

Clinic to Kitchen: Blending Pharmaceutical Science and Pharmacy Practice with Culinary Medicine

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BACKGROUND

- Nutritional interventions have well-established benefits in the management and prevention of chronic illness
- Pharmacy and other Allied Health curricula neglect or generally lack basic nutritional education^{1,2}
- Pharmacists are a readily accessible and ideal resource for health and wellness promotion³
- Lack of knowledge, training, time, and low self-efficacy have been identified as major barriers to providing nutritional counseling and lifestyle education^{4,5}
- Robust nutritional education must blend science and practice
- Development of basic culinary skills can equip pharmacists with the ability to effectively coach patients and serve as role models
- Medical education has incorporated the “teaching kitchen” concept, yielding positive patient outcomes⁶

OBJECTIVES

- Design and implement a nutrition elective combining pharmaceutical and biochemical sciences, pharmacy practice and culinary education
- Develop foundational culinary literacy and skills in a kitchen setting through live demonstration and hands-on techniques

COURSE DESIGN

- A 2-credit elective course offered to second- and third-year pharmacy students
- Course designed and taught by faculty from Pharmaceutical Sciences and Pharmacy Practice departments
- Course components 1) Knowledge, 2) Skills, 3) Application, 4) Implementation
- Hybrid of self-directed, didactic, and skills-based learning
- Modular, step-wise design
- Project- and team-based, small group learning
- Mapped to Entrustable Professional Activities (EPAs)
 - Patient Care Provider
 - Interprofessional Team Member
 - Information Master
- Addresses all components of the Pharmacists’ Patient Care Process (PPCP)

Knowledge

Pharmaceutical perspectives

- Pathophysiology
- Determinants of health

Biochemical theories

Therapeutic aspects of nutrition

Drug-induced nutritional depletion

Drug information skills

Nutrition assessment

EPA Domains

- ✓ Patient Care Provider
- ✓ Interprofessional Team Member
- ✓ Information Master

Skills

Culinary skill development

- Teaching kitchen
- Expert chef guidance

Culinary knowledge

- Ingredients and substitutes
- Budget-friendly meal planning

EPA Domains

- ✓ Patient Care Provider
- ✓ Information Master

Application

Skills laboratory setting

Patient case assessment

- Nutritional interventions
- Documentation of care plan

Communication skills

- Motivational interviewing
- Simulated patient education

EPA Domains

- ✓ Patient Care Provider
- ✓ Interprofessional Team Member
- ✓ Information Master

Implementation

Community engagement

- Patient interviewing
- Drug-food / nutritional supplement interactions
- Patient education
- Cooking demonstration

EPA Domains

- ✓ Patient Care Provider
- ✓ Interprofessional Team Member
- ✓ Information Master



DISCUSSION

Course designers planning to collect data

- Patient knowledge and outcomes
- Practitioner comfort in providing nutritional education

Future endeavors

- Use elective as template to transition to core curriculum
- Continuing education workshops (“train the trainer”)
- Patient workshops in teaching kitchen setting

CONCLUSION

Evolution of healthcare provided opportunities for pharmacists to deliver services combining scientific nutritional principles, behavior, and medicine to enhance and engage patients to improve overall health



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