



**UNIVERSITY OF SOUTH FLORIDA  
GERIATRIC WORKFORCE  
ENHANCEMENT PROGRAM  
(GWEP)  
FACULTY  
DEVELOPMENT  
MASTERWORKS  
SERIES**

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Providers of  
Continuing Education

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# Geriatrics Rocks!

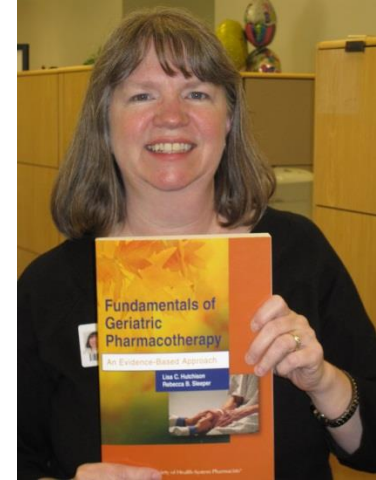
(in Little Rock)



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# Disclosure

- Co-editor of geriatric pharmacotherapy textbook “Fundamentals of Geriatric Pharmacotherapy” 1<sup>st</sup> and 2<sup>nd</sup> editions



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# Objectives




- Describe opportunities for didactic and active learning activities with Geriatric emphasis
- Outline the components of four interprofessional education opportunities focused in Geriatrics

# Evolution of Geriatric Education at UAMS

**UAMS**  
COLLEGE OF  
PHARMACY  
UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES



**Donald W. Reyn**



# Geriatric Pharmacy Education

- Integrated Curriculum
- Stand-alone Geriatric Elective
- Other Companion Electives
  - Death and Dying
  - Drug-Induced Diseases
- Extracurricular Opportunities
  - Summer Research Scholarships

# Early Didactic Curriculum

- **Communications**
  - Older Adults
  - Lectures/Simulations
- **Clinical Pharmacokinetics in Older Adults**
  - Absorption, Distribution, Metabolism & Excretion problems illustrated by cases
  - Pharmacodynamics and Interactions
  - How to evaluate new drugs

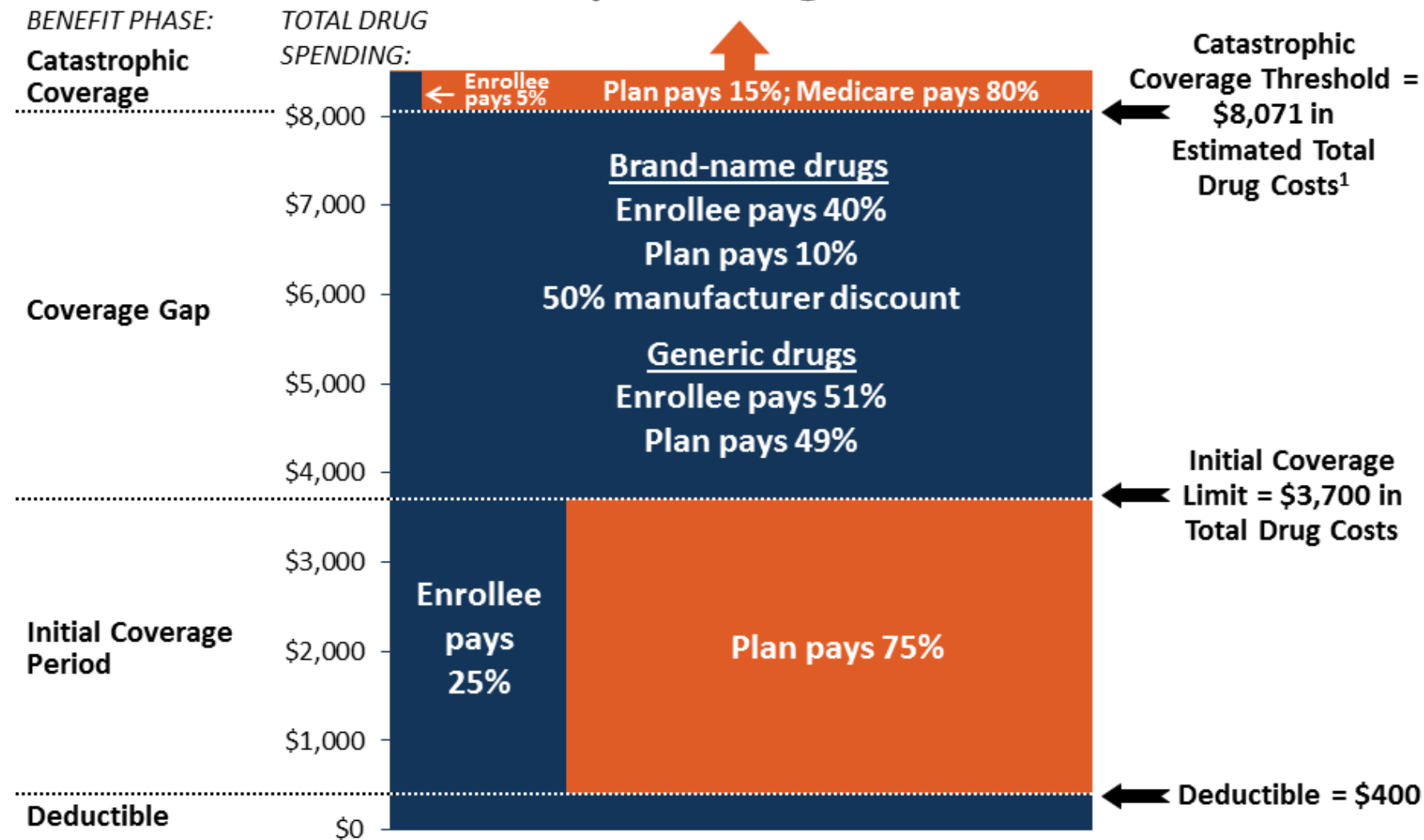
# U.S. Healthsystems for Pharmacists

- Medicare Part D
  - 2 hour lecture
- Walk through Medicare.gov “Find health & drug plans”
  - Middle income, Low income, Dual eligible, Low income subsidies, Medicare Advantage
- Medication Therapy Management
  - History of policy changes pushed by needs of older Americans



Figure 5

# Standard Medicare Prescription Drug Benefit, 2017



NOTE: Some amounts rounded to nearest dollar. <sup>1</sup>Amount corresponds to the estimated catastrophic coverage limit for non-low-income subsidy (LIS) enrollees (\$7,425 for LIS enrollees), which corresponds to True Out-of-Pocket (TrOOP) spending of \$4,950, the amount used to determine when an enrollee reaches the catastrophic coverage threshold in 2017.

SOURCE: Kaiser Family Foundation illustration of standard Medicare drug benefit for 2017.

# Case Study #1

Ernest is a widower who lives in Mena, AR, 71953 and will turn 65 years old next month. He has signed up for Medicare Parts A/B. He has no outpatient drug coverage and is not eligible for additional help (LIS). He would like information on stand-alone PDPs. He uses Walmart pharmacy.

Current Meds: metoprolol 50mg bid, Diovan HCT (generic) 160/12.5 daily, Advair Diskus 250/50 bid

# Case Study #2

- Ms. Wanda has both Medicare & Medicaid and she lives in Zipcode 72204. She asks which Part D plan is best for her. She has been using the Medic Pharmacy on 12<sup>th</sup> St in LR.
- Meds: Citalopram 20 mg Daily, Donepezil 23mg HS, Lorazepam 0.5 mg BID PRN anxiety, Toviaz 4mg HS

# Case Study #3

Ms. Joanne recently moved in with her daughter (Zipcode 72223). She asks what MA plans would be best for her in new location. She does not receive LIS, but wants to use Cornerstone or Kroger Pharmacy. Interested in dental and vision coverage.

Meds: Lisinopril 20mg daily, Crestor 10mg daily, Toprol XL 50mg daily, Sertraline 50mg daily, Pradaxa 150mg BID

# P3 Year: Required Courses

- **Therapeutics: Neurology/Geriatrics Section**
  - Neurology-Epilepsy, Headache, Sleep
  - Geriatrics Pharmacotherapy Concepts
  - Alzheimers Disease and other Dementias
  - Parkinsons Disease
  - Pressure Ulcers
- **Patient Assessment**
  - Family including Grandparents



# Geriatric Therapeutics

## Foundational Lectures

- Biology of Aging
- Geriatric Assessment (Active Learning)
- Medicare, Medicare Part D Refresher
- Adverse Drug Events
- Quality Prescribing
- Comprehensive Medication Review
- Nursing Homes & Consultant Pharmacy
- Hospice & Palliative Care



# Varied Lectures from Student Interests

- Geriatric Syndromes
  - Dementia/Delirium
  - Falls
  - Malnutrition
  - Sleep
- Health Promotion/Disease Prevention
  - Immunizations
  - Vitamins/Dietary Supplements
  - Nutrition

# Elective Active Learning Activities

- Adopt-A-Patient
- Medicare Part D Planning Clinic
- Adverse Drug Events Journal Article
- Geriatric Medication Simulation Game



# Adopt-A-Patient

- 3 visits (1 per month) with older adult
  - Visit 1: Learn about person
  - Visit 2: Perform assessments
  - Visit 3: Review medications
- Presentation as the “final” for the course
  - Description of person and visits
  - Provide results and interpretation of assessments
  - Review medication list with assessment
  - Review a disease state and its treatment

# Medicare Part D Planning Clinic

- October/November Open Season
- Organizing the Clinic
  - Days, Scheduling, Marketing
- Preparing for the Clinic
  - Handouts, Calls, Signs
- Providing the Clinic
  - A 4 hour session replaces 2 hours class time

# Adverse Drug Events Journal Article

- Presentation uploaded in BlackBoard
- Critique 4 other Students' Presentations
- Upload in BlackBoard

# Geriatric Medication Game



# Intergenerational Volunteer Award



# Advanced Experiential Opportunities

- Institute on Aging Rotations
  - Acute Care Geriatric Consult Service
  - Ambulatory Care Longevity Clinic
- Monthly rotation
  - Required 160 hours

# Joint Rotation Activities

- Journal Club
  - Select articles from master list
  
- Adopt-A-Patient
  - Visit weekly in patient home or clinic X 3
  - Presentation during 4<sup>th</sup> week

# Other Exposures-LTC

- State Veterans Nursing Home
- 1-2 days
  - Greenhouse philosophy
  - 8 buildings will have 12 residents in each





# Post-Graduate Education

- PGY1-M.Ed. Geriatric Pharmacy Residency (over 2 years)
- PGY2 Geriatric Pharmacy Residency



# Other Exposures

- Hospice-1-2 days
  - Visit to Acute Hospice
- Coumadin Clinic
  - Longevity Clinic
  - 4 hour clinic
- Writing Assignment
  - AGEC Newsletter Column
  - Teaching Case

# IPE Activities

- Home Health Simulation
- Pharmacotherapy Workshop
- Palliative Care/Hospice
- IPE Grant Mental Health

# Home Health Simulation

- Medicine/Nursing/Pharmacy
- Clyde Jenkins
- Home visits & Staffing meeting

# UAMS

## COLLEGE OF PHARMACY

UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

# Simulation Fosters Interprofessional Skills among Nursing, Pharmacy and Medical Students

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University of Arkansas for Medical Sciences

\*College of Pharmacy, #College of Nursing, + College of Medicine

## Background

Opportunities to learn effective team skills in the entry-level curricula are sparse. We sought to integrate human patient simulators and an interprofessional educational experience to train nursing, pharmacy and medical students assessment and interprofessional skills in their geriatric curricula.

## Methods

Two unfolding cases provided simulations for nursing students (N4s) in their geriatric course. N4s alternatively performed assessments on the simulated patient or watched via remote camera. Following this, pharmacy (P4s) and medicine (M4s) students joined the N4s for a simulated staff meeting. N4s presented their findings and assessment, answering questions from the other disciplines. The staff meeting ends with a delineated plan of care for the patient. The case continues to unfold with the patient's arrival at the simulated emergency department. N4s perform initial assessment of the simulated patient and are joined by the P4s and M4s to continue assessment and implementation of a new plan of care. The simulation ends with initiation of antibiotics for treatment. At the conclusion of the simulation, students meet to discuss what went well and what could be improved.

## Timeline

### Morning Session

N4 students start alone  
Orient & cover objectives  
Split into 2 groups  
Listen to scenarios  
3 students assess pts  
One pt is a home health pt  
One pt is in the hospital  
Others watch on monitor  
Re-group and debrief

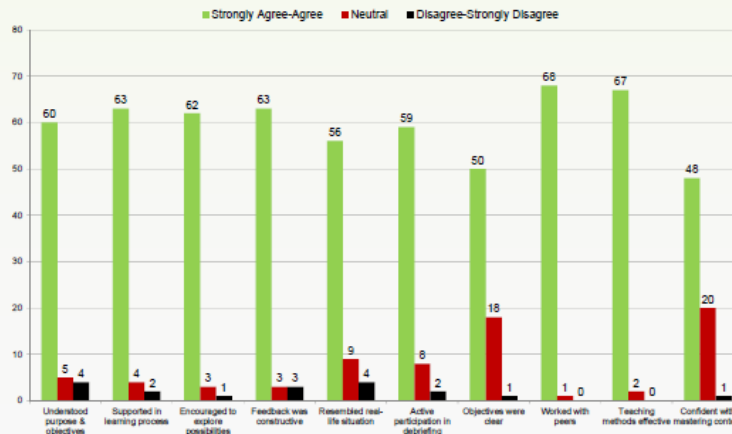
### Afternoon Session

M4 and P4 students join group  
Orient & cover objectives  
Listen to home health scenario  
Conduct Home Health Staffing  
Fast-forward 5 weeks to next scenario  
3 N4 students assess pt in ER  
Other N4s watch on monitor  
M4 & P4 students join simulation  
Re-group and debrief



## Results

69 students participated in 6 sessions of 9-13 students. There were 53 N4s, 7 P4s, 3 post-graduate year 1 pharmacy residents and 6 M4s.



## Conclusion

Combining high-fidelity patient simulations of geriatric patients with interprofessional interactions was well-received by students from nursing, pharmacy and medicine. This process allows students from multiple professions to learn and practice different team skills prior to beginning their professional practice.

## Reference

Unfolding Cases adapted from the National League for Nursing Simulation Innovation Resource Center

# Interprofessional Simulation Experience

Berryman, S.N., DNP, CNS-BC<sup>1</sup>; Ragsdale, P.S., MSN, CNS-BC<sup>1</sup>; Hutchison, L.C., Pharm D<sup>2</sup>; Bilbruck, T.J., MD<sup>3</sup>; Huff, D.C., MNSc<sup>1</sup>; RN; Jennings, J., MSN, RN; Lofton, T., MSN, RN<sup>1</sup>; Rainey, L.M., MSN, RN

## Problem and Purpose

The expectation for healthcare professionals to work collaboratively is complicated by the fact that students are educated almost exclusively within their own discipline. The purpose of this project was to examine the impact of shared simulation learning experiences for students from multiple healthcare disciplines.

## PICO Format Question

In pre-licensure nursing, pharmacy, and medical students, does shared participation in human simulation scenarios provide a more meaningful, authentic and effective educational experience than traditional methods of printed material and role play exercises to learn communication and team building skills?

## EBP Model/Process

The ACE Star Model of Knowledge Transformation containing elements of discovery, summary, translation, integration, and evaluation is the model used.

## Relevant Literature

- Human patient simulations provide opportunities for learning and practicing complex skills in a safe environment.
- *Unfolding Cases* help students understand the evolving and complex care needs of the geriatric client and family (National League for Nurses, 2010).
- *Future of Nursing* report (Institute of Medicine, 2010) emphasized teamwork and collaboration in undergraduate education.
- Shrader (2011) reported pharmacy and medical student satisfaction with shared simulated learning exercises.

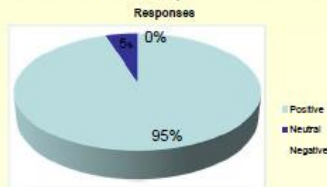
## Student Participants

- Nursing
- Pharmacy
- Medicine

## Results



The teaching methods used in the simulation were helpful & effective



## Interprofessional Team Conference



## Method

- Teams consisting of 7-10 nursing students, 1-2 medical students, 1-2 pharmacy students, and 3 faculty facilitators rotated through the simulated scenarios.
- *Unfolding Case* character selected for the was Red Yoder.
- Nursing students simulated an initial home visit to assess Mr. Yoder's diabetic foot ulcer, then shared assessment findings with medical and pharmacy students in a team conference and students collaboratively developed a plan of care.
- Interprofessional conference consisted of nursing, medicine, and pharmacy students who assessed Mr. Yoder in an ED simulation and worked through the scenario involving typical presentation of sepsis.
- Information was communicated using the SBAR framework (Situation, Background, Assessment and Recommendation) and each scenario was followed with debriefing to allow students to verbalize their perceptions and findings.



## Outcomes

- Debriefing was rich with conversations about diagnostic conclusions, treatment plans, best practice standards, patient resources, and scope of practice.
- In reflective notes later submitted to faculty, students described having a deeper understanding of the inter-related roles of the healthcare team members.
- Most students suggested there should be more experiences like this throughout their training.



## Conclusions

- Positive outcomes from this project indicate innovative interprofessional simulations are more meaningful, realistic, and effective strategies than readings and role play in developing interdisciplinary communication and team work.
- Exercises like these could provide pre-licensure students with an opportunity to learn essential skills needed for collaborative practice.

## References

1. Institute of Medicine, 2010
2. National League for Nurses, 2010
3. Shrader, 2011

# Pharmacotherapy Workshop

- Medicine/Pharmacy
- Beers List Review & Application
- Rotate monthly presentation with
  - Clinic pharmacist
  - Pharmacy residents (Teaching Certificate)

# CASE B

Mr. X is a 92M with HTN, CAD (s/p DES to LCx 10y ago), COPD, diabetes, depression, and moderate dementia presenting for a new patient visit unaccompanied. Only complaints are fatigue, occasional lightheadedness, constipation, and urinary retention.

**Height:** 5'10"

**Weight:** 158 lbs

**Allergy:** NKDA

- **Vitals:**

- BP: 165/88
- HR: 50 bpm
- RR: 16
- O<sub>2</sub> Sat: 99% on room air

- **Current medications:**

- Metoprolol tartrate 50mg po BID
- Lisinopril 10mg po daily
- Aspirin 81mg po daily
- Clopidogrel 75mg po daily
- Simvastatin 20mg po qhs
- Advair 250/50 1 puff BID
- Glipizide 5mg po daily
- Paroxetine 50mg po daily
- Donepezil 10mg po daily
- Ranitidine 150mg po BID
- Terazosin 5mg po qhs
- Acetaminophen 650mg po TID
- Loratidine 10mg po daily

**BMP:**

Na: 130

K: 4.4

Cl: 102

CO<sub>2</sub>: 25

BUN: 21

Scr: 1.5

Glucose:

67

A1C: 6.2

**CBC:**

WBC:

5.2

Hgb: 14.7

Hct: 45.1

PLTs: 316



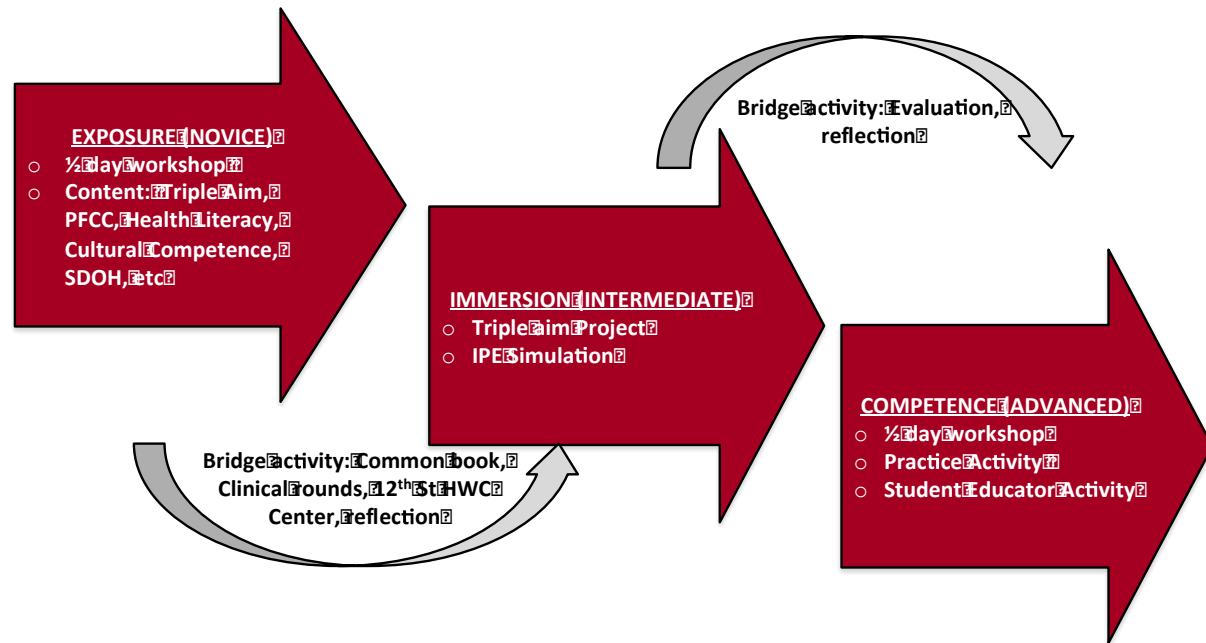
# Palliative Care/Hospice

- Medicine/Pharmacy
- Weekly Discussion or Site Visits

# IPE Curriculum at UAMS

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## IPE Triple Aim Curriculum at UAMS



# IPE Grant Mental Health

- Nursing/Pharmacy students
  - 4<sup>th</sup> year Pharmacy students
  - APRN Nursing students
- Modules
  - Depression screening/diagnosis/mgmt
  - Pharmacologic Rx
  - Cultural Issues
- Simulation—2 hour
  - Evaluate patient and develop care recommendations
- Patient Assessments—2017-18

# Integration of IPE Grant into Existing UAMS Curriculum

EXPOSURE PHASE (KEY CONCEPTS)	IMMERSION PHASE (IPE TEAMS)	COMPETENCE PHASE (ENTRY INTO PRACTICE)
Triple Aim IPE Domains Patient-Centered Care Social Determinants of Health	Patient Care Improvement	Complete a Project Activity-Simulation Health Fair etc
<b><u>ADDITIONAL:</u></b> <b>Integrated IPE Curriculum</b>	<b><u>ADDITIONAL:</u></b> <b>Integrated IPE Curriculum</b>	<b><u>ADDITIONAL:</u></b> Integrated IPE Curriculum
<b>Exposure Workshops</b> <b>Depression Screening &amp; Service Learning</b>  <b>Faculty developed: Mental Health Disparities &amp; Geriatric Pharmacology Responsive Design</b>	<b>Nurse-Pharmacist IPE Teams</b> <b>develop a proposal to eliminate mental health disparities in older persons using online discussions</b>  <b>Simulation Mental Health Scenarios</b>	<b>GPNI Series</b>  <b>Interprofessional Service Learning Activity with Community Dwelling Older Persons</b>

# GWEP

## Arkansas Geriatric Education Collaborative

- Health Professionals & Paraprofessionals
  - Mentors & Scholars program
    - Online self-study
  - Video-conferences
    - Quarterly 2 hour continuing education
  - Summer Institute for Faculty
    - Annual 1 week program-didactic + experience
  - Conferences
    - APRN Geriatric Pharmacology-annual
    - Geriatrics & LTC Update-annual
    - Geriatric Grand Rounds-weekly



# Arkansas Geriatric Education Collaborative Community Programs

- Diabetes Self-management
- A Matter of Balance
- Alzheimer's Disease Experience
- Quarterly Newsletter

# References/Resources

Hutchison LC, Sleeper-Irons RB, eds. Fundamentals of Geriatric Pharmacotherapy: An Evidence-Based Approach. 2<sup>nd</sup> edition. Bethesda, MD: American Society of Health-system Pharmacists, 2015

Hayes C, Hutchison LC. Development and evaluation of a student-led Medicare Part D Planning Clinic. Consultant Pharmacist, 2013; 28:237-42

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Hutchison L, Berryman S, Bilbruck T, Johnson S. Saving Red's Toe: Fostering Interprofessional Collaboration in Assessment and Care Planning. MedEdPORTAL; 2014. Available from: [www.mededportal.org/publication/9768](http://www.mededportal.org/publication/9768)

Estus, EL, Hume, AL, Owens, NJ. Innovations in Teaching: Pharmacotherapy in Geriatrics: Improving Student Perception and Knowledge Through an Active Learning Course Model. Am J Pharm Educ 74(3):Article 38 (2010)

National Center for Interprofessional Practice and Education. <https://nexusipe.org/>

Arkansas Geriatric Education Collaborative. <http://www.agec.org/>