

Health Promotion Theories and Models for Program Planning and Implementation

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Behavior change theories provide structures that educators may use to systematically design educational programs, and to explain how and why a program is expected to be effective. No one theory can address all variables that contribute to a person's behavior, and not all theories are applicable to all situations. But elements of different theories may be combined to create a program tailored for a specific issue and target population.

Most theories address eight components of behavior change:

- “1. The person has formed a strong positive intention (or made a commitment) to perform the behavior.
2. [There are no] environmental constraints [preventing] the behavior [from occurring].
3. The person has the skills necessary to perform the behavior.
4. The person believes that the advantages of performing the behavior outweigh the disadvantages (attitude).
5. The person perceives more social (normative) pressure to perform the behavior than not to do so.
6. The person perceives that performing the behavior is more consistent than inconsistent with his or her own self-image (personal norms, personal standards).
7. The person's emotional reaction to performing the behavior is more positive than negative.
8. The person perceives that he or she has the capability to perform the behavior under a number of different circumstances (perceived self-efficacy, perceived behavioral control).” (Bartholomew et al., 2006)

The theorists who identified the eight elements consider the first three as necessary and sufficient for behavior change to occur, while the remaining five influence the strength and direction or intention of the change.

Many theories of behavior change contain the same basic elements listed above, although they may identify them with different terms. The following table lists several theories and models that may be used for health promotion. Some are well-known, and others are newer but promising.

Name of Theory	Ecological Level	Brief description	Key concepts and constructs	For more information
Health Belief Model	Individual	People will act to avoid a health threat if they believe it is serious and that the benefits of action outweigh perceived barriers.	Perceived threat Perceived susceptibility Perceived severity Perceived benefits Barriers to action Cues to action Self-efficacy	(National Cancer Institute, 2005b) Health Belief Model, University of Twente
Protection-Motivation Theory	Individual	Fear can motivate people to change behavior when they believe they are threatened and that their changes will make a difference in the outcome.	Perceived severity Perceived vulnerability Threat appraisal Coping appraisal Response efficacy Self-efficacy	Using Protection Motivation Theory to Increase the Persuasiveness of Public Service Communications, Saskatchewan Institute of Public Policy Protection Motivation Theory, University of Twente
Information-Motivation-Behavioral Skills Model	Individual	In order to adopt prevention behavior, people must have information that will translate easily into action, motivation to act, and skills to perform the behavior.	Information: directly related to preventive behavior, makes sense to the individual. Motivation: personal attitudes, social support, and perception of vulnerability. Behavioral skills: objective ability and perceived self-efficacy.	(Fisher & Fisher, 2002)

Name of Theory	Ecological Level	Brief description	Key concepts and constructs	For more information
Theory of Planned Behavior (Theory of Reasoned Action)	Individual	People act after they've developed an intention, which requires adopting a positive attitude toward the behavior, seeing it as a norm, and believing they have the ability to act.	Behavioral intention Attitude toward behavior: behavioral beliefs, evaluation of outcomes, outcome expectancy. Subjective norm: normative beliefs, motivation to comply. Perceived behavioral control (Theory of Planned Behavior only): beliefs about control, perceived power, actual behavioral control	(National Cancer Institute, 2005a) Theory of Planned Behavior, Icek Aizen, University of Massachusetts
Transtheoretical Model (Stages of Change and Processes of Change)	Individual	Behavior change is a non-linear process, with distinct stages; processes of change are strategies used to move people between stages. (e.g., consciousness raising, skill building)	Stage 1: Pre-contemplation Stage 2: Contemplation Stage 3: Planning Stage 4: Action Stage 5: Maintenance	(National Cancer Institute, 2005a) Detailed Overview of the Transtheoretical Model, Cancer Prevention Research Center, University of Rhode Island
Precaution-Adoption Process Model	Individual	In the process of adopting a protective behavior or abandoning a risky one, people move from unawareness of an issue through decision-making to action or inaction.	Stage 1: Unaware of issue Stage 2: Unengaged by issue Stage 3: Deciding about acting Stage 4: Decided not to act Stage 5: Decided to act Stage 6: Acting Stage 7: Maintenance	(National Cancer Institute, 2005a)

Name of Theory	Ecological Level	Brief description	Key concepts and constructs	For more information
Elaboration Likelihood Model	Individual	Attitude change that occurs through thoughtful consideration (central processing) is longer-lasting and more resistant to counter argument than attitude change occurring through a less thoughtful, more reactive process (peripheral processing). Strong attitude change is more likely to result in behavior change.	<ul style="list-style-type: none"> Persuasive communication Central processing Peripheral processing Motivation to process Ability to process Cognitive structure change Attitude change Attitude shift Peripheral cue 	<p>(Petty et al., 2008)</p> <p>Elaboration Likelihood Model, Yerin Lee</p>
Social Cognitive Theory (Social Learning Theory)	Individual/ Interpersonal	Three main factors contribute to behavior change: self-efficacy, goals, and outcome expectancies. People must believe that their action will make a difference and that the result will be beneficial. They must have the ability and skills necessary to act and self-efficacy (the belief that they will be successful in carrying out the action). Role models are effective in encouraging behavior change. Both social and physical environments may create barriers or facilitate change.	<ul style="list-style-type: none"> Reciprocal determinism (interaction between personal factors, behavior, and environment) Behavioral capability Expectations Self-efficacy Modeling Observational learning Reinforcement 	<p>(National Cancer Institute, 2005a)</p> <p>Social Cognitive Theory, University of Twente</p>

Name of Theory	Ecological Level	Brief description	Key concepts and constructs	For more information
Diffusion of Innovation		Innovation refers to a concept, behavior, or technology that is new to an individual. Diffusion takes place in stages (awareness, implementation, and maintenance) and may occur through formal and informal channels. Some people naturally adopt innovations much earlier than others. The attributes of an innovation affect willingness to adopt it, and these can be manipulated.	Stages of diffusion Channels of communication Roles: opinion leaders, change agents, change aides Adopter categories (e.g., innovators, early adopters) Attributes affecting diffusion (e.g., relative advantage, complexity)	(National Cancer Institute, 2005a) Diffusion of Innovation Theory, Center for Interactive Advertising, University of Texas
Natural-Helper Models	Interpersonal/Community	A natural helper is a member of a community or social network trained to provide information and social support to facilitate attitude and behavior changes. Peer education is a type of natural helper intervention.	Lay health advisor Peer educator Social network	(National Cancer Institute, 2005a) (Eng & Parker, 2002) http://www.peerprograms.org

Reference List

- Bartholomew, L. K., Parcel, G. S., Kok, G., & Gottlieb, N. H. (2006). *Planning Health Promotion Programs*. (2nd ed.) San Francisco, CA: Jossey-Bass.
- DeBarr, K.A. (2004) A review of current health education theories. *Californian Journal of Health Promotion*, 2, 74-87.
- Eng, E. & Parker, E. (2002). Natural helper models to enhance a community's health and competence. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.), *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health* (pp. 126-156). San Francisco, CA: Jossey-Bass.
- Fisher, J. D. & Fisher, W. A. (2002). The information-motivation-behavioral skills model. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.), *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health* (pp. 40-70). San Francisco, CA: Jossey-Bass.
- National Cancer Institute (2005a). *Theory at a Glance: A Guide for Health Promotion Practice*. (2nd ed.) NIH Publication No. 05-3896: US Department of Health and Human Services. Available online at <http://tinyurl.com/y4648y>
- Petty, R. E., Barden, J., & Wheeler, S. C. (2008). The elaboration likelihood model of persuasion. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.), *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health* (pp. 71-99). San Francisco, CA: Jossey-Bass.