The Merged Pharmacology Classroom: A Formative and Interdisciplinary Approach to Physician Assistant Education

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Introduction

Physician assistant (PA) students are required to demonstrate competence by applying didactic instruction on clinical patient assessment during summative testing and with patient encounters during the final phase of their training. Due to the potential for causing patient due to errors in medication selection and prescription/order communication, it is vital that PA students have practical experience with these competencies before starting clinical practice.1,2

This poster describes the implementation and analysis of the revision of the pharmacology curriculum at the University of Pittsburgh PA Studies Program. The Pharmacology 1 course is taught sequentially during the 2nd and 3rd (of 6) terms. Prior to this project, the instruction was lecture-based and did not offer opportunities for the interprofessional application of course material to practical patient scenarios.

The Merged Pharmacology Classroom

Features of this instructional model included:
- On-demand video lectures to be viewed prior to class
- Active learning activities during class meetings that used patient scenarios (see Figure 1) to develop the competencies of patient evaluation, selection of appropriate medications, and the interprofessional communication of medication orders and changes
- Communication methods included written, electronic (using a simulated electronic health record), and telephonic communication
- For telephonic prescribing, PA students partnered with student pharmacists for prescribing and medication clarification exercises.

Methodology

Evaluation of the course redesign was performed using the following plan:
- Comparison of the results of Student Opinion of Teaching Survey between the 2017 and 2018 offerings of the Pharmacology 1 and 2 courses
  - These anonymous surveys are administered in the last weeks of a corresponding term by a central office at the university.
  - Semi-structured interviews (n=9) of PA students after they had completed six months of clinical rotations to evaluate their perception of the Merged Pharmacology Classroom model and its impact on preparing them for their clinical education
  - Once the students were in clinical rotations, they were assigned to their PA mentor in an organized manner.
  - Interviews were recorded via field notes and transcribed inductively to identify themes.
- First year student pharmacists (n=113) were surveyed using a Likert scale on their perception of the impact of the experience on interprofessional collaboration

PA Student Opinion of Teaching Survey Items

Level of agreement is indicated for each of the following:
- Q1: The instructor stimulated my thinking.
- Q2: The instructor was enthusiastic about teaching the course.
- Q3: The instructor presented the course in an organized manner.
- Q4: The instructor maintained an environment where students felt comfortable participating.
- Q5: The instructor maintained an environment where students felt comfortable seeking assistance.
- Q6: The instructor provided helpful feedback.
- Q7: Assignments contributed to my understanding of the subject.
- Q8: Express your judgment of the instructor's overall teaching effectiveness.

Results

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<th>Course</th>
<th>2017 Pharm 1</th>
<th>2018 Pharm 1</th>
<th>2017 Pharm 2</th>
<th>2018 Pharm 2</th>
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Analysis of PA Student Interview Responses

Self-Guided Learning
- Ability to watch videos at own pace
- Re-watch videos as needed
- Schedule videos during times convenient to life

Application of Material
- Similar activities to clinical rotations
- Different patient presentations for different clinical decisions

Problem-Based Learning
- Working in groups helped with understanding

Summary of Survey Responses of Student Pharmacists
- 113 first year PharmD students interacted asynchronously with PA students to learn best practices in transcribing verbal prescription orders. Of the 80 respondents, 79% agreed that this exercise was an effective tool to improve interprofessional skills.

Acknowledgements

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References