquisition, and attitudes regarding interprofessional collaboration.
- Participants certified through *i*ACLS demonstrated skills performance, development of TeamSTEPPS skill domains, and significant improvement in all interprofessional behaviors assessed by the Interprofessional Collaborative Competency Attainment Survey (ICCAS).

Implications

- Based on our demonstrated outcomes, other institutions may consider expanding current IPE opportunities through co-curricular certification programs.
- Future research should assess generalizability of our findings to other co-curricular certification programs.

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