

Models and Theories to Support Health Behavior Intervention and Program Planning

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Developing health promotion programs that support healthy lifestyle behaviors requires comprehensive planning. Program planners can use models and theories to guide this process as they work with individuals, groups, and communities. Individuals and communities have multiple risky lifestyle behaviors including physical inactivity, unhealthy diets, smoking, and stress. Also, there are often many factors that can affect an individual's or community's ability to effectively change behaviors, including low income, lack of access to safe places to exercise, inaccessibility of healthy food, and cultural and ethnic differences.

These factors can make determining how to best design a program seem like an overwhelming task. To be effective, programs must not only address the behavior, but also the factors that surround it. Models and theories can provide a framework for program planners to build upon as they develop health promotion programming.

This publication discusses three models or theories related to health behavior change that can help planners design effective health promotion programs: socioecological, transtheoretical, and health belief. Before describing these models, it is useful to first understand some basic terms, including theory, model, concept, and construct.

Basic Concepts

Merriam-Webster defines a theory as “an idea or set of ideas that is intended to explain facts or events.” Models refer to a more descriptive process. In other words, a model may describe how a process occurs but not necessarily why it occurs in that way.

Theories and models both include concepts and constructs. Concepts are the primary components of a model or theory. Constructs are components that have been created for use in a specific model or theory. These terms are important to understand when discussing models and theories (Glanz, Rimer, & Lewis, 2002).

Health behavior models and theories help to explain why individuals and communities behave the way they do. Planners can use these models and theories to increase the effectiveness of their program design, implementation, and evaluation. It's useful to remember that different models may be appropriate in different situations. There is no one-size-fits-all approach; each individual or community requires programming that is tailored specifically to their needs.

Tailoring that programming may require planners to consider multiple models or theories when they develop programs and interventions to support lifestyle behavior changes. A mix of approaches helps to provide the best support and guidance to individuals, groups and communities as they work to develop healthy lifestyle behaviors (Glanz, Rimer, & Lewis, 2002).

Socioecological Model

The first model, the socioecological model, addresses behavior change at multiple levels and considers the inter-relationship between behavior and the environment. The model accounts for multiple factors that can influence the behavior change process.

The model identifies five levels of influence on health behavior and discusses the reciprocal relationship between them (Stokols, 1996; McLeroy, Bibeau, Steckler, & Glanz, 1988):

- 1. Intrapersonal factors** — these include individual characteristics such as knowledge, beliefs, and self-concept. Most health promotion programming is aimed at this level.
- 2. Interpersonal processes and primary groups** — these include the individual's social environment such as family, friends, peers, and co-workers that surround the individual and influence behavior. In turn, an individual's behavior also influences family, friends, and peers (National Cancer Institute [NCI], 2005).
- 3. Institutional or organizational factors** — these refer to workplaces, churches, and other

organized social institutions. These institutions have formal or informal policies and structures.

- 4. Community factors** — these describe the relationships among organizations and institutions. This includes community norms.
- 5. Public policies** — these refer to policies or regulations concerning healthy practices.

In the socioecological model, an individual's behavior influences and is influenced by factors in the other levels (Glanz, Rimer, & Lewis, 2002). Using this model allows a program planner to consider factors from multiple levels that can impact health.

For example, to develop programming for adult obesity, a planner must first understand the policies, structures, behaviors, and norms that support obesity in the community. Communities that do not have access to healthy food or low-cost exercise options will have difficulty supporting an individual who attempts to become healthier. While individual lifestyle factors are important to consider, this model encourages the planner to identify interventions to influence factors where individuals live, work, and play. See Figure 1.

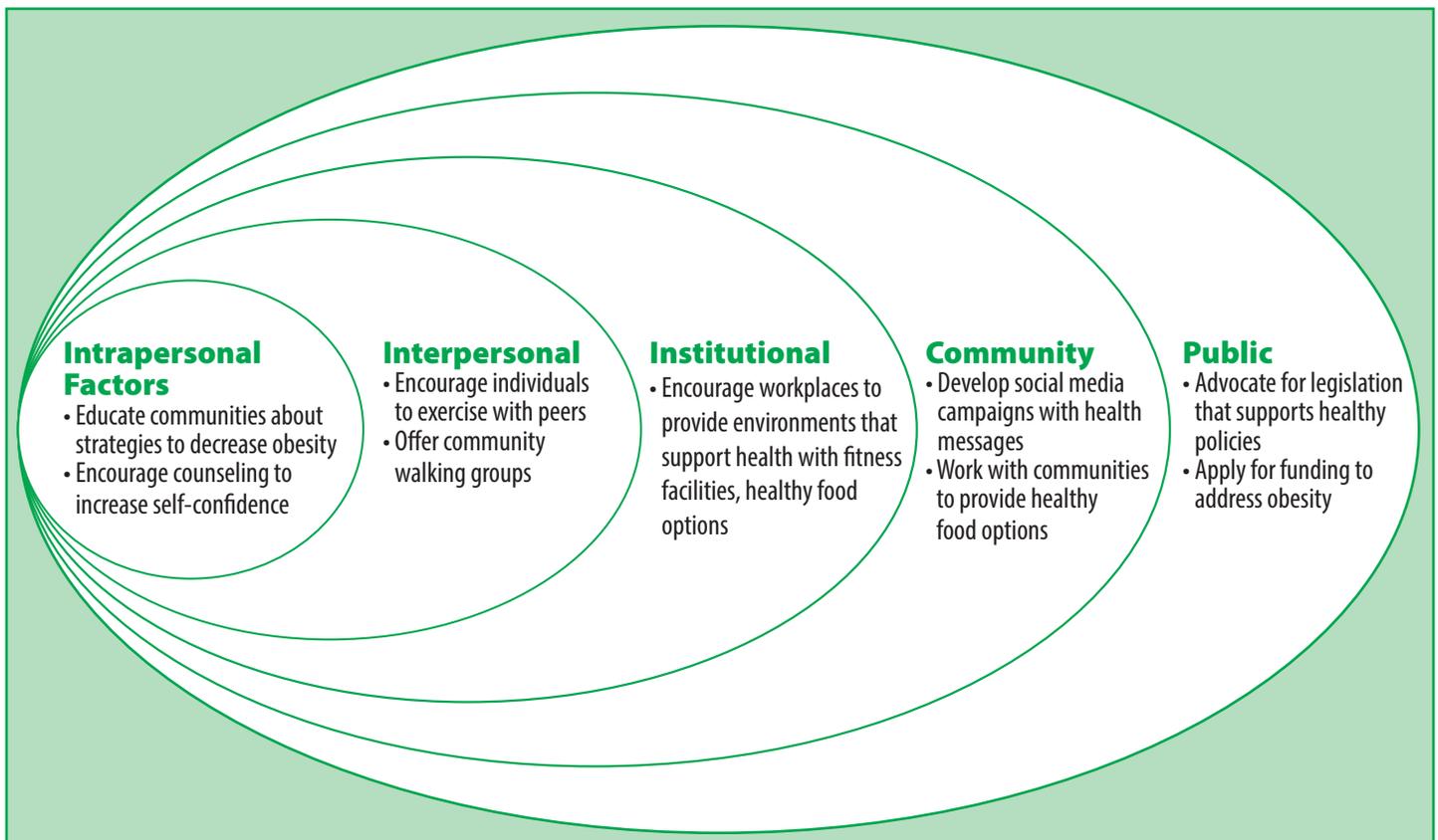


Figure 1. A socioecological approach to obesity. This figure shows interventions that program planners can take at each level of the socioecological model to implement a health program that targets obesity.

Transtheoretical Model (Stages of Change)

The transtheoretical model describes the process of behavior change and accounts for an individual's readiness to make and sustain behavior changes. This model is useful because it helps planners design programs based on an individual's readiness, motivation, and ability.

The model includes five stages (Glanz, Rimer, & Lewis, 2002; NCI, 2005):

- 1. Precontemplation** — in this stage, the individual has no intention to change behavior within the next six months. The individual may lack knowledge or may have been unsuccessful with previous attempts at a change.
- 2. Contemplation** — in this stage, an individual is considering a behavior change within the next six months. Ambivalence, however, may keep the individual from progressing to the next stage.
- 3. Preparation** — in this stage, the individual takes some steps toward making a change and doing so within the next 30 days.
- 4. Action** — an individual reaches this stage once he or she has made an apparent behavior change for six months or less.
- 5. Maintenance** — if the individual's behavior change lasts for more than six months, he or she moves into the final stage, maintenance.

It is important to be aware that this process can be cyclical. Individuals may start at one stage and progress forward, or may go backward. The model includes several other important concepts that help describe factors or activities that occur as individuals attempt to make a behavior change. These include weighing the benefits and costs of making a change, evaluating the impact of the change, finding support for the change, and determining whether or not they can confidently make the change to a healthy behavior (Glanz, Rimer, & Lewis, 2002; NCI, 2005).

While there are some similarities to the socioecological model, this model focuses on helping the individual to move through the stages toward a sustained behavior change.

For example, if a program planner uses the transtheoretical model to address obesity, then the planner must determine the individual's current stage of change in relation to lifestyle behaviors that lead to obesity. In most cases, several behaviors contribute to obesity. Figure 2 shows interventions using this model to address physical inactivity as a contributor to obesity. These interventions are tailored specifically to each stage with the hope that the individual will respond by moving forward in the behavior change process described by this model.

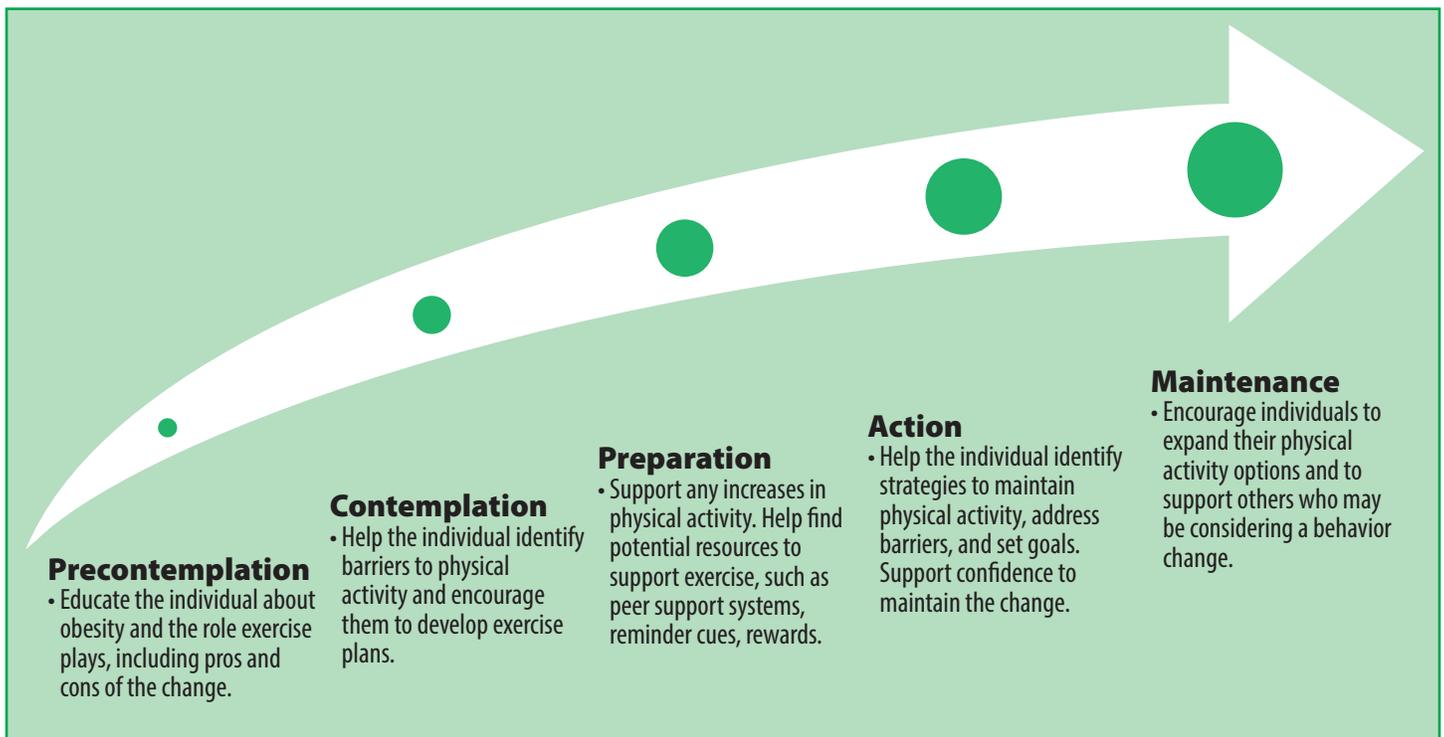


Figure 2. A transtheoretical model approach to physical inactivity. This figure shows interventions that program planners can implement at each stage to support an individual's behavior change related to physical activity.

Health Belief Model

The health belief model is one of the oldest models of health behavior, but is still very relevant when discussing health behavior change. This model addresses the readiness to act upon a health behavior based upon several individual beliefs. These beliefs include:

1. **Perceived susceptibility** — refers to beliefs concerning risk or susceptibility to a condition or disease.
2. **Perceived severity** — refers to beliefs concerning the possible severity of a disease or condition.
3. **Perceived benefits** — refers to the perceived value or benefit of behavior changes in reducing the risk of a condition or disease.
4. **Perceived barriers** — refers to any obstacles or barriers to the behavior changes being considered to decrease risk.

If individuals perceive they are susceptible to a condition (1) and that the condition could be severe (2), they will most likely take action to avoid the condition. The likelihood of action is enhanced if the perceived benefits (3) outweigh the perceived barriers (4).

The model also includes two other constructs: cues to action and self-efficacy. Cues to action are events

that spur individuals toward action. For example an individual may see a television ad featuring a well-known actor discussing weight-loss strategies.

Self-efficacy refers to an individual's confidence that he or she can successfully carry out the indicated actions. If individuals do not believe they can successfully make a behavior change, they are unlikely to do so (Rimer, Glanz, & Lewis, 2002; NCI, 2005).

This model can be very useful in designing health promotion programming. For example, most individuals are very aware that obesity often leads to the development of diabetes. Figure 3 shows how planners can use the health belief model to develop interventions to address obesity to avoid diabetes. In this example, the interventions are aimed at educating individuals to increase their perceived susceptibility to and seriousness of diabetes as an outcome of obesity.

Education also helps individuals discover the benefits of decreasing their risk of diabetes by losing weight. Helping individuals to identify and eliminate barriers may help them see that the benefits outweigh the barriers, thus encouraging actions to avoid the development of diabetes by dealing with their obesity.

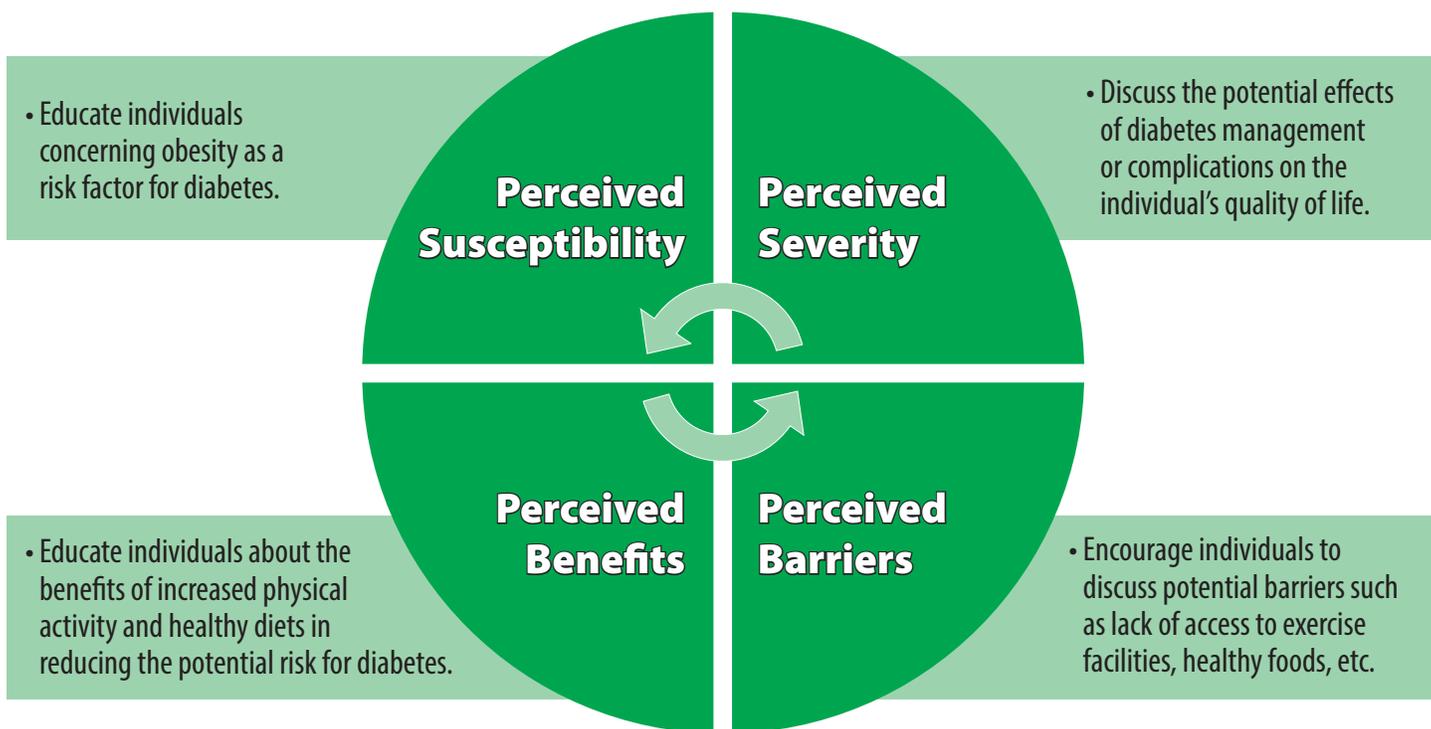


Figure 3. A health belief model approach to addressing obesity as a factor in diabetes. This figure shows interventions that program planners can use to help individuals change their behaviors to avoid the risk of diabetes.

Summary

Each model reflects different, yet related, dimensions of the behavior change process. Determining which model to use will depend upon the situation. In many cases, planners may find that using more than one model is appropriate or that only certain aspects of a model are useful.

Consider a program planner who is working with an obese individual whose family members seem to be able to eat whatever they want without developing diabetes. In such instances, the health belief model may be useful. In this example, the planner may need to enhance the interventions for perceived susceptibility.

If an educator is working with a group of low-income individuals who are dealing with obesity and work for the same employer, the socioecological model may be more useful. The planner may need to aim more effort to create and support healthy work environments and find resources that provide low-income individuals opportunities for exercise and healthy food options.

In both of these examples, the transtheoretical model may help an educator determine what interventions are appropriate to move both groups along the continuum toward behavior change.

Models and theories can help us understand behavior and plan health promotion programming. They also can remind us to consider and address the many variables and factors that affect the behavior change process at the individual, group, and community levels. The three models discussed in this publication are among the most commonly used. However, there are many more models and theories that explain. The availability of multiple models and theories allows the program planner to support design of effective health promotion programs.

References

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