

Interprofessional Education  
Experience with Nurse  
Practitioner Students and  
Community-Based Pharmacists

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The learner will be able to :

- relate findings of this study to key competency domains of interprofessional education
- Develop creative interprofessional education experiences using the activity developed for this project and available resources
  
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- Judy K. Anderson discloses no financial sponsorship or conflict of interest associated with this project

# Interprofessional Education: What is it?

- *“Interprofessional education occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”*

WHO, 2010

# Interprofessional Education Collaboration Expert Panel (IPEC): Competencies

- Domains
  - Values / ethics for professional practice
  - Roles / responsibilities
  - Interprofessional communication
  - Teams and teamwork

# Literature: Interprofessional Education

- RN student / pharmacy student
  - Vrontos et al. (2011)
  - Hawkes et al. (2013)
- RN / pharmacist
  - Holden et al. (2010)
  - Drummond et al. (2012)
- Nurse practitioner / pharmacist
  - Makowsky et al. (2009)
  - Urbine et al. (2012)
  - Bennett (2012) – not research
- Nurse practitioner student / pharmacy student
  - Koo et al. (2014)
  - Wilbur & Kelly (2015)

# NP Insights from Pharmacist Collaboration: Methodology

- IRB approval – university approval, informed consents
- Participants –  $n = 26$  second-year students
- Setting – community pharmacy (3 state area in Midwest US)
- Demographics
- Data collection
- Data analysis
- Trustworthiness

# Results

**What are the most important insights gained from the collaborative experience with a pharmacist?**

**How did the experience of working with a pharmacist influence their perspectives about the prescribing role of an advanced practice nurse**

# Theme: Seeing Through New Lenses



Patterns



# Seeing the: Rainbow of Roles

# Counselor / Educator

- “Pharmacists take time to talk with patients to get an understanding of what education needs to be accomplished to promote favorable outcomes”
- “The pharmacist had to identify which way each different consumer learned the best. . .It was nice to see that the pharmacist did not rush these individuals [elderly persons] and only let them leave when they felt comfortable on how to take the medication.”

# Coordinator

- “Providers should take care to listen to the advice and questioning of a pharmacist, as they may have insight into something not previously foreseen in a patient’s medication list or condition. Collaboration and teamwork with a pharmacist can only improve the care patients are provided.”
- “The pharmacist was also a liaison between the patient and provider.”
- “During my experience I also observed how much pharmacists interact with prescribers to clarify prescriptions and ensure patient safety. Pharmacists also spent time answering questions from insurance companies regarding medication coverage. . . .”

# Advocate

- “Pharmacists work to ensure there aren’t drug discrepancies and also provide the best possible benefit to the consumer, medically, and financially.”
- “The pharmacists served as patient advocates in that they would go beyond their duties to represent the patients’ best interest. . .the pharmacist called a prescribing physician to suggest a possible change in prescription based on a patient concern.”

# Consultant

- “[name] indicated consulting patients about over-the-counter [OTC] medication choices is one of the most rewarding parts of his job. . . . May patients have very limited knowledge about OTC medications and are easily persuaded by advertisement. Many patients benefit from consulting with a pharmacist about drug interactions and side effects before choosing an OTC medication.”
- “This aspect of the pharmacist’ role [advisor] gave me a sense of how much people trust and respect pharmacists.”

# Manager

- “[the pharmacist] was often on the computer ordering more medications and supplies that were needed for the pharmacy. . .He had to decide which vendor to buy from when one vendor listed a lower price or when a medication was unavailable from one vendor.”
- “Providers and pharmacists must be educated about regulatory agencies to make them aware of the impact these regulations have on the provision of care to develop reasonable solutions for all.”

# Safety Net

- “They provide action as a professional second check and safety net in medications prescribed and dispensed. . .”
- “I found that the pharmacist really is the last line of safety before the medication is given to the patient. The pharmacist has so much knowledge about all kinds of medications. They use their judgment and knowledge to help provide safe medications to patients.”

# Direct Care Provider

- “Another role that the pharmacist has. . .is that of immunizer. The pharmacist is trained in providing these for patients at the pharmacy.”
- “The role of vaccination administration took 50% of one pharmacist’s time during this period.”
- This pharmacy chain performs point of care cholesterol screening and hemoglobin A1c. . .testing in this way can increase convenience for individuals and increase medication compliance and follow-up”

# Dispensing Medications

- “Finally, the biggest role of the pharmacist was checking prescriptions, dispensing medications, and double checking filled orders. This seemed to be a never-ending process with prescription after prescription being filled.”



Seeing the: Dark Clouds of Challenges

- “The number one issue is communication with the provider. If a provider needs the pharmacist, they simply call and can reach him. Conversely, if the pharmacist needs the provider, they call and get a secretary, who in turn reaches a nurse, who takes a message to have the provider get back to the pharmacist. Meanwhile, the pharmacist has an angry customer in front of him until there is a resolution to the issue. The communication feels like a one-way street when it should be two-way.”
- “Understanding the barriers experienced on the pharmacy side of the prescription offers insight into prescribing. The need to be diligent in prescribing responsibly was clearly demonstrated by this visit. A few situations we encountered could have been averted by the prescriber.”

- “New prescribers may face a plethora of challenges and problems in prescribing. These may include being unsure of what to order, calculating the correct dose, being aware of previous interactions or patient allergies, Medicare [government funding] issues and dealing with the drug-seeking patient. Pharmacists are able to help providers with many of these challenges.”
- “One important issue that prescribers need to be aware of is the constantly changing pharmaceutical industry rules and regulations. Medications are constantly getting reformulated, discontinued, or re-dosed. . .If the provider is not aware of these changes, prescriptions are ordered wrong, and the entire medication dispensing process gets prolonged for the patient.”



Seeing the:  
Winding Road of Technology

- “The systems are only as good as the people who use them. Providers need to be thorough and mindful when using electronic prescribing to be sure orders are entered for the correct patient, are accurate, and that instructions and communications are clear.”
- While electronic prescribing has provided many benefits, safety concerns remain. Benefits of electronic prescribing include clear legibility of prescriptions and the system makes it harder to fake or alter prescriptions. Problems include difficulty entering unusual instructions such as dose tapering or complex dosing regimens. The pharmacists reported a significant number of ‘drop down’ errors due to too many auto-populated functions and prescribers not paying attention to what they are selecting.”

- One issue identified by the pharmacist that might also affect me as a prescriber is the lack of a standard interfacing system between community pharmacies and health care providers.”
- E-prescribing helps to ensure safety through secure electronic exchanges between the prescriber and the pharmacies. E-prescribing also alerts prescribers and pharmacists to any drug interactions and allergy checks further promoting patient safety.”
- “. . .if the computers were not working, it was nearly impossible to fill prescriptions because they were dependent on them to view prescriptions. This was one downfall to the sophisticated computer setup.”



Seeing the:  
Interlocking Gears of  
Collaboration

- “It was nice to hear that the pharmacists are not afraid to make suggestions especially for a new provider, again displaying collaboration skills to ensure the best outcome.”
- “Observing a pharmacist in their role was very interesting for me. I really had no idea how a pharmacy runs and was intrigued by how much knowledge a pharmacist has and how much they actually do. They really are another health care member on our team. . . .I can see that I will have to rely on pharmacists. . . .”

- “When reflecting over all the information learned within this experience, this author learned to always write prescriptions considering the pharmacists’ understanding of it.”
- “I will . . .develop relationships with the pharmacists and physicians at my institutions so that I know who I can consult when I am unsure of how to prescribe a medication.”
- “The experience was a valuable experience. It reinforced, for me, the need for all medical professionals to work as a team. . .I think it is immeasurably valuable to participate in. . .the other professional roles that our practice will be involved with, affected by, and may affect. Changing our perspective can be so valuable.”

# Theme: Seeing Through New Lenses



- “This experience opened my eyes to what it was like behind a pharmacy counter. The pharmacist I was with said that everyone that is a prescriber should come and observe in a pharmacy to see what it is like.”
- “I gained immense knowledge in all the work that is required ‘behind the scenes.’ . . .this will influence my future practice because I now realize the importance of taking the extra minute to ensure that all the necessary components are on the prescription before faxing it to the pharmacy.”
- “Patients showed trust in the pharmacists and considered them an extension of their health care provider. I respect that pharmacists are diligent in ensuring consumer safety and willing to work in collaboration with the provider to ensure positive patient outcomes.”

# NP Insights from Pharmacist Collaboration:

- Limitations
- Next steps: Implications for practice, education, research

# Relationship to IPEC Domains

- Values / ethics for professional practice
- Roles / responsibilities
- Interprofessional communication
- Teams and teamwork

# Resources for Interprofessional Education

- Centre for Advancement of Interprofessional Education  
<https://www.caipe.org>
- National Center for Interprofessional Practice and Education  
<https://nexusipe.org>