



Co-curricular Activity to Enhance Patient Assessment and Pharmacy-Physician Assistant (PA) Telephonic Interaction

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INTRODUCTION AND BACKGROUND

- Interprofessional education, simulation, and utilization of virtual patients are increasingly utilized to prepare students for Advance Pharmacy Practice Experiences (APPEs) and student Physician Assistants to become clinicians.

OBJECTIVES

- Design and implement a co-curricular activity to enhance PA student practice in ambulatory care setting through telephonic interactions with pharmacist students while assessing virtual patient cases.

METHODS

- Once a week, teams of 2-3 pharmacy students were provided access to a profile of 2-4 virtual patients and received related telephonic prescriptions from teams of 4-5 PA students. Pharmacy students received the patient profile a day in advance. PA students encountered standardized patients or received the profile a few minutes before the interaction with pharmacy students.
- Several interactions addressing different patients took place and pharmacy students were available to answer the phone, take prescription orders and discuss patient issues for 60 minutes each week. Each interaction, addressing a different patient, lasted for 5-10 minutes. Discussion topics included patient conditions/assessment, prescription orders/drugs & dosage selection, drug utilization review, labs and diagnostics, and clinical response.
- PA students' main responsibilities included diagnosis, ordering related laboratory & diagnostic tests, and prescription writing/communication. Pharmacy students' main responsibilities included prescription and patient assessment/medication management, and communication.
- Telephonic interactions, were preceded by a group discussion and debriefing moderated by faculty and followed up with an answer key provided.
- A student survey (22 questions) was completed to assess skills, abilities, and the learning experience using the Readiness for Interprofessional Learning Scale (RIPLS). Additional questions (7) were also added to assess other objectives such as student-student, student-faculty, and student-faculty areas for improvement.



RESULTS

- A total of 27 virtual patient profiles were designed and 151 students spent a total of 8 hours of assessment/telephonic interactions and approximately 3 hours each week in preparation and group interactions. Topics included cardiology, neurology, psychiatry, urology, nephrology, gastroenterology, orthopedics, pain management, pulmonology, hematology/oncology, dermatology, infectious diseases, rheumatology, and women health issues.
- A total of 143 students (94.7%) completed a five point Likert scale survey "Strongly Agree (5), Agree, Undecided, Disagree, Strongly Disagree (0)". The majority of students described the approach to be innovative (87.4%) and a favorable response of 4.0 or above was reported in 22 (81.5%) of the questions.
- Students reported benefits of this activity with regard to its impact on the 4 subscales (Teamwork & collaboration, Negative professional ID, positive professional ID, and Roles & Responsibility) of the RIPLS survey.
- Higher scores were reported for the activity's enhancement of student-student and student-content interactions as compared to student-faculty interaction.

Survey Items and Results	
1. Discipline:	<input type="checkbox"/> PA <input type="checkbox"/> Nursing <input type="checkbox"/> Pharmacy <input type="checkbox"/> Other _____ 71 PA students/71 Pharmacy
2. Year of birth:	_____ Average 27 yo
3. Gender:	<input type="checkbox"/> M <input type="checkbox"/> F PA 43%M+57F / Pharmacy 28%M+62%F
Participants responded to the following items by checking a box from the list below	
<input type="checkbox"/> Strongly Agree <input type="checkbox"/> Agree <input type="checkbox"/> Undecided <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly Disagree	
RIPLS Questions: Results are in grey shade "PA/Pharmacy students who agree or strongly agree "0-5"	
4. Learning with other students / professionals will make me a more effective member of a health and social care team	4.72/4.64
5. Patients would ultimately benefit if health and social care students/professionals worked together	4.75/4.53
6. Shared learning with other health care students/professionals will increase my ability to understand clinical problems	4.61/4.64
7. Communication skills should be learned with other health and social care students/professionals	4.73/4.64
8. Team-working skills are vital for all health and social care students/professionals to learn	4.80/4.51
9. Shared learning will help me to understand my own professional limitations	4.44/4.57
10. Learning between health and social care students before qualification, and for professionals after qualification, would improve working relationships after qualification, and for better collaborative practice	4.42/4.57
11. Shared learning will help me think positively about other health and social care professionals	4.34/4.46
12. For small-group learning to work, students/professionals need to respect and trust each other	4.69/4.74
13. I don't want to waste time learning with other health and social care students/professionals	1.68/2.03
14. It is not necessary for undergraduate/postgraduate health and social care students/professionals to learn together	1.75/1.97
15. Clinical problem solving can only be learned effectively with students/professionals from my own school/organization	1.71/2.60
16. Shared learning with other health and social care professionals will help me to communicate better with patients and other professionals	4.46/4.53
17. I would welcome the opportunity to work on small group projects with other health and social care students/professionals	4.00/4.21
18. I would welcome the opportunity to share some generic lectures, tutorials or workshops with other health and social care students / professionals	4.01/4.06
19. Shared learning and practice will help me clarify the nature of patients' or clients' problems	4.18/4.06
20. Shared learning before and after qualification will help me become a better team worker	4.30/4.44
21. I am not sure what my professional role will be/is	41.82/2.04
22. I have to acquire much more knowledge and skill than other students/professionals in my own school/organization	2.67/3.06
Additional Questions:	
23. The process provided an interactive/ engagement teaching experience	4.01/4.47
24. The process provided an environment that increased my interaction with classmate	4.23/4.47
25. The process provided an environment that increased my interaction with the instructor	3.13/4.10
26. The process provided an environment that stimulated thinking about related materials that may have been presented in the classroom	4.11/4.46
27. The Simulation exercise approach is innovative	4.06/4.37
28. What did you like best about the simulation exercise?	
29. What aspect of the simulation exercise would you change to make it a more effective learning tool?	

DISCUSSION AND CONCLUSION

- Interprofessional Education has a positive impact on enhancing clinical and communication skills of pharmacy and physician assistant students. This activity was perceived well by students and faculty.
- PA students have responded well to lab activities involving pharmacy students which strengthened their retention for learning prescription medication choices in the virtual patient cases provided. Student Pharmacist's reflection revealed enhanced clinical skills as well as communication skills, confidence, efficiency, and professionalism.
- Students indicated a need for more sessions and a video describing a model assessment and interaction with other healthcare providers.
- Areas for improvement included enhancement of technology and practice /lab set up, improved pharmacy response time when phone line is busy, structured instructors' feedback, and incorporation of additional TeamSTEP elements. The design and implementation were limited by class size.

Future session will incorporate more group meetings and briefing as well as making video recordings of the experience available to students. We also planning on sharing the pharmacy and PA curriculum by students to further enhance the expectations from

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TeamSTEPS at <http://teamsteps.org/> accessed June 20