



## HEALTH BEHAVIOR CHANGE: KEY ELEMENTS IN DESIGNING SUCCESSFUL PROGRAMS

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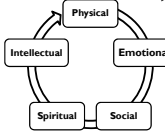
## LEARNING OBJECTIVES:

- ▶ Describe how behavior change is reflected in definitions of health education and health promotion.
- ▶ Explain educational factors – predisposing, enabling, and reinforcing-- that influence behavior change as well as constructs within behavior change theories such as self-efficacy and perceived barriers to change.
- ▶ Distinguish extrinsic and intrinsic motivation with a special focus on intrinsic motivation and motivational interviewing.
- ▶ Provide a list of resources that reinforce and expand on the information provided.

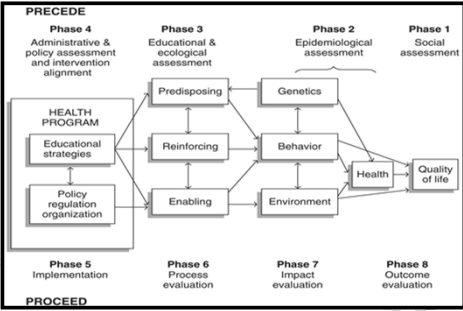


## DEFINITIONS: HEALTH EDUCATION AND HEALTH PROMOTION (I)

- ▶ **Health education:**
  - ▶ "Any planned combination of learning experiences designed to predispose, enable, and reinforce voluntary behavior conducive to health in individuals, groups, and communities" (Green & Kreuter, 2005, p. G-4).
- ▶ **Health promotion:**
  - ▶ "...the science and art of helping people change their lifestyle to move toward a state of optimal health. Optimal health is defined as a balance of physical, emotional, social, spiritual, and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior, and create environments that support good health practices. Of the three, supportive environments will probably have the greatest impact on producing lasting change." (American Journal of Health Promotion, 1989).



## PRECEDE-PROCEED MODEL (I)



## PHASE 3 – EDUCATIONAL & ECOLOGICAL ASSESSMENT: IDENTIFIES & CLASSIFIES THREE FACTORS THAT HAVE POTENTIAL TO INFLUENCE BEHAVIOR

**Predisposing Factors**  
Include knowledge, attitudes, values, beliefs, and perceptions that facilitate/hinder a person's motivation to change

**Enabling Factors**  
Include barriers & facilitators e.g. access to health services, availability of resources, skills, rules, & laws

**Reinforcing Factors**  
Include feedback & rewards, e.g., benefits such as recognition, appreciation, incentives, disincentives

**Behavior Change**

## THEORIES & THEORETICAL MODELS (I)

- ▶ **Distinction between words *theory* and *theoretical model***
  - ▶ The word "theory-based" is used a lot, e.g., theory-based planning, theory-based practices, or theory-based research
  - ▶ The word theory is used in a general way to mean either theory or theoretical model
  - ▶ Some of the best known, commonly used theories use the word "model" in their title:
    - ▶ Health Belief Model
    - ▶ Transtheoretical Model (TTM)
- ▶ **Behavior Change Theories/Models**
  - ▶ Help explain how change takes place
  - ▶ Consist of constructs
    - ▶ **Construct** – A concept developed, created, or adopted for use with a specific theory.

### BEHAVIOR CHANGE THEORIES

- Theories serve as the backbone of processes used to plan, implement, and evaluate health promotion interventions.
- There is no perfect theory and no one theory dominates research or practice. Approximately 10 theories and theoretical models are used regularly to plan programs (1).
  - Some of these include:
    - Stimulus Response Theory (SRT)
    - Social Cognitive Theory (SCT)
    - Transtheoretical Model (TTM)
    - Health Belief Model (HBM)
    - Theory of Planned Behavior (TPB)
    - Cognitive-Behavioral Model of the Relapse Process (CBMRP)

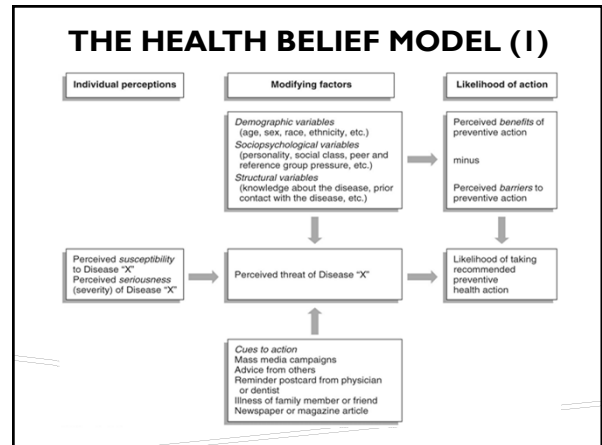
### BEHAVIOR CHANGE THEORIES – CONT.

► Theories can help by

- Identifying why people are not behaving in healthy ways.
- Identifying information needed before developing an intervention.
- Providing a framework for selecting constructs to develop the intervention.
- Providing direction and justification for program activities.
- Providing insights into how best to deliver the intervention.
- Identifying what needs to be measured to evaluate the impact of the intervention. (1)

### PRIMARY CONSTRUCTS OF BEHAVIORAL THEORIES (2)

Primary Constructs of Specified Behavioral Theories			
Health Belief Model	Theory of Planned Behavior	Transtheoretical Model	Social Cognitive Theory
Behavior change is driven by: <ul style="list-style-type: none"> <li>Perceived Susceptibility</li> <li>Perceived Severity</li> <li>Perceived Benefits</li> <li>Perceived Barriers</li> <li>Cues to Action</li> <li>Self-Efficacy</li> </ul>	Intentions drive Behavior Intentions are influenced by: <ul style="list-style-type: none"> <li>Attitude Toward Behavior</li> <li>Subjective Norm</li> <li>Perceived Behavioral Control</li> </ul>	Behavior change is a process which goes through stages: <ul style="list-style-type: none"> <li>Pre-Contemplation</li> <li>Contemplation</li> <li>Preparation</li> <li>Action</li> <li>Maintenance</li> </ul> Movement between stages is influenced by: <ul style="list-style-type: none"> <li>Decisional Balance</li> <li>Self-Efficacy</li> <li>Processes of Change</li> </ul>	Reciprocal Determinism—the following factors interact to influence each other: <ul style="list-style-type: none"> <li>Environmental</li> <li>Personal</li> <li>Behavioral</li> </ul> A number of constructs influence the behavioral result: <ul style="list-style-type: none"> <li>Observational Learning</li> <li>Behavioral Capability</li> <li>Outcome Expectations</li> <li>Self-Efficacy</li> </ul>



### BENEFITS OF EXERCISE (3)

TOP 25 REASONS TO EXERCISE	
1. Strengthens heart muscle. 2. Decreases the incidence of heart attack. 3. Reduces risks for heart disease, e.g., reduces bad LDL cholesterol and increases good HDL cholesterol. 4. Improves circulation and oxygen/nutrient transport throughout the body. 5. Helps lose weight and keep it off. 6. Improves breathing efficiency. 7. Strengthens & tones muscles and improves appearance. 8. Helps prevent back problems and back pain. 9. Improves posture. 10. Strengthens bones and helps reduce risk of osteoporosis and falls. 11. Strengthens the tissues around the joints and reduces joint discomfort and arthritis if appropriate exercise is selected and properly performed. 12. Decreases risk for several types of cancer.	13. Improves immune function which decreases risk for infectious diseases. 14. Maintains physical and mental functions throughout the second half of life. 15. Increases self-confidence and self-esteem. 16. Boosts energy and increases productivity. 17. Improves sleep. 18. Helps create a positive attitude about life and enhances quality of life. 19. Reduces anxiety and depression. 20. Increases resistance to fatigue. 21. Lengthens lifespan and slows aging. 22. Reduces blood pressure. 23. Decreases the incidence of Type 2 diabetes. 24. Increases readiness to stress. 25. Slows the loss of cognitive function with aging.

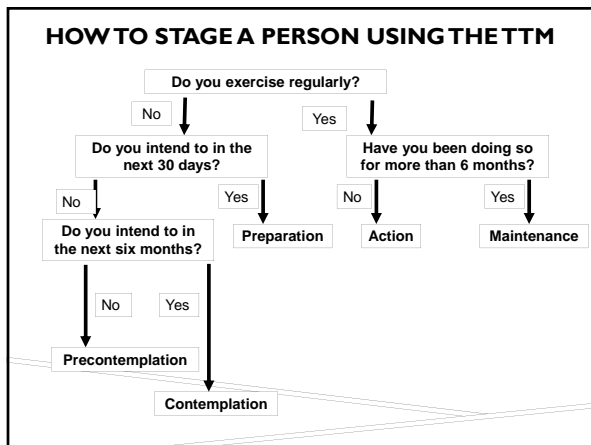
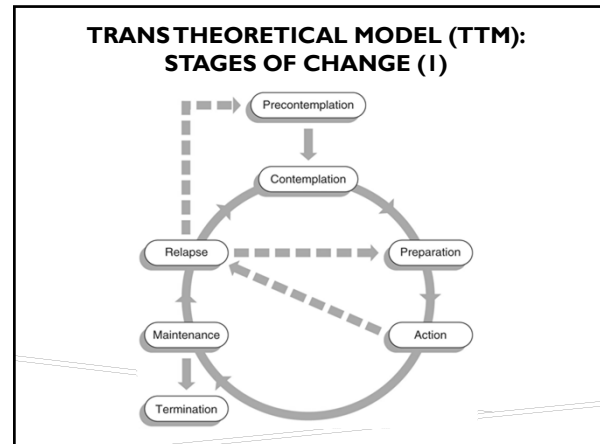
Your Prescription for Health  
**Exercise is Medicine**<sup>®</sup>  
 www.ExerciseIsMedicine.org

Health and Fitness Professionals' Action Guide

[http://www.exercisemedicine.org/documents/HealthFitnessProActionGuide\\_HR.pdf](http://www.exercisemedicine.org/documents/HealthFitnessProActionGuide_HR.pdf)

### BARRIERS TO EXERCISE (4)

Common Exercise Barriers	Percent Endorsing Barrier	Applicable Theories
I don't have time	69%	SCT, TPB
I don't have enough energy	59%	SCT, HBM, TPB
I'm just not motivated	52%	SCT, HBM, TPB, TTM
It costs too much	37%	HBM, TTM
I'm sick or hurt	36%	TTM
There's nowhere for me to exercise	30%	SCT, HBM
I feel awkward when I exercise	29%	SCT, TPB
I don't know how to do it	29%	SCT, HBM, TTM, TPB
I might get hurt	26%	SCT, HBM, TPB
It's not safe	24%	SCT
No one will watch my child if I exercise	23%	SCT
There is no one to exercise with me	21%	SCT, TPB, TTM



### TTM – APPLICATION OF PHYSICAL ACTIVITY: SUGGESTED STRATEGIES AT EACH STAGE (4)

**BOX 11.4 Example Strategies to Facilitate Stage Transitions**

**PRECONTEMPLATION → CONTEMPLATION**

- Emphasize the benefits of regular exercise by not focusing on what might happen if they stay inactive but what will happen if they become active
- Discuss how some of the barriers they perceive may be misconceived such as it can be done in shorter and accumulated bouts if they don't have the time
- Have them visualize what they would feel like if they would exercise with an emphasis on short-term, easily achievable benefits of activity such as sleeping better, reducing stress, and having more energy
- Discuss how their inactivity impacts individuals other than themselves such as their spouse and children

**CONTEMPLATION → PREPARATION**

- Explore potential solutions to their exercise barriers
- Assess level of self-efficacy and begin techniques to build efficacy
- Discuss potential activities that they might be able to do
- Emphasize the importance of even small steps in progressing toward being regularly active

### TTM – APPLICATION OF PHYSICAL ACTIVITY: SUGGESTED STRATEGIES AT EACH STAGE – CONT.

**PREPARATION → ACTION**

- Help develop an appropriate plan of activity to meet their exercise goals and use a goal setting worksheet to make it a formal commitment
- Use reinforcement to reward steps toward being active
- Teach self-monitoring techniques such as tracking time and distance
- Continue discussion of how to overcome any obstacles they feel are in their way of being active
- Encourage them to help create an environment that helps remind them to be active


**ACTION → MAINTENANCE**

- Provide positive and contingent feedback on goal progress
- Explore different types of activities they can do to avoid burnout
- Encourage them to work with and even help others become more active
- Discuss relapse prevention strategies
- Discuss potential rewards that can be used to maintain motivation

### SOCIAL COGNITIVE THEORY: SELF-EFFICACY CONSTRUCT (DEVELOPED BY BANDURA)

Bandura suggests that self-efficacy is the most important factor in predicting behavior change. **Self-efficacy is a person's confidence in the ability to succeed at a specific task in specific difficult situations.** The strength of that confidence influences whether a task attempted, how much effort is expended to compete the task, and how persistent a person will be when faced with obstacles. (1)

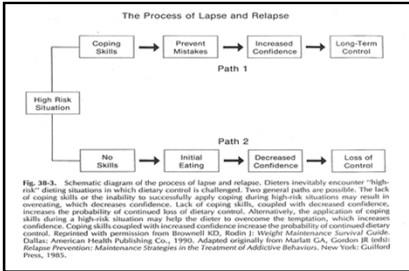
**SELF-EFFICACY IS A PERSON'S CONFIDENCE IN THE ABILITY TO SUCCEED AT A SPECIFIC TASK IN SPECIFIC DIFFICULT SITUATIONS.**



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"I'm going to order a broiled skinless chicken breast, but I want you to bring me lasagna and garlic bread by mistake."

**COGNITIVE-BEHAVIORAL MODEL OF THE RELAPSE PROCESS**



**Relapse** - breakdown or failure in a person's attempt to change or modify a particular (health) behavior  
**Lapse** - a single slip or mistake

**COGNITIVE-BEHAVIORAL MODEL OF THE RELAPSE PROCESS – CONT.**


- ▶ **Relapse Prevention** - a self-control program designed to help individuals to anticipate and cope with the problem of relapse when changing (health) behavior
- ▶ Relapse is triggered by high-risk situations.
  - ▶ People who have the coping skills to deal with a high-risk situation have a much greater chance of preventing relapse than those who do not. (1)

**STIMULUS RESPONSE THEORY (SRT)**

Stimulus → Response → Consequence

- ▶ The association between a behavior and an immediately following reward is sufficient to increase the probability that the behavior will be repeated.
- ▶ If the consequence is **reinforcement** then there is an increase in behavior. (**incentive -- positive reinforcement such as a reward, prize, recognition, decreases in health care premium**)
- ▶ If the consequence is **punishment** then there is a decrease in behavior. (**disincentives – such as surcharges for negative behaviors such as smoking or increases in health care premium**) (1)

**Health Enhancement Systems: “Free” White Paper**  
<http://www.hesonline.com/employee-wellness-products/free-stuff/whitepapers> (5)



**Intrinsic motivation** is defined as acting out of genuine interest instead of rewards, goals, or outcomes. Example: I'll sign up for the fitness challenge because it sounds like fun and I want to see if I can do it.

**Extrinsic motivation** is defined as doing something for a tangible reward, such as money, prizes, additional time off, or avoiding penalties. Example: I'll sign up for the fitness challenge because I want to get a discount on my insurance premiums.

**The Carrot and Stick Approach – Fashionable, But Futile**  
 Use of financial rewards to participate in worksite wellness programs:

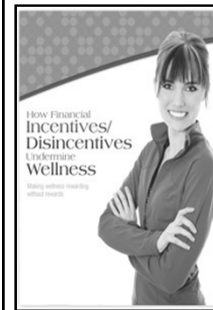
- 50% increase in financial rewards between 2009-2011 with these rewards projected to continue
- **National Business Group on Health** survey -- average wellness incentive values (per employee) were:
  - 2009 – \$260
  - 2010 – \$430
  - 2011 -- \$460
- Use of financial penalties more than doubled between 2009-2011
- Are large financial rewards (medical premium discounts, cash) an effective way to promote long-term well-being?
- More recent research is showing that it might work to get people initially to participate but unlikely to result in “lasting” behavior change
- More effective approach: Help employees be self-directed in adopting a healthy lifestyle – become intrinsically motivated.

## MOTIVATIONAL INTERVIEWING (6)

TABLE 1. EXAMPLE SCRIPTS WHICH SUPPORT AND DO NOT SUPPORT A CLIENT'S AUTONOMY

SUPPORTIVE	NOT SUPPORTIVE
<p><b>PROFESSIONAL:</b> TELL ME WHAT YOUR IDEAL PHYSICAL ACTIVITY PROGRAM WOULD LOOK LIKE.</p> <p><b>CLIENT:</b> PLEASE</p> <p><b>PROFESSIONAL:</b> RESEARCH SUGGESTS ADULTS CAN ACHIEVE HEALTH BENEFITS FROM PHYSICAL ACTIVITY WHEN THEY ENGAGE IN 30 MINUTES OF PHYSICAL ACTIVITY FIVE DAYS A WEEK PLUS AT LEAST 2-3 DAYS OF RESISTANCE TRAINING EXERCISES. WHAT DO YOU THINK ABOUT THAT?</p> <p><small>(ASK-PROVIDER-ASK METHOD FROM MOTIVATIONAL INTERVIEWING<sup>2</sup>)</small></p> <p><b>CLIENT:</b> I WANT TO BE ACTIVE, BUT I NEVER HAVE TIME.</p> <p><b>PROVIDER:</b> HOW DO YOU THINK YOU COULD OVERCOME THAT PERCEIVED BARRIER?</p>	<p><b>PROFESSIONAL:</b> YOU SHOULD WALK AT A BRISK PACE MOST DAYS OF THE WEEK.</p> <p><b>PROFESSIONAL:</b> YOU SHOULD BE DOING 30 MINUTES OF PHYSICAL ACTIVITY FIVE DAYS A WEEK PLUS AT LEAST 2-3 DAYS OF RESISTANCE TRAINING EXERCISES.</p> <p><b>CLIENT:</b> I WANT TO BE ACTIVE, BUT I NEVER HAVE TIME.</p> <p><b>PROFESSIONAL:</b> YOU SHOULD MAKE A SCHEDULE AND INCLUDE A SPACE FOR PHYSICAL ACTIVITY FIRST THING IN THE MORNING. THAT WORKS FOR A LOT OF PEOPLE.</p>

Used in wellness coaching



This White Paper provides many program strategies to help your employees achieve intrinsic motivation versus incentive/disincentive programs that focus on extrinsic motivation.

Lasting behavior change doesn't happen without intrinsic motivation. Creating conditions within your wellness program design — and in the workplace — that support intrinsic motivation is a smarter investment of resources than financial incentives for participation or outcomes.

**"Control leads to compliance; autonomy leads to engagement."**  
Daniel Pink (*Drive: The Surprising Truth About What Motivates Us*)

## REFERENCES

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## RESOURCES

