

# Using Social Cognitive Theory in Teaching Pharmacy Students

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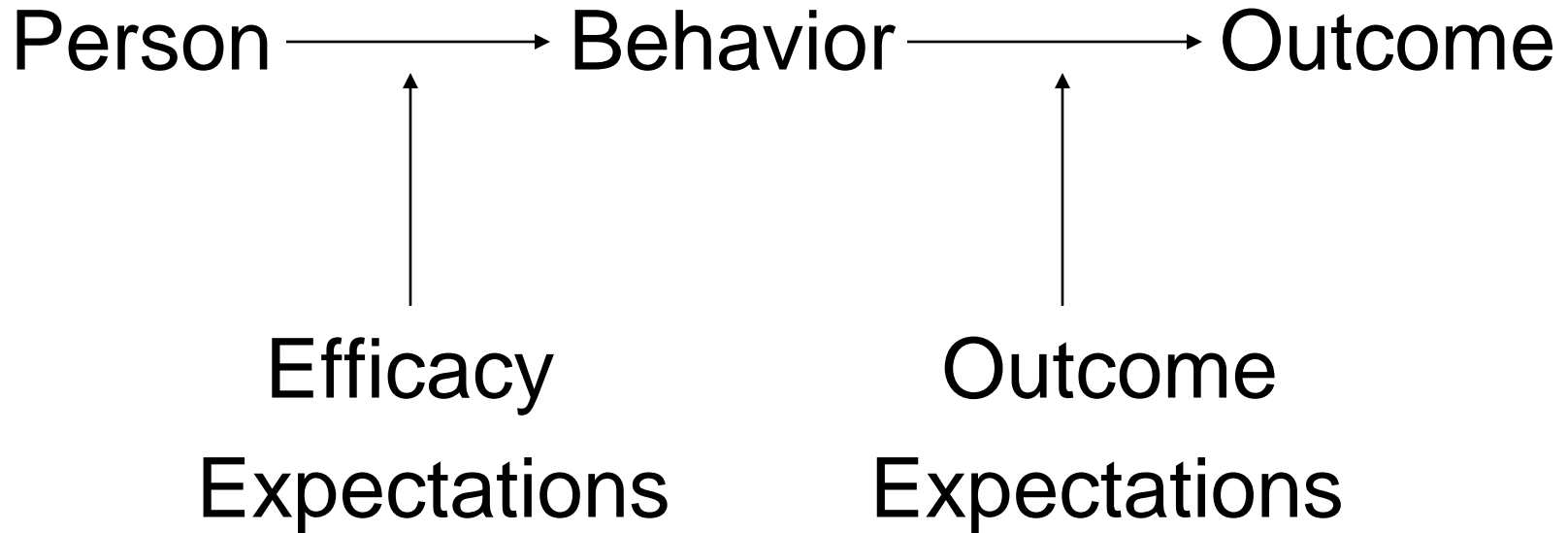
# Objectives

- Describe Social Cognitive Theory
- Identify strategies for increasing self-efficacy beliefs
- Describe use of effective modeling to teach desired behavior
- Describe a Social Cognitive Model of Self-Regulated Learning

# Key Constructs

- Outcome Expectations: The person's belief that a specific behavior will lead to a particular outcome.
- Self-efficacy Expectations: The person's self-confidence in performing a particular behavior at a certain level of competence.

# Theoretical Framework





**Now thats what I call self confidence!**

# Self-efficacy influences all aspects of behavior

- Acquiring new
- Changing old
- Choosing actions
- Effort
- Perseverance
- Resilience
- Emotional reactions
- Thought patterns
- Self-regulation of motivation
- Level of accomplishment
  - High levels of skill can be overruled by self-doubts
  - Efficacy beliefs affect performance directly and indirectly by influencing intentions and goals

# If self-efficacy is low, person

- Avoids tasks
- Does not expend great effort
- Gives up easily
- Judges tasks to be harder
- Is prone to anxiety
- Attributes failure or relapse to low ability

# For simple behaviors, important belief is self-regulatory efficacy

- Appropriate measure is **not** whether people believe they are capable of enacting behavior
  - Swallowing a tablet, flossing teeth, walking a mile
- Key is the confidence that one can motivate oneself to engage in the behavior on a daily basis in the face of specified conditions that interfere with efforts.
- Identifying salient obstacles is crucial—“How confident am I that I can maintain the behavior when I am busy, tired, depressed, on vacation, etc.”

# Efficacy beliefs are translated into performance attainment if:

- There is a clearly defined goal in mind
- Task demands are accurately understood
- Feedback about performance is specific, timely and accurate
- Incentives for the performance are in place
  - People may possess skills and sense of efficacy but choose not to perform the activities because they have no incentive to do so
  - Efficacy beliefs will exceed actual performance when there are disincentives or external constraints

# Strategies for increasing self-efficacy

- Set small, incremental goals
  - Easier to manage
  - Sequencing important
- Emphasize relative progress to goal
- Monitor, provide feedback and reinforcement
- Attribute accomplishments to a person's **abilities** to master tasks rather than to “hard work”

# Increasing self-efficacy (cont.)

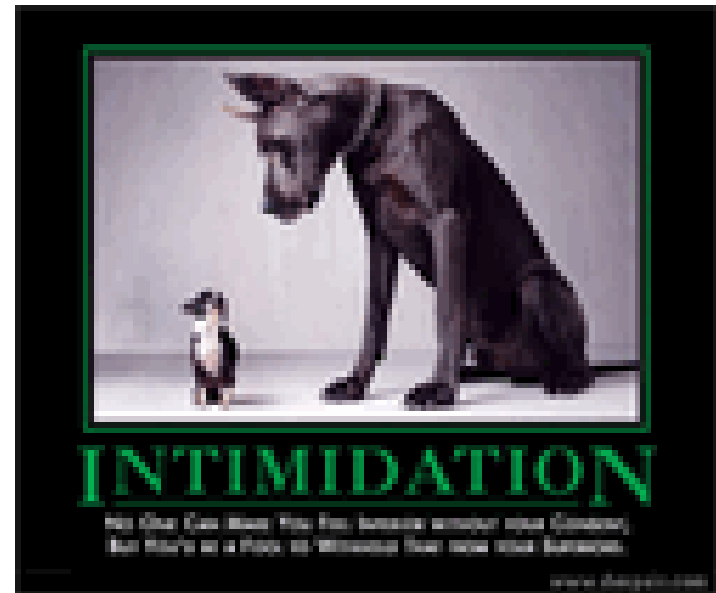
- Chart progress over time
- Change perception of lapses or performance shortfalls -- see it as opportunity to learn and plan ways to address situation in the future.
- Analyze high-risk situations where self-efficacy is low.
- Rehearse desired behavior in those situations.

# Relationship of self efficacy and outcome expectations

- Outcome expectations are crucial if behavior is easy but outcome is uncertain or distant (taking a statin).
- Self-efficacy beliefs are primary when behavior is complex but behavior-outcome link is more certain (smoking cessation).
- Both outcome and efficacy beliefs are important when behavior is complex and outcome uncertain (studying med chem; writing a grant proposal).

# Efficacy Expectations Are Learned From:

- Performance accomplishments
  - Mastery experiences
  - Most potent influence

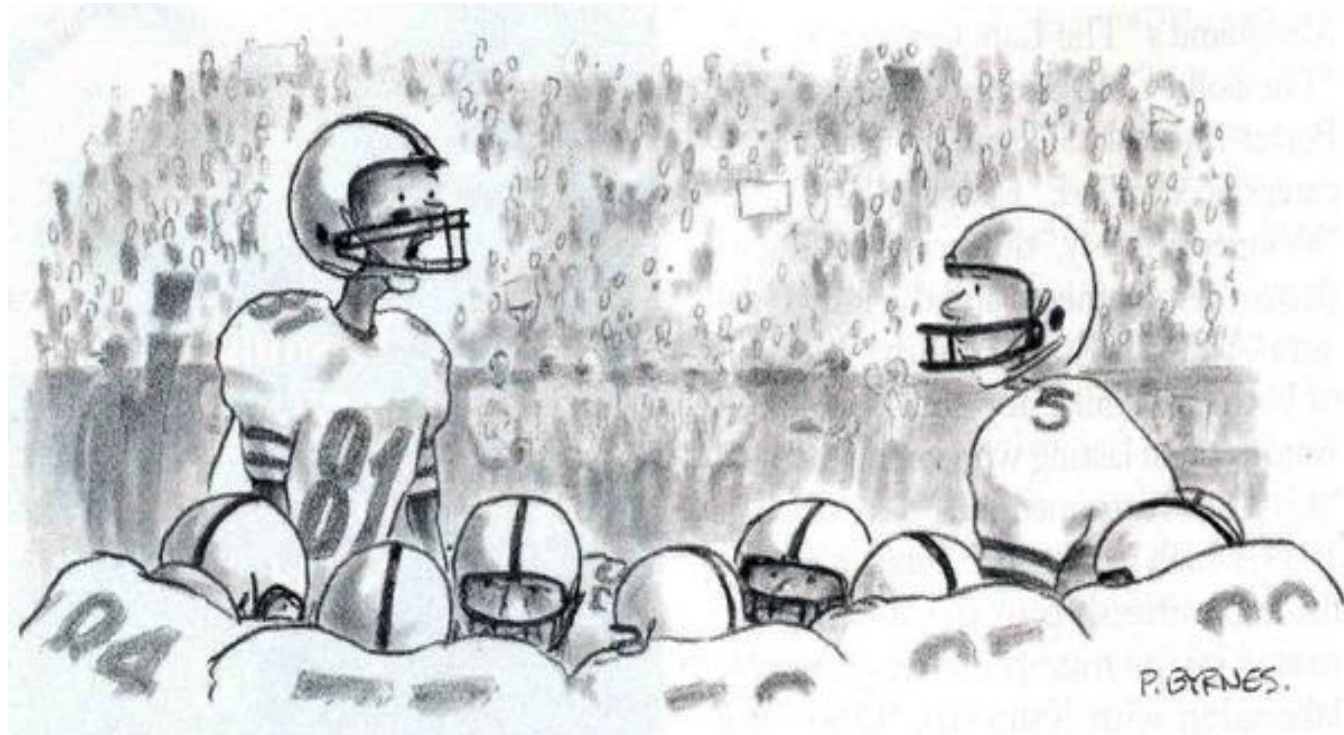


# Efficacy Expectations Are Learned From:

- Verbal persuasion
  - May convince someone (temporarily?) to behave in a certain way
  - Bandura -- It is easier to undermine self-efficacy beliefs than to instill them through verbal persuasion.\*
  - Sticks and stones will break my bones AND words will hurt me.

\*Bandura, A. *Self-efficacy: The exercise of control*. New York: Freeman, 1997.

# Verbal Persuasion at Work



**“But what if that guy in the bleachers is right?  
What if I DO suck?”**

# Efficacy Expectations Are Learned From:

- Vicarious Experience (Observational Learning)
  - People learn by observing others
  - Observation is a **powerful** source of learning (either intentionally or accidentally)
  - Observing others reduces fear of engaging in new behaviors

“You can observe a lot just by watching”—Yogi Berra



# Observational Learning

- Learning can occur **without** a change in behavior
- Behavior is learned through observation & then expressed through enactment the behaviors observed.
- Enactment is ***not*** pure mimicry or literal imitation. People improvise.

# Observational Learning: Classic Bobo Doll Experiment

- Three groups of Kindergartners
- Viewed 3 different versions of a violent film
- Then placed in room with Bobo dolls



# Findings

- Children who watched the film in which the model was reinforced or went unpunished imitated the behavior more than children who saw the model punished.
  - *However, learning occurred even when the behavior was not reinforced.*
- Reminder: Modeling and imitation may not always be desirable!!!



# Cognitive Factors Involved in Observational Learning

- Attention to actions of models
  - Showing a number of models helps student adapt models' behaviors to personal style
- Ability to discriminate relevant from irrelevant behaviors
- Mental rehearsal of actions
- Efficacy and outcome expectations
- Awareness of contingencies in operation

# Characteristics of Effective and Positive Model

- Model is perceived as competent
- Model is like the learner or person observing (e.g. age, gender, status) **OR** model is of high status
- Model is seen as overcoming obstacles presenting moderate levels of challenge through effort and persistence
- Behavior of model is positively reinforced

# Modeling Cognitive Skills

- Models verbalize thought processes aloud during problem-solving activities
- Observer can learn how to use cognitive plans and strategies to:
  - Diagnose problems
  - Generate alternate solutions
  - Decide action plan
  - Monitor effects of actions
  - Correct errors
  - Use coping self-instructions to overrule self-doubts
  - Use self-praise to provide motivational support
  - Manage stress

# Self-regulation efficacy

- Self-instruction
- Self-monitoring
- Self-reflection
- Self-reinforcement
- Management of emotional arousal
- Self-imposed stimulus control

# Learner's Self-Instruction

- Observe model
- Cognitively represent salient behaviors
- External guidance
  - External instruction while performing task
- Self-guidance
  - Repeat instruction while performing task
- Faded self-guidance
  - Whisper instruction while performing task
- Covert self-instruction
  - Silently think instruction while performing task

# Self-monitoring

- Self-record target behavior
- Observe and measure own responses
- Performance standards or criteria for evaluating must be clearly understood
- Entering students (or new patients?) are not proficient at accurate self-assessment of skills—require feedback and coaching

# Self-reflection

- Is self-analysis of experience
- Is a key cognitive process
- Allows us to monitor our own thoughts and actions
- Allows us to change our goals and behaviors

# Self-reflection

- Current evaluation of progress
  - What is working?
  - What needs improvement?
- Evaluation of our own behavior as if we are being judged by others—standards eventually become internalized and habits of thinking established

# Self-reinforcement

- Create self-incentives to regulate motivation
- Granting oneself external rewards when desired behavior occurs
- Self-praise

# Self-imposed stimulus control

- Increase desired behavior by seeking out positive environment
- Decrease undesired behavior by avoiding highly challenging or risky situations
- Enlist needed resources of assistance or support

# Implications for Teaching Students

- Have effective expert and peer models
- Show a number of models so student adapts models' behaviors to personal style
- Model skills and cognitive problem-solving process
- Have clearly defined criteria appropriate for level of student
- Raise both competence and confidence of students
- Measure both competence and confidence

# Teaching Students (cont.)

- Include self-assessment and reflection on learning
- Implement interventions not only to improve skills but also to alter inaccurate self-judgments
- Structure numerous, carefully sequenced opportunities for authentic mastery experiences
  - Praise or reinforcement disconnected from accomplishment of challenging tasks loses credibility

# Implications for Teaching Patients

- Patient knowledge of health risks and benefits create precondition for change
- Assess patient self-efficacy and outcome beliefs
- Have effective patient peer models who have overcome challenges

# Teaching Patients (cont.)

- Assist patient in
  - Setting goals for health behavior change that challenge but do not overwhelm confidence
  - Self-monitoring of behavior and progress
  - Building personal incentives and reinforcements for meeting goals
  - Anticipating obstacles and developing strategies to overcome
  - Developing resilience to setbacks

## Social Cognitive Theory References and Resources

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Thank you  
Danke  
Khawp khun  
Jum  
Isipat  
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Arigato  
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Gracias  
Obrigado