Student and Resident Integration into Innovative Collaborative Pharmacy Practice Models

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Pharmacist Learning Objectives

1. Describe resident and student involvement in the medication reconciliation and discharge processes at an urban, teaching medical center.
2. Identify opportunities for student and resident research involvement associated with the medication reconciliation and discharge processes.
3. Discuss how interprofessional education (IPE) learning experiences prepare graduates to develop meaningful partnerships and add value to your institution.
4. Describe opportunities for student and resident involvement in an interprofessional group medical visit practice model.
5. Identify three opportunities to integrate student pharmacists and residents into a transitions of care (TOC) model that incorporates a community hospital and pharmacy.

Pharmacy Technician Learning Objectives

1. Describe the role of the pharmacy technician within the Pharmacy Practice Model Initiative.
2. Describe pharmacy technician involvement in the medication reconciliation and discharge processes at an urban, teaching medical center.

Institute for Healthcare Improvement (IHI) Triple Aim

- Improve outcomes
- Improve patient satisfaction
- Reduce cost of care

How Can Pharmacists Contribute to Achieving the Triple Aim?

Process Improvement
- Developing Qualities and Traits
- Research
- Building Partnerships
- Patient Care Roles

Care Team Integration
- Team-based approach to care.
- Positions pharmacists as providers.

Leveraging Pharmacy Technicians
- Urges technicians to handle non-traditional/advanced responsibilities.

Pharmacist Credentialing & Training
- Ensures pharmacists, residents, and students have training and credentials for activities performed now and in the future.

Leadership in Medication Use
- Pharmacists are integral in helping achieve the best outcomes.
Student Pharmacist and Pharmacy Resident Involvement in the Hospital Inpatient Setting

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Objectives

• Describe resident and student involvement in the medication reconciliation and discharge processes at an urban, teaching medical center.

• Identify opportunities for student and resident research involvement associated with the medication reconciliation and discharge processes.

Overview of Process Improvement

1. Reflect on your current process.
2. Identify, design, implement improved process.
3. Include students and residents.
4. Utilize partnerships to provide more services.
5. Assess the process through research.
6. Share research with stakeholders.

Partnerships

Philadelphia College of Pharmacy

Cooper University Hospital

Medication Reconciliation Process
Medication Reconciliation Process

Before
• Nurse/physician driven
• Lack of follow-up with objective resources (e.g., retail pharmacy, physicians’ offices)
• Inconsistent medication reconciliation

After
• Pharmacy-technician centered medication reconciliation program developed and implemented in January 2011

Medication Reconciliation Research

• With resident

• With student

• Helped with expansion of program

Medication Reconciliation Program Progress

• Implemented program throughout more services beyond internal medicine
  — Administration requests for program implementation throughout all disciplines (e.g., surgery, intensive care unit)

Medication Reconciliation Program Improvement Plans

• In-services to health care providers
  — Intention to increase quantity of medication reconciliation recommendations to be implemented before discharge
    • Requires close involvement of pharmacists and physicians

• Improvement of documentation
  — Standardization and consistency of pharmacist medication reconciliation notes

Discharge Process

Current Discharge Process

<table>
<thead>
<tr>
<th>Physician</th>
<th>Nurse</th>
<th>Pharmacist, Pharmacy Student/Resident</th>
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</thead>
</table>
| Enters discharge orders | Educates patients on medications (hospital and discharge) | Counsels patients on medication regimens
| Completes discharge summary and medication reconciliation | | — Creates medication cards
| | | — Teaches device use (e.g., insulin, inhalers)
| | | Completes discharge medication reconciliation

Inconsistent
Discharge Process
Current Research

- Residents and research students
  - Nurses’ attitudes and perspectives of discharge medication education and counseling
  - Patients’ attitudes and understanding of discharge medication education and counseling

Discharge Process
Future Plans

- Research
  - Focus groups
  - Identification of an “intervention”
  - Generalizability to the other disciplines
  - Grants to implement, study the intervention?

- Ensure APPE and IPPE students, residents more consistently involved in discharge medication counseling

Active Learning Question

All levels of pharmacy residents and students can be involved in the medication reconciliation and discharge process at any hospital with pharmacist supervision.

A. True
B. False

Interprofessional Education (IPE)
Student-Run Clinic Experience

**Linking Education with Practice**

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Learning Objective

- Discuss how interprofessional learning experiences prepare graduates to develop meaningful partnerships and add value to your institution.
Developing Qualities and Traits

Process Improvement

Research

Building Partnerships

Patient Care Roles

Description of Program

P1: Healthcare teams
(Interprofessional satellite sites)

P2: Community pharmacy practice
(Walgreens Pharmacy)

P3: Institutional pharmacy practice
(Cooper Hospital)

Direct patient care
(Student-Run Clinic: Camden Community Collaborative Practice)

# P1: 36
M1: 72

P2: 25
M2: 64

P3: 24
M3: 50

Meaningful Qualities We Are Shaping

The “Hidden” Curriculum

Collaborative behaviors/team work skills

Leadership skills

Understanding roles & responsibilities of different team members

Strong communication (written/verbal)

Patient-centeredness

Meaningful Partnerships We Are Building

Kirkpatrick’s Model of Training Evaluation

Level 5 - Return on Investment

Was the training worth the cost?

Level 4 - Results

Did the change in behavior positively affect the organization?

Level 3 - Behavior/Training Transfer

Did the participants change their behavior on-the-job based on what they learned?

Level 2 - Learning

What skills, knowledge, or attitudes changed after training? By how much?

Level 1 - Reaction

Did the participants like the training? What do they plan to do with what they learned?

Student-Run Clinic: Basic Pharmacy Practice Skills

Learning Domains:

- Medication dispensing
- Patient assessment
- Medication information
- Identification and assessment of drug-related problems
- Mathematics
- Ethical, professional, and legal standards
- Communication
- Counseling of patients
- Drug information analysis and literature research
- Promotion of health and wellness (public health)
- Familiarization with insurance/prescription drug coverage and patient assistance options
**Additional Outcomes**

Student-Reported Changed Behaviors

"If my mom was the patient...I would want a team of providers..."

"I finally now understand the 'prior-auth' process on both sides..."

"I have to write legibly because I get frustrated when I am in the dispensary and receive illegible prescriptions."

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**Active Learning Question**

Which of the following best describes a method by which interprofessional learning experiences prepare graduates to develop meaningful partnerships?

A. Multidisciplinary didactic lecturers expand students’ exposure to healthcare professions

B. Adoption of multiple roles within a student-run clinic provides hands-on experiences with the responsibilities of all team members

C. Student physicians and student pharmacists complete identical didactic coursework to facilitate teamwork

D. Student physicians serve as team leaders to realistically simulate clinical practice

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**Student Pharmacist and Pharmacy Resident Integration into a Diabetes Group Medical Visit**

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**Learning Objective**

- Describe opportunities for student and resident involvement in an interprofessional group medical visit (GMV) practice model.

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**Partnerships**

Philadelphia College of Pharmacy

Cooper University Hospital
What is a GMV?

Improve Outcomes of Chronic Illness


Challenges with Traditional Office Visits for Patients with Diabetes

Diabetes Care

Self-Management Education

Psychosocial Issues

Medication Management


Benefits of GMV for Patients with Diabetes

Increased time for education and self-management teaching

Improved clinical outcomes

Improved knowledge of diabetes health behaviors

Improved patient and provider satisfaction

Increased adherence to American Diabetes Association process-of-care indicators


Cooper University Hospital

Urban Health Institute (UHI) & Cooper Advanced Care Center (CACC)

• UHI focuses on health care delivery to underserved patients of Camden, New Jersey
• Supported in part by a grant from the Nicholson Foundation
• GMVs initiated at the CACC in June 2013
• Current GMVs exist for diabetes, sleep apnea, headache, hand surgery, podiatry

Diabetes GMV

Multidisciplinary Team Approach

Cooper University Hospital

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Diabetes GMV

Overview

• Patients referred by endocrinologist and primary care providers
• Morning/afternoon of 3-4 sessions: 1-hour long visits with 8-12 patients/hour
• Patients sign group confidentiality agreement at initial visit
• APN, clinical pharmacist, and LPN serve as patient navigators
Diabetes GMV
Role of Patient Navigators

Pre-GMV
• APN and clinical pharmacist prepare “huddle note” for every scheduled patient (includes past medical history, previous labs, current medications, etc.)
• Create educational “toolkits” for use during education sessions

During GMV
• Interview patients based on questionnaire to extract pertinent information related to diabetes, hypertension, and dyslipidemia
• Facilitate patient education sessions based on curriculum
• Create treatment plan in conjunction with endocrinologist

After GMV
• Document patient encounter, order medications and laboratory tests

Pre-GMV
• Serve as patient navigator under supervision of preceptor
• Create treatment plan in conjunction with preceptor and endocrinologist
• Create and facilitate patient education sessions under supervision of preceptor

During GMV
• Document patient encounter in medical record
• Order medications and laboratory tests (pharmacy resident)

Active Learning Question
Which of the following best describes the role pharmacy students and/or residents can play in a GMV?

A. Serve as patient navigators to facilitate completion of the visit questionnaire
B. Participate in creation and delivery of patient education toolkits
C. Participate in creation of group visit treatment protocols
D. All of the above

Learning Objective
• Identify three opportunities to integrate student pharmacists and residents into a transitions of care (TOC) model that incorporates a community hospital and pharmacy.
Developing Qualities and Traits

Process Improvement

Research

Building Partnerships

Patient Care Roles

Transitions of Care (TOC)

Increase Access

Improve Use

TOC Partnerships

Mercy Philadelphia Hospital
A member of Mercy Health System

SunRay Drugs

Philadelphia College of Pharmacy

Inpatient Opportunities

• Identifying Patients
  – Admission lists
  – Interprofessional rounds
  – Priority lists from insurers
• Recruiting/Enrolling Patients
• Communicating with Outpatient Pharmacy
  – Medication reconciliation
• Data Collection/Reporting

Community Pharmacy Opportunities

• Dispensing
• Making follow-up phone calls
• Data collection
• Scheduling MTM session
• Making refill reminder phone calls
• Creating marketing materials

Patient Care-
Medication Therapy Management (MTM)

Complete medication review (CMR)
Personal medication record (PMR)
Medication-related action plan (MAP)

Intervention and/or referral
Documentation and follow-up

Community Pharmacy Opportunities

Logos obtained from SunRay Drugs, Mercy Philadelphia Hospital and Philadelphia College of Pharmacy.

Image adapted from http://events.r20.constantcontact.com/register/event?llr=pgcxumfab&oeidk=a07e78v5tetf96cd86b

Image adapted from http://missionbayhospitals.ucsf.edu/our-facilities/childrens-hospital/acute-care/patient-room

Image adapted from http://www.sunraydrugs.com/locations/

Clinical Pharmacy Opportunities

- Conduct medication reconciliation
- Perform physical assessments
- Provide medication and disease state education
- Assess regimen for drug therapy problems
- Create complete and accurate medication list

Clinical Pharmacy Opportunities

- Develop a collaborative action plan with SMART goals
  - SMART: Specific, Measurable, Achievable, Realistic, Timely
- Create resource list of referral sources and aid patients with referrals
- Document encounter
- Communicate with healthcare professionals
- Schedule follow-up appointments
- Make appointment reminders

Active Learning Question

Which of the following tasks can a student pharmacist and/or pharmacy resident complete?

A. Recruiting patients
B. Conducting comprehensive medication reviews
C. Performing physical assessments
D. All of the above

How Can Pharmacists Contribute to Achieving the Triple Aim?

- Care Team Integration
  - Team-based approach to care.
  - Positions pharmacists as providers.
- Leveraging Pharmacy Technicians
  - Urges technicians to handle non-traditional/advanced responsibilities.
- Pharmacist Credentialing & Training
  - Ensures pharmacists, residents, and students have training and credentials for activities performed now and in the future.
- Leadership in Medication Use
  - Pharmacists are integral in helping achieve the best outcomes.

Added Value of Student Pharmacists and Pharmacy Residents

- Patient Care Roles
  - Increase preceptor time to focus on other clinical tasks.
  - Integrate into clinic flow and decrease preceptor administrative time = ability to see more patients.
- Building Partnerships
  - Contribute to model of interprofessional practice/education.
- Research
  - Evaluate current practice and identify opportunities for improvement.
  - Contribute to scholarship endeavors.

Dealing with Challenges

- Younger vs. older students
- Varying level of competence
- Upfront time investment
- Dealing with a difficult student
Conclusion

- Pharmacists can contribute to achieving the healthcare triple aim through the PPMI.
- Student pharmacists and pharmacy residents can add value to your institution through their participation in collaborative pharmacy practice models.
- Student pharmacists and pharmacy residents can contribute to patient care roles, research, and building partnerships.