Innovative Technique Employed in Traditional and Distance-site Classroom Settings Improves Student Pharmacists' Self-perception of Communication Skills

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Background

The Center for Advancement of Pharmacy Education lists communication as one of the skills graduates of Doctor of Pharmacy programs should master.[1] Specifically, graduates should be able to 'effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.'[1] Students must master this regardless of the classroom setting, traditional or distance-site, in which they receive this instruction.

Gerald Grow's model for matching learning stages to teacher styles and Miller's model of clinical competence can guide course design.[2,3] These models assist in engaging adult learners at multiple competency levels as well as designing sessions that employ a variety of instructional techniques to capture students at their unique learner stage.

Objectives

- Evaluate the effectiveness of a course in improving student pharmacists' self-perception of communication skills
- Determine if the course format was equally effective for at both the on-site (OS) and on-site plus distance campus (OSDC)

Methods

Course Description
- Two credit hour Communication Skills and Human Behavior course
- Addressed ACPE 2016 Standards 3 and 4 with emphasis on education, interprofessional collaboration, cultural sensitivity, communication, self-awareness, and professionalism
- Variety of learning strategies used including mini-lectures, active learning exercises, improvisation activities, and self/peer evaluations
- Fourth-year student pharmacists and pharmacy residents involved in the course as lecturers, activity/improvisation group leaders, and graders

Survey Instrument and Administration
- Interpersonal Skills Self-Assessment (https://www.skillsyouneed.com), a British educational website, which measures self-perception of communication skills in four core areas: listening skills, emotional intelligence, verbal communication and effective speaking, and communicating in groups
- Administered on the first day and prior to the last day of the course
- Students voluntarily submitted scores obtained for each skill into an anonymous survey through Survey Monkey
- Independent t-test used to compare pre/post scores in the four skills areas and to assess for any differences between the two cohorts

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Course Content

Random # Selection & Question → Mini-lecture → Activity → + / - Improv

Week	Mini – Lecture Topic
1	Introduction/Importance of Effective Communication in Healthcare
2	Verbal/Nonverbal Communication
3	Written Communication
4	Elements of Motivational Interviewing/Shared Decision Making
5	Patient Interviewing Skills
6	Patient Medication Education
7	SOAP Note Basics (S/O), Giving/Receiving Constructive Feedback
8	Communicating with Persons with Mental Health or Behavioral Issues
9	Cultural Awareness and Sensitivity/Special Populations
10	Public Speaking/Giving Presentations
11	Group Dynamics
12	Personality Disorders and Other Challenging Interpersonal Interactions
13	Communicating with Other Healthcare Professionals & as a Team
14	NO CLASS – Thanksgiving Holiday
15	Transitions to Second Semester

Course Assignments

Self –assessments (True Colors, Interpersonal Skills Self-Assessment)
Writing professional emails
Patient interview/education video with self-reflection and SOAP note documentation
Presentation to a special population with self-reflection and peer feedback
Development of educational material as a team

Results

Class Demographics

- Total enrollment: 112 students (OS=92, OSDC=23)
- Men: 41%, women: 59%
- Mean age (in years): 25 (range: 19-53)
- Race/ethnicity
  - White: 41.4%
  - Black 3.6%
  - Asian: 32.4%
  - Hispanic: 14.4%
  - Other: 8.2%
- Bachelor's degree: 65%
- Prepharmacy requirements completed at a four-year program: 67%

Table 1. Pre/Post Scores (All Cohorts)

Skill	Pre (N=111)		Post (N=96)		P-value
	Mean	SD	Mean	SD	
Listening Skills	59.4	8.5	64.2	8.8	<0.001
Emotional Intelligence	63.5	16.8	69.1	15.1	0.013
Verbal Communication	64.1	12.0	69.4	12.5	0.002
Group Communication	60.7	15.4	65.8	15.9	0.018

Table 2. Post-Scores (OS vs OSDC)

Skill	OS (N=76)		OSDC (N=20)		P-value
	Mean	SD	Mean	SD	
Listening Skills	63.9	9.2	65.1	7.1	0.502
Emotional Intelligence	69.0	12.5	70.7	12.6	0.601
Verbal Communication	68.2	15.3	72.6	13.9	0.249
Group Communication	64.8	15.9	69.8	15.6	0.221

Student Comments

- I like that it put me out of my comfort zone and made us actively participate when I otherwise would not have.
- I liked that we had to do reflection papers with each video assignment. I feel I learned the most doing this part of the assignment.
- I liked that we were able to constantly do group work; it made us exercise our teamwork skills.
- I liked the opportunity to get out of my shell and practice speaking and communicating in front of a group of people.
- I really liked the breakup of the class having a lesson and then usually being able to practice what we learned. Like in improv or a group activity.
- The activities completed (as well as the expectations for completing assignments) took into consideration our present level of proficiency as health care professionals. This allowed us to focus our efforts on communication skills, rather than clinical knowledge.

Conclusions

- An innovative communications course using a variety of instructional techniques in each session to engage as many students as possible is effective in improving student pharmacists' self-perception of communication skills in four core areas
- This design can be used for both on-site and on-site plus distance campuses
- Students find this approach to be beneficial

Limitations

- Survey instrument not validated
- Only measured student perception of improvement in skill

Future Directions

- Map class sessions with the Modified Miller Model and survey students on their perceived knowledge level of specific skills using the Modified Dreyfus Model
- Assess skill development of both cohorts in relation to the percent of course content delivered from each campus

References: (1) Medina MS. Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes 2013. Am J Pharm Educ. 2013;77(8):Article 162. (2) Grow GO. Adult Educ Q. 1991;41(3):125-149. (3) Miller GE. Acad Med. 1990;65(9):S63-S67.