



Quantifying community-based pharmacy student operational and clinical rotation (IPPE) activities

Ken Kunke, PharmD | Phillip Lawrence, PharmD | C. Leiana Oswald, PharmD
Erin Johanson, EdD | Michelle Hon, PharmD

Background

Pharmacy teams in community practice settings are an integral part of taking care of patients. Pharmacist's roles are expanding throughout the nation from providing immunizations, point of care testing, and comprehensive medication therapy management.

Roseman University is a 3-year accelerated Doctorate of Pharmacy program where the first- and second-year pharmacy students spend roughly 112 hours per academic year gaining experience in the community pharmacy setting.

These students help pharmacy teams perform many of these daily clinical and operational activities.

Objective

The purpose of this study is to identify and describe trends in the quantity and proportion of operational and clinical activities performed by students on introductory (IPPE) rotations.

Methods

Retrospective analysis of data from a 19-question electronic form submitted by first- and second-year pharmacy students, and confirmed by preceptors, at the end of each community rotation day from 2019 to 2022. Activities were categorized as either operational or clinical. Averages were calculated based off the activities reported divided by the number of days that the students were at the rotation site.

Clinical Tasks Tracked

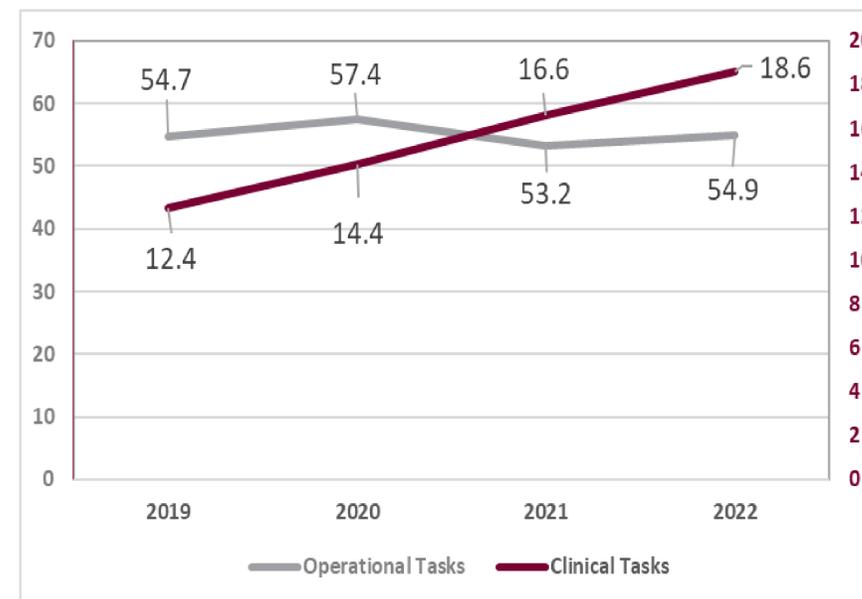
- Administered an immunization
- Contacted a doctor's office to clarify a prescription
- Counseled a patient on an OTC item
- Counseled a patient on nicotine/smoking cessation
- Performed screening assessment (i.e., blood pressure, blood glucose, etc.)
- Identified and recommended a more cost-effective medication
- Performed an intervention on a prescription drug
- Performed an intervention to increase the appropriate use of medications in a population (patient care calls, MTM, etc.)
- Counseled a patient on a prescription medication
- Recommended an alternative OTC product based on the patient's symptoms and needs
- Contacted a doctor's office to change a medication
- Recommended therapeutic lifestyle changes to a patient (dietary changes, exercise, etc.)

The authors have nothing to disclose concerning possible financial or personal relationships that may have a direct or indirect interest in the subject matter of this presentation.

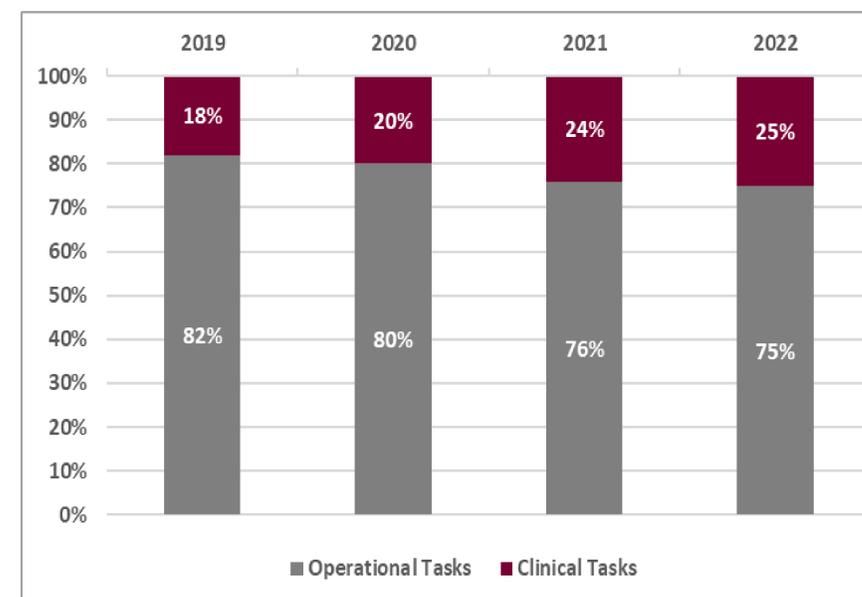
Operational Tasks Tracked

- Input a new prescription into the computer system
- Input a refill prescription into the computer system
- Resolved an insurance issue
- Transferred a prescription into the pharmacy
- Transferred a prescription out of the pharmacy
- Took a call for a new medication
- Physically filled and labeled a medication

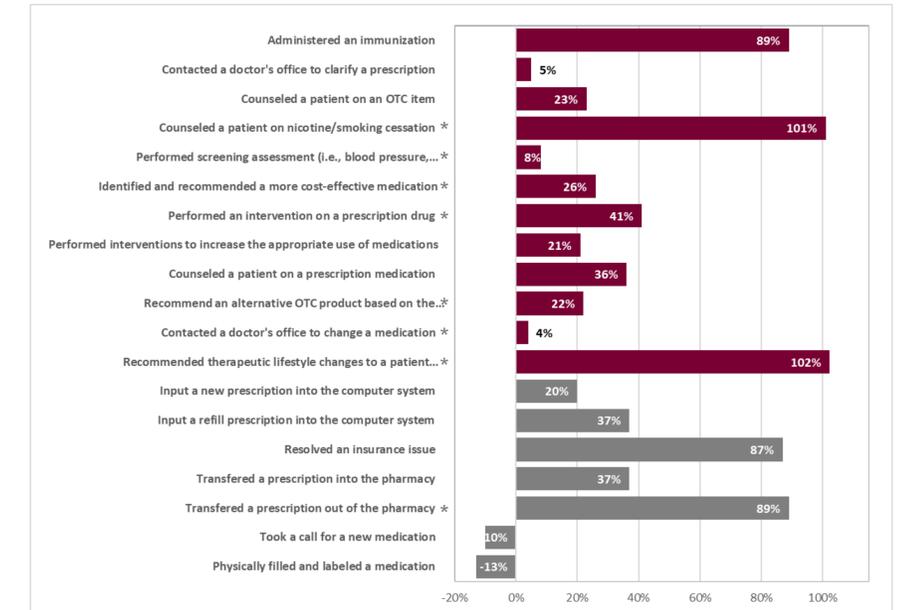
Number of Clinical and Operational Task per Visit



Proportion of Clinical and Operational Tasks



Percent Change in Clinical and Operational Tasks



Note: Starred (*) items – The average time per day that these tasks were performed by each student was less than one time.

Results

Data was collected from 15,798 community IPPE visits with each visit being eight hours long (126,384 total hours). From 2019 to 2022, the quantity of operational tasks increased by 0.3%. The quantity of clinical tasks increased by 50.4% during the same timeframe. The relative proportion of clinical tasks increased from 18.5% in 2019 to 25.3% in 2022. For the activities that were completed more than one time per day, the largest changes to individual tasks were observed in “filling and labeling a prescription” (operational, 13.3% decrease) and “administering a vaccination” (clinical, 89.3% increase).

Discussion

The COVID-19 vaccine was approved in December of 2020, which correlates to the 89% increase in the number of vaccines given from 2019 to 2022. Overall, the quantity of clinical services provided increased by 50.4%. However, the quantity of operational activities has remained the same. This aligns with a perception in the profession that clinical services in the community settings are generally add-on tasks rather than alternative tasks. It may also indicate a lack of staffing and increased reliance on students. The changes in student activities may or may not reflect changes in pharmacist and technician activities.

Implications

Determining the types of activities performed by students on community pharmacy rotations can inform pharmacy schools on curricular priorities. Additionally, if the same trends are observed with pharmacists and technicians, pharmacy leaders should consider the implications on safety, morale, and burnout from increased clinical services without a corollary decrease in operational tasks.