

**Integrating Health Behavior Theory
across Pharmacy Curricula**

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Carol J. H. Kobulnicky, BSPharm., Ph.D.
University of Wyoming

Nate Rickles, Pharm.D., Ph.D., BCPP
Northeastern University




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Learning Objectives

1. Identify health behavior theories applicable for student learning and application across the curriculum.
2. Describe ways to engage pharmacy students in learning and applying theory in their courses and eventual pharmacy practice.
3. Examine models for the integration of health behavior theories across a pharmacy curriculum and how such integration could be assessed.
4. Discuss challenges and opportunities for integrating theory throughout a pharmacy curriculum.




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Why integrate theory across the curriculum?

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Key Behavior Theories

- Individual Models:
 - Health Belief Model
 - Theory of Reasoned Action/Planned Behavior
 - Self-Regulation Theory (Leventhal)
- Interpersonal Models:
 - Transtheoretical Model (Prochaska)
 - Role Theory
 - Health Collaboration Model (Svarstad & Sitter)
- System Models:
 - PRECEDE-PROCEED planning model
 - Diffusion of Innovations Theory
 - Andersen Healthcare Utilization Model

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What makes a health behavior theory good for classroom use?

- Extent of health science literature in support of theory ability to predict behavior
- Extent of pharmacy practice literature using theory
- Its simplicity and ease of interpretation for student learning
- Its application to different aspects of pharmacy practice- clinical, social and administrative
- The ability for the theory to support larger themes emphasized in coursework

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Integrating health behavior theories across the curriculum

- Expose students to core theories early, then application can follow to explain patient and/or provider behaviors.
 - Help students to link theory with practice, realize the significance of theoretical knowledge, apply the knowledge (Katajavuori, Lindblom-Ylänne, Hirvonen, 2006)
- Potential courses for integration: psychosocial aspects of pharmacy practice, communication, healthcare systems, pharmacy management, pharmacotherapy, self-care, pharmacy law, biostatistics, research methods, experiential
- Curricular Mapping

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Health behavior theories applied across the curriculum

- Examples:
 - Student exposed to the Health Belief Model in third year can then see how beliefs and other motivators can affect patient non-adherence to therapy and negative therapy outcomes.
 - Student exposed to Transtheoretical Model of Change early can apply the theory to understand the need for patient-centered treatment plans.

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Teaching Theory to Pharmacy Students: Problems

- Some students desire to pull theories and models together to make “one big model”
 - How to help students realize and understand explicit limits of models and theories?
 - Ex: Individual versus organizational level

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Teaching Theory to Pharmacy Students: Problems

- Considerable resistance from students regarding theory and its relevance to practice
- Incorrect assumptions made by students
- Difficulty understanding the relationships between variables--predictors and outcomes
- Difficulty applying theoretical concepts to a problem/situation

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Teaching Theory to Pharmacy Students: Possible Solutions

- Present entire theory or abbreviated, in some way, to make it easier to learn?
- Have a required reading?
 - A book chapter?
 - Published study that applies the theory?
- Explanation for what theory is (in general) and what can be accomplished by using it
- Pharmacy-based application to illustrate
- Help students “build theory” in response to observed behavior(s), research findings



Engaging pharmacy students in both learning and applying theory... First, a few “within course” examples



Design a Patient Care Program

- Goal of theory use: patient behavior change
- Apply theoretical principles to:
 - Design intervention activities, educational approach(es)
 - Design or access existing written materials
 - Determine appropriate environment for learning, needed supplies
 - Determine assessment measures




Communication Simulation Case Study

- Goal of theory use: Improve communication with patient (or other provider)
- Apply theoretical principles to:
 - Identify possible reasons for behavior(s)
 - Consider theories to inform one's own behavioral response
 - Enact communication response, change of environment, support mechanisms

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Use Theory to Help Solve a Problem


- Goal of theory use: Self-discovery of how applying a different theoretical approach can alter the strategy and solutions to a problem.
- Instruction: To approach the same problem using different theories.

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Make It Personal




- Goal: Apply theory to self, to gain more understanding of patient motivations, behaviors
- Apply theoretical principles to:
 - Change own behavior
 - Reinforce own behavioral change
 - Reflect on own successes or failures
 - Learn how to apply theory to real situations

Kavookjian, J. Plake, KS. Application of behavior theories: Assessment of student motivations for personal health behavior change. AACP Annual Meeting, 2008.

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Guide Reflective Learning Activities




- Goal of theory use: Provide a framework for reflection on a targeted (student) behavior
- Apply theoretical principles to:
 - Critically evaluate one’s own behavior in light of possible precursors to the behavior
 - Confirm or disconfirm theory applicability

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Use Theory to “Frame It”

Help students to identify and analyze a behavior, its likely precursors or predicting variables

- Case Studies (real or fabricated)
- Assignments
- Disease modules
- Lab exercises
- Simulated patient encounters
- Entire course? (content and/or process)
- Entire curriculum? (content and/or process)



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Models for Integrating Health Behavior Theories across a Pharmacy Curriculum

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How Theory Is Used in Regards to Curriculum

- To inform how broad changes are made in curricular design and/or implementation
 - Systems Theory to design an Occupational Therapy degree program (Schemm, Corcoran, Kolodner & Schaaf, 1993)
 - Instructional Systems Design Theory, Learning Theory and Diffusion of Innovation Theory to frame and implement a managed care curriculum for physicians (Mast, 1997)
 - Theory of Planned Behavior to integrate professionalism training in medical education (Archer, Elder, Hustedde, Milam & Joyce, 2008)
 - Diffusion of innovation theory principles to foster adoption by faculty of newly embedded simulation activities (Starkweather & Dardong-Edgren, 2008)


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How Theory Is Used in Regards to Curriculum

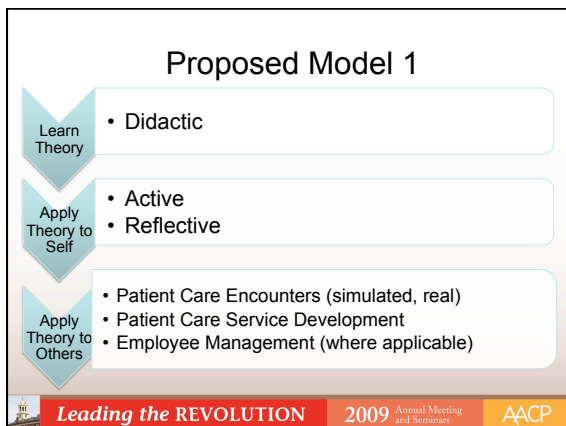
- Problem-based learning model 10-year application offers insights to design, implementation and student and faculty acceptance of such a radical change (Ross et al., 2007)
- “Theory” is used to describe the “theory of practice” or the didactic portion of curricula that is not “practical” or experiential in nature (Katajavuori, Lindblom-Ylanne & Hirvonen, 2006; Morgan, 2006)

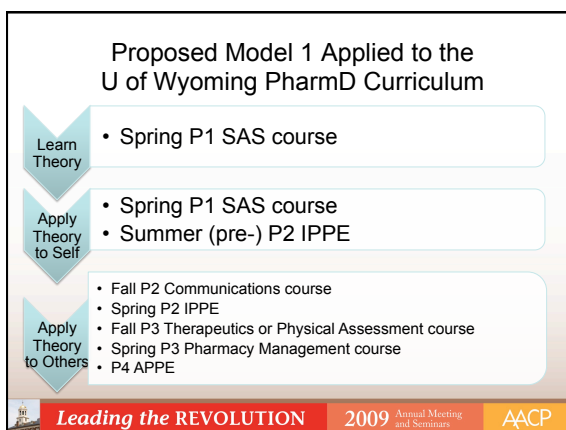

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How Theory Is Used in Regards to Curriculum

- Twelve “cross-cutting themes” integrated into a School of Medicine curriculum (Kitzes et al., 2007)
- Pharmaceutical Care (Hepler & Strand; Cipolle, Strand & Morley)
- No published examples found of health professions integrating the teaching of health behavior theory across a curriculum


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What do you think? (Interactive)

1. How could the proposed model apply to your curriculum?
 - What courses?
 - What theory(ies)?
 - What activities?
2. What alternative models could be used? What limitations does the proposed model have?
3. When integrating theory into a curriculum, what benefits could be experienced? What challenges would need to be overcome?

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Proposed Model 2

- Learn and Apply 1-2 Theories
 - Didactic (theory most relevant to course)
 - Active
- Learn and Apply 1-2 Theories
 - Didactic (theory most relevant to course; reinforce previously taught theories by comparing/contrasting)
 - Active
 - Reflective
- Learn and Apply 1-2 Theories
 - Didactic (theory most relevant to course; reinforce previously taught theories by comparing/contrasting)
 - Patient Care Encounters (simulated, real)
 - Patient Care Service Development
 - Employee Management (where applicable)

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Wrapping Up

Assessment
Challenges
Opportunities

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Assessment

- Student understanding of how theories relate to other course material and practice experiences:
 - Short answer questions/essays requiring theory application
 - Higher order multiple choice questions
 - Application of theoretical principles during patient-pharmacist simulation exercises, or actual patient encounters
- Assess student report of professor reference to, and use of, health behavior theories in courses
 - Basic recall, belief of applicability
- Assessment of the adopted model at each stage

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Assessment Examples

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Multiple Choice Example

- A patient who has chronic hypothyroidism (low thyroid hormone) only takes her medication to replace her thyroid hormone when she notices her energy level is low. Which of the following theories or models **best** explains this patient's medication behavior?
 - a. Self-Regulation Theory
 - b. Self-Efficacy Theory
 - c. Health Belief Model
 - d. Theory of Reasoned Action
 - e. Locus of Control Theory

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Multiple Choice Example

- In the Roter & Hall (1997) model of provider's care, which of the following is an accurate comparison between the different types of provider care:
 - a. Consumerism and Default involves low patient control
 - b. Default involves low patient control, Paternalism involves high patient control
 - c. Mutuality and Default involve high patient control
 - d. Mutuality and Consumerism involve high patient control
 - e. Paternalism and Consumerism involve high provider control

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Short Answer Example

- Describe two ways in which the Health Collaboration Model and Interpersonal Communication Models are similar and two ways they are different. (6 points)
- See handout

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Short Answer Example

- RP is newly diagnosed with Type 2 Diabetes. You meet with her to help with her medication and blood glucose management. She says, "I don't think I can do all of this."
- Use self efficacy theory to describe how you will work to help RP. Show your knowledge of the theory and its principles.

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Challenges

- Strong leadership needed (Curriculum Chair? SAS Faculty?)
- Identification of good examples for integration with course material
- Adequately resourced curriculum team, able to mobilize the faculty
 - Faculty agreement on theories worthy of integration
 - Faculty learning of theories outside of their core teaching focus
 - Faculty acceptance of additional material & assessment and time involved
- Student attitudes toward integration of material and relevance to practice

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Opportunities

- For students and faculty:
 - Foster interdisciplinary learning
 - Facilitate more critical thinking and comparative learning
- Stimulate new thinking and development of models, paradigms, and applications of health behavior and its relationship to pharmacy
- Guide the development of translational research based on existing, and new, theories

Questions?
