CHAPTER 3

Health Promotion Theories

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OBJECTIVES

At the conclusion of this chapter, the student will be able to:

- Compare and contrast nursing and non-nursing health promotion theories.
- Examine health promotion theories for consistency with accepted health promotion priorities and values.
- Articulate how health promotion theories move the profession forward.
- Discuss strengths and limitations associated with each health promotion theory or model.
- Describe the difference between a model and a theory.
- Identify theoretical assumptions and concepts within nursing and non-nursing theories.
- Develop his or her own health promotion model.

WHY SHOULD HEALTH PROMOTION BE THEORY-BASED?

A variety of authors have commented that health promotion programs typically lack a theoretical foundation or are based on a conceptual model that does not conform to the current values and norms of health promotion practice (Bauer et al., 2003; King, 1994; Stokols, 1996; Whitehead, 2004). Commonly, environmental, social, cultural, economic, and political influences are given scant or no attention within health promotion theories. These factors may well be some of the main reasons a health promotion program that has its design based on a particular theory is not as effective as the author hoped it would be.

Whitehead (2001a) commented that the reliance on health education theories and frameworks may actually pose a barrier to progress in the arena of health promotion.

He emphasized that if the confusion persists between health education and health promotion theories and models, it will be increasingly difficult for nurses to identify when they are implementing health promotion activities and programs. Whitehead (2006) suggested that without a clear theoretical basis, it would not be possible to move forward or ensure that the health promotion components of nursing practice are recognizable.

As we have seen, there has been a shift from individually focused health education to community and environmentally-based health promotion. There has also been a shift from illness-focused priorities, such as disease prevention and health protection, to a focus on complete physical, emotional, and social well-being. We will see if these new priorities show up in the theories and models that are currently providing guidance to practice, research, and education in the health promotion field.

Given the complexity of health promotion practice, multilevel, comprehensive interventions are needed to develop effective programs. It is vital to consider psychological, organizational, cultural, community-level, political, and policy-driven factors that influence health. Targeting one single pattern of unhealthy behavior such as smoking will not be effective if the person also drinks to excess, consumes large amounts of saturated fat, has an irregular sleep pattern, performs a stressful job, and works in an area that has poor air quality. Interventions that target unhealthy lifestyles by simultaneously focusing on multiple factors are more likely to be effective. Theories are needed to provide support for multilevel interventions that produce reliable outcomes. As we will see, not all existing health promotion theories support multilevel interventions.

Theories provide a roadmap and a step-by-step summary of what factors to consider when designing, implementing, and evaluating a health promotion program. It is vital to have a theoretical understanding of why people behave the way they do if nurses are to help a person, a family, a group, or a community improve their health status. Theories provide relevant clues as to why people and communities make health-related choices and offer a systematic way of understanding situations, examining relationships, and predicting outcomes. Theories help explain why an intervention is necessary, how to intervene, and how to evaluate success (Glanz & Rimer, 2005). Glanz and Rimer (2005) suggested that theory "helps practitioners to interpret the findings of their research and make the leap from facts on a page to understanding the dynamic interactions between behavior and environmental context" (p. 43).

The succinct summary or graphic presentation provided by a theory makes complex interrelationships among multiple variables easier to understand (Healey & Zimmerman, 2010). As Green and colleagues (2010) commented, "the role of theory is to untangle and simplify for

human comprehension the complexities of nature. Once the critical components of a complex problem are illuminated by theory, practical applications become possible" (p. 398). The job of a good theory is to present content in enough detail so that it describes the behavior of a large (generalizable) group of people, but also to be simple to understand, implement, and evaluate (Green et al., 2010). Theory provides a broad roadmap that helps explain the dynamics of health behavior, identify effective interventions, select suitable target audiences, and evaluate outcomes (Glanz & Rimer, 2005).

Cole (1995) stressed that all healthcare practitioners need to be introduced to theoretical concepts in their formal education because whether they are aware of it or not, they use theories and models to guide their practice and research efforts. Antonovsky (1996) suggested that without adequate theoretical guidance from a theory or model that is consistent with principles of health promotion, the field is at risk of stagnation. He emphasized that theory is needed to guide the field, provide direction to practice, and structure program evaluation, believing that good theories give birth to good ideas capable of being incorporated into practice.

As Best and colleagues (2003) commented, the field of health promotion has become too complex for any one theory to provide adequate guidance to education, practice, and research. Green et al. (2010) stressed that "there are different ways of knowing, different lenses for viewing reality, and different realities to be known" (p. 401). Different perspectives are needed for different health promotion issues and settings. Glanz and Rimer (2005) agreed that multiple theories are needed to address the varied challenges that arise in health promotion. They emphasized that "effective practice depends on using theories and strategies that are most appropriate to a given situation" (Glanz & Rimer, 2005, p. 6). The key is being able to analyze how well a theory or model fits the given situation, because different theories are needed for individual-level intervention, organizational-level intervention, and community-level intervention. In order to select the most relevant theory for a given situation, it is necessary to become familiar with the numerous multidisciplinary theories that have been used in health promotion practice.

As we explore theories of health promotion, we will look at models that contain abstract, general concepts and do not yet have extensive research-based support as well as theories that have more clearly defined concepts and have been tested in a substantial

number of studies. We will explore the assumptions or beliefs that were taken for granted by the theorist in creating the theory. We will pay attention to the concepts (set of elements or categories) that comprise and distinguish the theory. It may be helpful at times to examine the relationships (called propositions) between concepts within the theory.

In this chapter, we will examine behavioral theories, an intervention-based model, environmental theories, communication theories, and evaluation theories that come from a spectrum of disciplines. We will also review select nursing theories that have relevance to health promotion. It is important to examine the breadth of theoretical health promotion knowledge in order to identify the most practical theories that are able to provide guidance to practice, education, and research.

BEHAVIORAL CHANGE THEORIES

A number of behavioral change theories exist to explain why people do and do not adopt certain health behaviors. Often, these theories examine the predictors and precursors of health behavior. Many of these theories have common elements such as self-efficacy and motivation. Self-efficacy is one's belief in their ability to do something, such as change a health related behavior, and it is grounded in one's past success or failure in the given activity. One's self-efficacy is seen as predicting the amount of effort one will expend in trying to change (Bandura, 1977).

Criticism of many of the behavioral change theories focuses on their emphasis on individual behavior while excluding the influence of environment, sociocultural factors, economic issues, and policy level mandates. Constraints such as chronic exposure to violence, political upheaval, and poor sanitation are ignored in favor of paying greater attention to individual cognitive processes (Stokols, 1996).

Health Belief Model (1966)

The Health Belief Model (HBM) was developed by Irwin Rosenstock in 1966 and has been identified as one of the earliest and most influential models in health promotion. It was inspired by a study of reasons people expressed for seeking or declining X-ray examinations for tuberculosis. Initially the model included four constructs: (1) perceived susceptibility (a person's subjective assessment of their risk of getting the condition, as contrasted with the statistical risk), (2) perceived severity (the seriousness of the condition and its consequences), (3) perceived barriers (both those that interfere with and facilitate adoption of a behavior such as side effects, time, and inconvenience), and (4) perceived costs of adhering to the proposed intervention. Factors related to motivation were subsumed under susceptibility and fear of the disease (Rosenstock, 1966).

In the 1970s and 1980s, Becker and colleagues modified the HBM to include people's responses to symptoms and illness, and compliance with medical directives. The model was extended to include illness behaviors, preventative health, and health screening. Demographic variables (age, gender, ethnicity, occupation), sociophysiological variables (socioeconomic status, personality, coping strategies), perceived self-efficacy (ability to adopt the desired behavior), cues to action (factors that instigate preventive health such as information sought/provided, persuasive communication, and personal experience), health motivation, perceived control, and perceived threat were added to the model (Becker & Maiman, 1975). In recent years the model has been used to predict general health behaviors and positive health behaviors, although when it was originally proposed it was designed to predict actions by acutely or chronically ill clients. In the HBM a health-related action is seen as more likely when the action is viewed as being both cost effective and effective in terms of outcomes (Roden, 2004; Rosenstock, 1966).

Critique of the HBM has been based on the fact that not all health behavior is based on rational or conscious choice. It has also been critiqued for focusing on negative factors and ignoring positive motivations that prompt healthy behaviors (Roden, 2004; Rosenstock, 1974). The HBM also lacks concepts associated with strategies for change. The major complaint has been that the model focuses on individual factors rather that socioeconomic and environmental factors and, therefore, encourages victim-blaming (Roden, 2004).

Theory of Reasoned Action (1975)

The Theory of Reasoned Action (TRA) was developed by Martin Fishbein and Icek Ajzen in 1975. An assumption underlying the TRA is that people routinely consider the consequences of their behaviors before engaging in these behaviors. There are three constructs: behavioral intention, attitude, and subjective norms. In this model, a behavioral intention is a function of the person's attitude about the behavior and subjective norms. Subjective norms are the perceived expectations of key individuals such as significant others, family members, experts, and co-workers. Voluntary behavior is predicted by one's attitude toward the behavior and what important people would think if the behavior was not performed (Fishbein & Ajzen, 1975).

A critique of the TRA is that not all behaviors are under an individual's control, including spontaneous actions, habitual behaviors, and cravings. A second critique is that environmental, economic, and political factors are not part of the theory; like the HRA, it focuses on individual health behavior. The TRA has been tested in a large number of areas including dieting, condom use, and limiting sun exposure, and it has been found to have strong predictive utility.

Theory of Planned Behavior (1985)

Ajzen (1985) extended the Theory of Reasoned Action and developed the Theory of Planned Behavior (TPB) by adding a perceived behavioral control predictor. The concept of perceived behavioral control came from Bandura's work with self-efficacy, and it is used to account for times when people do not have conscious control over their actions as well as when they intend to carry out a behavior but they do not because they lack confidence or control. Ajzen's work emphasized the role of intention and suggested that the likelihood of behavior change is dependent on the amount of control a person has over a given behavior and the strength of their intent to change.

According to TPB, three factors influence intent: (1) the person's attitude toward the behavior, (2) the person's evaluation of how important significant others such as a partner or co-worker consider the behavior to be (subjective norms), and (3) the degree of perceived behavioral control or the perceived ease/difficulty associated with the behavioral change. Ajzen suggested that self-efficacy was a major factor in determining how successful a person will be in changing their behavior, as people who don't believe they have the assets, resources, or ability to change are not likely to do so (Ajzen, 1985). The TPB has been critiqued for focusing on cognitive elements and ignoring the role of emotion in behavioral change. However, it has proven to be an effective model for predicting health-related behavior.

Social Cognitive Theory (1989)

Social Cognitive Theory (SCT) is also known as Social Learning Theory (SLT). Developed by Bandura in 1989, this theory is based on vicarious learning. According to the theory, behavior is learned by observation, imitation, and positive reinforcement. Role models facilitate learning, in that individuals reenact behaviors they have observed directly or seen in the media. The theory also suggests people learn by noticing the benefits of actions that they observe other people performing (Bandura, 1989).

According to SCT, behavioral change is determined by environmental, social, personal, and behavioral elements. Each of these factors influences the other. Behavior is guided by expected consequences. There are six main concepts in Social Cognitive Theory:

1. Reciprocal determinism: the person, behavior, and environment influence one another
2. Behavioral capability: the knowledge and skill needed to perform a behavior
3. Expectations: anticipated outcomes
4. Self-efficacy: confidence in one's ability to take action
5. Observational learning: learning by observing others
6. Reinforcements: responses to a behavior that increase or decrease the likelihood of reoccurrence (Glanz & Rimer, 2005)

According to Bandura (1989), motivation and feelings of frustration associated with repeated failures influence behavior. Bandura discussed two types of expectations: self-efficacy and outcome expectancy. Because self-efficacy is needed to initiate change, it is the most crucial factor, while outcome expectancy is the person's evaluation that the behavior will lead to a positive outcome (Bandura, 1989). According to Macdonald (2000), the most widely recognized feeder theory for health education and health promotion programs is social cognitive theory.

Self-Determination Theory (1991)

Self-determination theory (SDT) is a personality theory that includes behavioral factors. It focuses on the motivation behind choices that individuals make. Self-determination theory was inspired by research into intrinsic motivation, which is the idea of engaging in an activity because it is interesting and satisfying rather than being motivated to achieve a goal or receive an external reward such as money. With intrinsic motivation, a person seeks out challenges that allow for growth. Intrinsic motivation flourishes if linked with a sense of security and relatedness (Deci & Ryan, 1991).

The need for competence, autonomy, and relatedness motivate self-initiated behavior and allow for optimal function and growth. These needs are not learned, but instead are innate and transcend gender and culture. Competence has to do with being effective in dealing with the environment and producing behavioral outcomes. Negative feedback decreases intrinsic motivation, while positive feedback increases intrinsic motivation. Relatedness involves the desire to interact with, be connected to, and care for others. It involves establishing satisfying relationships with others and society at large. Autonomy is the urge to have agency, initiate action, and regulate one's behaviors. It is undermined by offering external/extrinsic rewards and establishing deadlines, but increasing choices increases autonomy (Deci, 1971). Perspective taking, in which those in authority consider the perspective of the client on health-related matters, satisfies the client's need for relatedness and increases a sense of belonging. When healthcare providers offer meaningful and germane rationale for behavioral change, the client's sense of competence increases. Use of neutral language such as 'may' and 'could' instead of 'should' and 'must' increase client autonomy. People who operate autonomously freely choose to adopt a suggested behavior because they see that behavior as important and meaningful (Chatzisarantis & Hagger, 2009).

According to SDT, there are three ways people orient themselves to the environment and regulate their behavior; the orientations are autonomous, controlled, and impersonal. Autonomous orientations result from satisfaction of basic needs. Controlled orientations result from satisfaction of competence and relatedness needs, but not of autonomy needs; rigid functioning and diminished well-being result. Impersonal orientations result from a lack of fulfilling all three needs. Poor functioning and ill health result when a person has or experiences an impersonal orientation (Deci, 1971).

Life goals, according to SDT, include intrinsic aspirations and goals like affiliation, generativity, and personal development. Extrinsic aspirations include goals such as wealth, fame, and attractiveness. Research has shown intrinsic goals are associated with enhanced health and well-being (Deci, 1971).

Three important elements of SDT are that (1) humans desire to master their drives and emotions; (2) humans have an inherent tendency toward growth, development, and integrated functioning; and (3) optimal development actions are inherent but do not happen automatically. People need nurturing from their social environment (including healthcare professionals) to actualize their potential (Deci & Vansteenkiste, 2003).

Elsewhere in the text we will discuss motivational interviewing, a health promotion intervention that is derived from SDT. In motivational interviewing, the nurse explores ambivalent feelings clients have about a topic, such as stopping drinking, going on a diet, or exercising. The supportive atmosphere enhances autonomy and allows people to find their own source of motivation (Markland et al., 2005).

Self-determination theory has been confirmed in a number of correlational studies; however, few experimental studies have examined SDT in relation to promoting health behaviors (Chatzisarantis & Hagger, 2009). Additional experimental research on SDT is needed.

A study based on SDT was conducted with 215 pupils as part of a randomized school-based intervention to change physical activity intentions and self-reported leisure time physical activity behavior. Teachers in the intervention group provided positive feedback, gave rationale for becoming active, and acknowledged how hard it is to exercise. The pupils' sense of choice was enhanced by using neutral language such as "Physical education may be fun" (Chatzisarantis & Hagger, 2009, p. 34). The authors found that pupils who were taught by autonomy-supportive teachers reported stronger intentions to exercise and thus participated more often in leisure time physical activities than did those in the control group (Chatzisarantis & Hagger, 2009). Can you think of a time when someone gave you positive feedback that helped you change a specific behavior? Why does "neutral" language like "may" work better than more authoritarian language?

Transtheoretical Model or Stages of Change Model (1997)

James Prochaska and Carlo DiClemente (1992) posited that willingness or intention to change behavior varies among individuals and within individuals over time. Their Stages of Change Model (SCM) described a person's motivation and readiness to change a health-related behavior. Their initial work was based on experiences of smokers who quit without assistance and those who sought professional help. Prochaska and DiClemente described behavioral change as a five-step process: the stages of precontemplation, contemplation, preparation, action, and maintenance. In the

precontemplation stage, the person may not even be aware of needing or wanting to change or they may be unwilling or uninterested in changing. It is in the contemplation stage that a person develops a desire to change. During the preparation stage, the person plans ways to change. When the new behavior appears on a regular basis, the person has moved to the action stage. After a person has consistently manifested the new behavior for 6 months, they are in the maintenance stage. It is possible for a person to relapse; this is not seen as a separate stage, but a return to a previous stage. In this model a person may cycle through the stages repeatedly before behavioral change finally occurs (Prochaska, DiClemente, Velicer & Rossi, 1992).

The Transtheoretical Model (TTM) evaluates a person's readiness to change their health-related behavior. Concepts such as self-efficacy, change processes, and decision criteria are considered. Some have called the TTM the dominant health promotion model because of the amount of research that has been conducted on it and the attention it has received from the media. The model was developed by analyzing a number of psychotherapy models. Originally the model consisted of four concepts: preconditions for therapy, processes of change, content to be changed, and therapeutic relationship. By 1997, the TTM model had been refined to include five core constructs: stages of change, processes of change, decisional balance, self-efficacy, and temptation (Prochaska & Velicer, 1997).

The TTM focuses more on health-related interventions than on individuals. You may wish to compare TTM with the Tannahill model, discussed next. The TTM is both an intervention and a behavioral model.

As seen in **Table 3-1**, Prochaska and colleagues assert that interventions to change behavior (processes of change) must be matched to the stage of change the person is experiencing. However, systematic reviews have shown that staged interventions are no more effective than non-staged interventions (Reimsma et al., 2003). Other authors have suggested the dividing lines between the TTM stages are somewhat arbitrary (West, 2005) and that there is insufficient evidence of sequential movement through discrete stages (Little & Girvin, 2002). Additionally, critiques have focused on the lack of attention to the environmental, economic, and political influences that impact health behaviors. Finally, instruments used to measure the stages of change have been criticized as not being adequately standardized or validated (Adams & White, 2005). Prochaska addressed these concerns by suggesting that future studies tailor interventions to all the core constructs of the model not just one stage of change (Prochaska, 2006).

The Precaution Adoption Process Model

The Precaution Adoption Process Model (PAPM) is similar to the Stages of Change Model, except that the PAPM focuses on the importance of educating people about health hazards and engaging them in behavioral change. In stage 1 of the PAPM, a

TABLE 3-1 Stages of Change Model: Match Between the Stage of Change and Process of Change

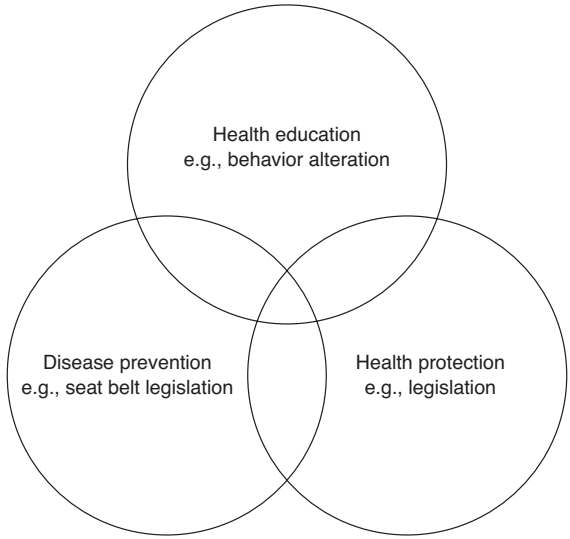
Stages of Change	Processes of Change	Decisional Balance	Self-Efficacy	Temptation
Moving from precontemplation to contemplation	Consciousness raising, dramatic relief, and environmental reevaluation	A person weighs the pros and cons of changing	Situation-specific confidence that people have that they can cope with high-risk situations without relapsing	The intensity of urges to engage in a given habit
Moving from contemplation to preparation	Self-reevaluation			
Moving from preparation to action	Self-liberation			
Moving from action to maintenance	Contingency management, helping relationship, counter conditioning, and stimulus control			

person is unaware of a health hazard. In stage 2, the person becomes aware of the hazard but is not engaged by it. In stage 3, the person decides whether to take action or not; stage 4 is reserved for those who decide not to act, while stage 5 focuses on those who have chosen to act. Stage 6 is acting on the health hazard, and stage 7 is maintenance. Unlike the SCM, in the PAPM one does not cycle back to previous stages (Glanz & Rimer, 2005).

AN INTERVENTION-BASED MODEL: THE TANNAHILL MODEL (1980)

In the 1980s, Andrew Tannahill created a health promotion model consisting of three overlapping spheres of activity: health education, prevention, and health protection (see **Figure 3-1**). He did so in response to a shift in focus within the literature from

FIGURE 3-1 Venn Diagram



Source: Tannahill, A. (2009). Health promotion: The Tannahill model revisited. *Public Health, 123*(5), 397.

health education and prevention to health protection and health promotion. Health education is designed to change the knowledge, beliefs, attitudes, and behavior in a way that facilitates health. Disease prevention aims to decrease risk factors and minimize the consequences of disease; it includes primary, secondary, and tertiary prevention. Health protection focuses on fiscal or legal controls and policies and voluntary codes of practice aimed at preventing ill health and enhancing well-being. Tannahill (2009) asserts that health protection includes public policies that address fair access to housing, employment, education, and health care.

The Tannahill model has been criticized as being clearly within the reductionistic, medical model in that it pays insufficient attention to community-based factors. In response to these critiques, Tannahill (2009) proposed a new definition of health promotion as the "sustainable fostering of positive health and prevention of ill-health through policies, strategies, and activities in the overlapping action areas of: (1) social, economic, physical, environmental, and cultural factors; (2) equity and diversity; (3) education and learning; (4) services, amenities, and products; and (5) community-led and community-based activity" (p. 397). As we will see in the measurement/evaluation chapter, his new definition is consistent with evaluation methods described as action research and

community-based participatory research. Education in his definition includes health education and interventions designed to promote empowerment, such as resilience, self-esteem, and life skills. Services and amenities include preventative care, while products include those that enhance health along with those that damage it.

ECOLOGICAL THEORIES AND MODELS

Ecological theories and models present health as an interaction between the person and their ecosystem or social web, which consists of their family, community, culture, and the physical environment. The interaction between behavior and environment contributes to both health and illness. There is a reciprocal influence in that people are affected by their ecosystem and environment and likewise people affect those systems (Glanz & Rimer, 2005).

Social Ecological Models (1979)

The Social Ecological Model (SEM) is derived from Systems Theory. It consists of person-focused and environment-focused interventions designed to promote health. The word *ecology* refers to interrelationships among intrapersonal factors, interpersonal connections, primary groups, institutional factors, community influences, and public policy. Social Ecological Models focus on how the environment and people influence one another. The SEM assumes that individual efforts at behavioral change will be more likely to succeed within supportive environments. The model targets social, institutional, and cultural environments in addition to biologic processes and geographic issues.

According to the SEM, human behavior is shaped by recurring patterns of activity that take place in structured environments; examples include residential, educational, occupational, recreational, religious, and healthcare environments. These environments have a cumulative and combined influence on well-being. Within these environmental contexts, social roles, personal behaviors, and situational conditions influence both personal and collective well-being. These social roles, personal behaviors, and situational conditions are leverage points that health promotion programs should target to accomplish the maximal amount of behavioral change possible (Stokols, 1996).

Several versions of the SEM have been developed. The initial and most commonly used model was authored by Urie Bronfenbrenner (1979) and is called Ecological Systems Theory. His work was influenced by Kurt Lewin's proposition that behavior is influenced by the person and the environment.

In Ecological Systems Theory, the primary influences are intercultural, community-level, organizational-level, and interpersonal/individual. In this theory

the individual, the organization, the community, and culture are nested spheres like Russian dolls. Actions in one sphere can influence what happens in another sphere. There are micro and macro spheres of influence (Bronfenbrenner, 1979).

One interpersonal microsystem consists of the roles a person plays within his or her social context, such as mother, father, sister, brother, child, employee, friend, peer, or student. These microsystem influences can be learned but are also ingrained based on gender, ethnicity, generational influences, and culture. In this interpersonal sphere personality, knowledge, and beliefs are important in that they are continually shaped by the environment and other individuals with whom one comes into contact (Gregson, 2001).

Mesosystems are organizational or institutional factors that shape and structure one's environment. Policies, acceptable etiquette, and norms of behavior act at this level to shape individual behavior. Schools, companies, churches, sports teams, and community groups are examples of mesosystems (Bronfenbrenner, 1979).

Exosystems are community-level influences that include norms, standards, social networks, and the media. An individual does not have to be an active member in an exosystem for it to have an influence on him or her. For example, one can be influenced by Republican or Democratic initiatives without belonging to either political party, or one can be influenced by Southern culture even if a person recently moved to the South from, for example, California (Bronfenbrenner, 1979).

Macrosystems are cultural influences. Examples include Christianity, Islam, Western thought, the military, and communism, to name a few. Isomorphisms are impacts within one level that affect another level. The impact of an isomorphism is equal in effect in both magnitude and direction across spheres of influence. A discontinuity is an effect on one sphere that results in an unequal, opposite impact on another level. Top-down effects are how macrosystems and exosystems affect individual behavior (Oetzel, Ting-Toomey, & Rinderle, 2006). An example is the government requiring that restaurant menus post information on the fat, carbohydrate, and salt content of food. Bottom-up effects are how individuals or communities influence higher levels. An example of a bottom-up effect is when Mothers Against Drunk Driving helped shape health policy changes.

An advantage of environmental theories is that health promotion strategies that work at this level have the capacity to benefit a large number of people, not just one

individual. Moreover, policy level interventions include passive interventions that do not require sustained effort on the part of an individual. An example of this would be use of child-resistant caps on medicine or the installation of air bags in automobiles; individuals are protected without having to take action themselves. Behavioral change models, on the other hand, target individual change and emphasize active interventions that require voluntary and sustained effort to accomplish behavioral goals (Stokols, 1996).

It is critical to examine barriers such as limited education, income, and geographic mobility when designing health promotion programs based on Ecological Systems Theory. It is also important to include multiple physical, social, and cultural factors that influence health outcomes, including such factors as developmental maturation, genetic heritage, psychological dispositions, behavioral patterns, emotional well-being, and social cohesion (Stokols, 1996). The focus in SEM is on the "congruence (or compatibility) between people and their surroundings as an important predictor of well-being" (Stokols, 1996, p. 286).

There are suggested guidelines for designing and evaluating health promotion programs that derive from the ecological principles within the SEM. Those guidelines suggest one should:

> examine the links between multiple facets of well-being and diverse conditions of the physical and social environment; examine the joint influence of behavioral, dispositional, developmental, demographic factors on people's exposure and responses to environmental hazards and demands; identify sources of person-environment and group-environment misfit and develop interventions that enhance the fit between people and their surroundings; identify behavioral and organizational leverage points for health promotion; consider both personal and other-directed health behavior as targets for change within community interventions; account for the moderating and mediating influences of physical and social conditions on health; design community interventions that span multiple settings and have enduring positive effects on well-being; integrate biomedical, behavioral, regulatory and environmental interventions for health promotion; and use multiple methods to evaluate the health and cost-effectiveness of community programs. (Stokols, 1966, p. 288)

The Salutogenic Theory (1996)

Antonovsky (1996) proposed the Salutogenic Theory (ST) as a conceptual basis for the health promotion movement while addressing concerns that previous models focused excessively on health education, rather than the broader perspective of health

promotion. This theory was also designed to focus on health- enhancing (salutary) rather than risk factors for disease, to view the person in a holistic manner rather than as at risk for a particular disease, and to examine factors that bring a sense of meaning and coherence to life. The focus was on the health of the person (a salutogenic orientation), not the disease (a pathogenic orientation). Antonovsky (1996) emphasized that attention should be on the ease/dis-ease continuum and not the health/disease continuum.

Salutogenesis means the origins of health. Salutogenesis was described as "the process of enabling individuals, groups, organizations, and societies to emphasize abilities, resources, capacities, competences, strengths, and forces in order to create a sense of coherence and thus perceive life as comprehensible, manageable, and meaningful" (Lindstrom & Eriksson, 2009, p. 19).

Two central concepts in Antonovsky's (1996) theory are coherence and generalized resistance resources (GRRs) that help one avoid disease. Generalized resistance resources include external and internal resources that help one to cope with and manage life; they facilitate balance, shape health outcomes, create meaning, help one make sense of the world, and result in strong sense of coherence (SOC). This SOC results in seeing the world as comprehensible, manageable, and meaningful. Coherence is based on cognitive, behavioral, and motivational factors as well as by empowering relationships and meaningful pursuits. Antonovsky suggested that a strong SOC creates movement towards health. When confronted with stresses, people want to be motivated to cope (meaningfulness), to believe the present challenge can be understood (comprehensibility), and to recognize that resources exist that will help them cope with the challenge (manageability). The strength of a person's SOC is shaped by consistency of one's life experiences, underload–overload balance, participation in decision making, social standing, family structure, work type, gender, and genetics. A strong SOC allows one to reach out and use resources to minimize current stressors (Antonovosky, 1996).

The Salutogenic theory has been researched at the individual, group, and population levels (Lindstrom & Eriksson, 2009). A scale, the SOC Orientation to Life Scale, has been created in 29- and 13-item versions for both adults and adolescents. It has been translated into 15 languages and has proved to be a valid and reliable measure.

Antonovosky (1996) called for additional longitudinal research on the theory. He also suggested research attention be given to whether there is a stronger relationship between SOC and emotional, rather than physical, well-being. In addition, he emphasized the need for examining whether a SOC is mediated by emotions or by psychoneuroimmulogy via the central nervous system.

The Salutogenic theory combines cognitive, behavioral, and motivational constructs. Antonovsky (1996) asserted that a SOC is not a culture-bound concept, although he acknowledged the research on the ST has primarily been conducted in Western countries.

The Life Course Health Development Model (2002)

The Life Course Health Development Model (LCHDM) aims to explain how health evolves over a lifetime. Halfon and Hochstein (2002), the authors of the LCHDM, suggest that knowing how health evolves as a person ages is crucial in developing health promotion policy and research. Similar to the Social Ecological Model, the LCHDM asserts that health is a result of multiple determinants operating in a nested genetic, biological, behavioral, social, and environmental context.

One way in which LCHDM differs from SEM is in suggesting these contexts change as a person grows and develops. Second, health development is seen as an adaptive process in which biological, genetic, behavioral, social, and economic contexts all have an influence. Third, critical developmental periods are seen as key to the health trajectory of individuals, as they can result in protective factors or health risks. Fourth, the timing and sequence of all of the factors that influence health shape both individual health and population-based health (Best et al., 2003; Halfon & Hochstein, 2002).

The main aspect of the SEM that was incorporated into the LCHDM was the idea that behavior is embedded within spheres of influence that are mutually reciprocal. However, the LCHDM adds a temporal dimension: Health is viewed as a lifelong adaptive process (Best et al., 2003; Halfon & Hochstein, 2002).

There are several key concepts in the LCHDM. Embedding is the process whereby experiences are programmed into the structure and functioning of the person. This concept has a number of policy implications in terms of critical periods for intervening in early childhood education, nutrition, and social skills training. It also has implications for policy-level intervention during key times for the elderly—who, for example, may become depressed or suicidal due to a decreasing social network, when this was not a problem earlier in life.

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Another concept addresses risk and protective factors. An example of this is research on stress deregulation in adulthood, as stress has a demonstrated link to the development of cancer, hypertension, and cardiovascular disease. Another concept is that of extended timeframes. Early experiences during childhood can influence outcomes in middle and later life. A final concept is that of functional trajectories. This concept highlights the importance of longitudinal research and examining changes in functional status over a lifetime. Policies that support early childhood growth and development

are of critical importance within the LCHDM (Best et al., 2003; Halfon & Hochstein, 2002).

PLANNING MODELS

Planning models are designed for use in community-based settings, not for use with individual clients. They are useful in guiding community needs assessments, planning, implementation, and evaluation.

The Health-Promoting Self-Care System Model (1990)

Susan Simmons, a nurse, developed the Health-Promoting Self-Care System Model (HPSCSM) by drawing heavily on Orem's Self-Care Theory, Pender's Health Promotion Model, and Cox's Interaction Model of Client Health Behavior (which we will discuss later in the chapter). Assumptions of the theory are that "individuals are capable of developing the knowledge, attitudes, and skills necessary for deciding upon and performing health-promoting behaviors; and due to the value of self-care in health promotion, nursing practice is directed toward fostering self-responsibility in the acquisition and maintenance of health-promoting behaviors" (Simmons, 1990, p. 1164).

Basic conditioning factors (social, environmental, perceived health state, and healthcare experiences) and self-care requisites are described as influencing therapeutic self-care demand, exercise of self-care agency, health-promoting self-care, health outcomes, and nursing care. Nursing care also reciprocally influences each of the conditioning factors 1 through 4 (Simmons, 1990). The model includes both environmental and personal factors but it has been critiqued for the amount of emphasis it places on the need for clients to assume responsibility for their own self-care (Whitehead, 2001a).

A Stage Planning Program Model for Health Education/Health Promotion Activity (2001)

In 2001, Whitehead, a nurse, developed the Stage Planning Program Model for Health Education/Health Promotion Activity. It begins with identifying a target group or communities and then having the nurse reconcile their own health beliefs with those of the community they will be working with; identifying needs of the community with input from community members; collaborating with other disciplines to locate needed resources; empowering clients; and involving them in needed social, environmental,

and political changes. The model concludes with participation of community members in evaluation activities (Whitehead, 2001a).

Another branch of the model, which is a variant of the just-described bottom-up approach, is the expert-driven approach. In this branch, community members are considered to be responsible for their own health and are expected to comply with treatment recommendations of the healthcare provider, while standard research approaches are used to evaluate results (Whitehead, 2001a).

The model, with its expert-driven and bottom-up branches, highlights the different planning approaches that are possible. One branch corresponds to the biomedical model while the other is consistent with values of the New Public Health Movement and community-based participatory research.

COMMUNICATION THEORIES

Communication theories are relevant when discussing health promotion because the Ottawa declaration (WHO, 1986) stressed the need for re-orientation of healthcare services. Theories that focus on provider–client communication, provider–provider communication, and the adoption of new technological advances contribute to the re-orientation of healthcare services.

Diffusion of Innovations Theory (1962)

Diffusion of Innovations (DOI) theory, although primarily a model describing the stages of change involved in adopting technological advances, is relevant to health promotion in two ways. First, as we will see in a later chapter, informatics and the use of electronic media has increasingly become a critical part of health promotion. Second, initial attempts at implementation do not always lead to sustained use of a health promotion program or behavior (Glanz, Rimer, & Lewis, 2002; Rogers, 1962). As you read the stages of change included in diffusion theory, ask yourself whether the concepts also describe how a behavioral change is adopted and sustained. Relevant stages of change according to the DOI theory include: knowledge (understanding), persuasion (developing a favorable attitude), decision (weighing benefits and barriers, then committing to adoption), implementation (action), and confirmation (reinforcement based on positive outcomes). Do you think these stages are relevant to behavioral as well as technological change?

To be adopted as an innovation or a planned health promotion, a program must have relative advantage (be better than other options), compatibility (be consistent with existing values, past experiences, and needs), trialability (the ability to be

experimented with on a limited basis), and observability (be able to produce visible results). An innovation or health promotion program must also be easy to use, easily understood and communicated, able to be adopted with a minimal investment of time, able to be undertaken with minimal risk, and able to be used with only a moderate level of commitment (Glanz, Rimer, & Lewis, 2002; Rogers, 1962).

Important roles in the adoption of innovations and health promotion behavior include opinion leaders (those having informal influence over others), change agents (who mediate between the new change and relevant social systems), and change aides (trusted individuals who interact with clients) (Rogers, 1962). Diffusion theory has been used to study the dissemination of AIDS education curricula in schools; the use of new tests, technologies, and pharmaceutical agents as they are incorporated into practice by health professionals; workplace health promotion; and the adoption of safe sexual practices, among other topics (Glanz, Rimer, & Lewis, 2002).

Weick's Health Communication Theory (1969–1979)

Weick's theory (1979) emphasizes the central role of communication and information processing within social groups and institutions. The theory focuses on communication between healthcare providers within organizations as well as client–provider communication. Weick's work is important to consider as a health promotion theory based on the Ottawa declaration, which stated that there is a need for identifying group influences on health. Improving communication promotes the accuracy of information transfer and organizational adaptation (Kreps, 2009; Weick, 1979).

There are three phases in Weick's theory: enactment, selection, and retention. The enactment phase focuses on health-related challenges. In the enactment phase, consumers and healthcare providers must develop the best communication strategies and interventions for addressing the given health issue. In the selection phase, decisions are made about ways of increasing the understandability of communication. In the retention phase, processes are used to preserve what was learned by creating a repertoire of experience about what worked and what didn't. An example of the retention phase is a patient navigator program in which clients who have experienced a healthcare issue help other clients to navigate the healthcare system using their wisdom and past experience (Kreps, 2009, Weick, 1979).

Organizational rules and interaction patterns are used to increase equivocality (message understandability). Each level of organizational participant strives to transform equivocal messages into understandable and predictable messages. Because different individuals are able to manage different levels of equivocality, multiple communication strategies and cycles may be needed to make sense of the information being shared (Kreps, 2009; Weick, 1979). For example, a non-English speaking client who

is presented with detailed information about a crucial diagnosis may feel confused. Rules and cycles are used to help individuals manage equivocal information. Health pamphlets and printed instructions are examples of rule-governed strategies, while examples of communication cycles include establishing a procedure for referring a client to a specialist, having a nurse explain information in the client's primary language, or referring a client to a support group that could help him or her gather needed information (Kreps, 2009, Weick, 1979).

EVALUATION MODELS

Both the RE-AIM framework and the PRECEDE-PROCEED model are useful in evaluating health promotion programs. These frameworks and models are helpful to researchers who are trying to measure the effectiveness of a health promotion program and also to practitioners who are designing interventions.

The PRECEDE-PROCEED Model (1992)

The PRECEDE-PROCEED Model (PPM) is a planning model that came from Johns Hopkins University and was designed as a way to teach students about health promotion. It was also created as a planning, intervention, and evaluation framework. The PPM is based on the assumption that interventions will be effective if they (1) come from the community, (2) are planned thoroughly, (3) are based on data, (4) include interventions the community sees as feasible, (5) include multiple strategies woven into a cohesive program, and (6) rely on feedback and progress evaluation. Green and Kreuter (1992), in developing the PPM, suggested that centrally packaged programs are difficult to adapt to unique settings. Each community must assess its own needs and priorities.

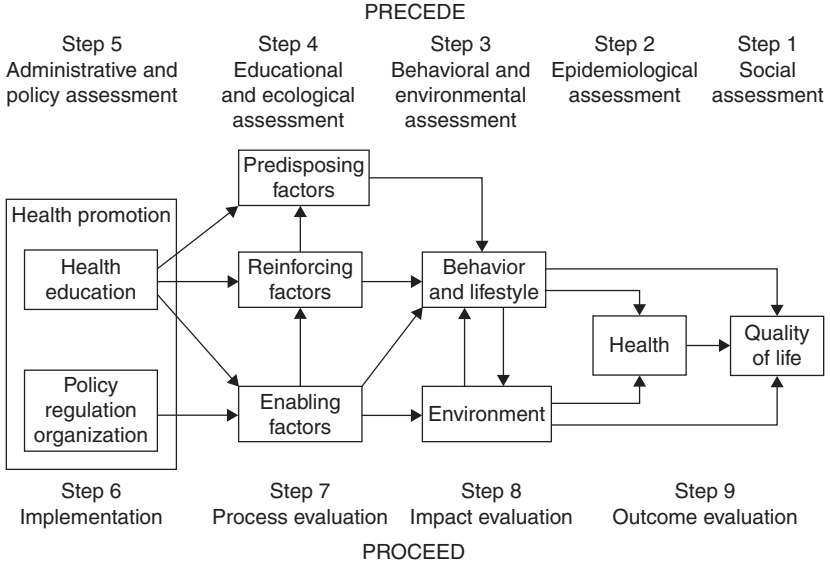
PRECEDE stands for Predisposing, Reinforcing, and Enabling Constructs in Educational/Environmental Diagnosis and Evaluation, while PROCEED stands for Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development. Despite its long name the model is widely used in health promotion practice and community development activities. The PRECEDE portion of the model focuses on identifying educational factors that influence change. The PROCEED portion of the model was added in 1991 to acknowledge the importance that environmental, regulatory, policy, and organizational factors have in shaping health, and it focuses on identifying ecological factors that influence change. The goal of the PPM is to identify the most effective way to promote change by conducting local needs assessments and program evaluations. The model was based on epidemiology,

social-cognitive psychology, education, and management principles (Green, Kreuter, Deeds, & Partridge, 1980).

The PRECEDE-PROCEED model is divided into phases and promotes identification of priorities for action (see **Figure 3-2**). The first step is to conduct a social assessment in which community members and involved participants identify their own health promotion needs. In step two, an epidemiological assessment is conducted using vital statistics and state or national surveys to identify the health problems that have the largest impact on the given community.

During step three, a behavioral and environment assessment is conducted to evaluate factors that contribute to the identified problem. These can be the lifestyles of individuals, environmental factors, or social influences. Each of the factors is ranked according to importance in terms of contributing to the selected health problem and is evaluated based on whether it can or cannot be changed. Those factors that are most important and most changeable are considered the priority targets.

FIGURE 3-2 The PRECEDE-PROCEED Planning Model



Source: Glanz, Rimer, & Lewis. (2002). *Health Behavior and Health Education: Theory, Research, and Practice, 3rd edition.* San Francisco, CA: Jossey-Bass. Reproduced with permission of John Wiley & Sons, Inc.

In step four, the antecedent, predisposing, reinforcing, and enabling factors are considered. Predisposing factors are antecedents that provide rationale or motivation for the health behavior. Reinforcing factors provide continuing reward and are things such as social support, peer influence, and vicarious reinforcement, while enabling factors include services and resources and policies necessary for health. Measurable objectives are also developed in step four.

In step five, intervention strategies are devised and policies, resources, and circumstances within the organizational contexts that influence the intervention are considered. Barriers at this level, such as staff commitment and lack of space, need to be considered. In steps six to nine, process impact evaluations are established to assess the changes in predisposing, reinforcing, enabling, behavioral, and environmental factors that determine the likelihood that change will happen. Outcome evaluations are also identified. Participatory approaches to planning that encourage individual and community-level involvement are key aspects of the model (Best et al., 2003; Glanz, Rimer & Lewis, 2002; Green & Kreuter, 1999).

The goal of the PRECEDE-PROCEED model is to describe proximal, intermediate, and distal outcomes associated with health promotion programs. It has been critiqued for being difficult to use; it is a highly structured, linear effect model, which at times has been implemented incorrectly because of its complexity (Whitehead, 2001a).

The RE-AIM Framework (1999)

The idea that a health promotion program should be efficacious (create a substantial amount of change) and reach a large number of people led to the development of the RE-AIM framework. RE-AIM stands for Reach, Efficacy or effectiveness, Adoption, Implementation, and Maintenance (Glasgow, Vogt, & Boles, 1999). Reach is a measure of how many people can be influenced by the health promotion program. Efficacious and effective programs produce positive outcomes along with few unintended consequences. Adoption focuses on the participation rate (number of people who engage in the health promotion behavior) and whether the setting is representative of a larger population. Implementation targets whether the health promotion program was employed as intended or whether, for example, multiple health educators presented content in different ways, making the outcome hard to evaluate. Maintenance focuses on the long-term utilization of the given health behavior. It also refers to whether a health promotion program is sustainable even if there is a change in available resources. The goal is not to have a health promotion program that is equally effective on all five dimensions; rather, these dimensions help to evaluate a program before it is adopted so that the characteristics that are most important in the given setting can be selected (Glanz, Rimer, & Lewis, 2002).

NURSING MODELS AND THEORIES

There are a vast number of nursing theories. While only those that are most relevant to health promotion are summarized next, it is likely that other nursing theories have some applicability to health promotion as well. Nursing models and theories that focus on health promotion have been critiqued for focusing on person-level issues rather than group or community level concerns (Whitehead, 2001a). However, a number of nursing theories, including Nightingale's, have included a community-oriented perspective. Two nursing models that included a focus on environment, authored by Simmons (1990) and Whitehead (2001a), were discussed earlier under the Planning Model section of this chapter and will not be summarized again in this section.

Nightingale's Environmental Theory (1859)

Florence Nightingale is credited with being the first nurse theorist. She proposed Environmental Theory, which aimed to restore the client to their optimal state of health. She asserted that the client's environment could be used to facilitate his or her recovery and that the nurse was responsible for helping configure the environment such that it supported recovery. Pure air, clean water, sufficient food, efficient drainage, cleanliness, and light were considered necessary for a healthy environment. A quiet, noise-free environment with adequate warmth during cold periods was also considered to be a priority (Nightingale, 1859). The practice of environmental configuration, based on client needs is still practiced today.

Leninger's Transcultural Care Theory (1968)

After completing a doctoral degree in anthropology, Madeleine Leninger spent more than a year with the Gadsup people of New Guinea, during which time she began to work on her theory of cultural care. Leninger's theory focuses on the ways in which cultures and subcultures differ in terms of caring behaviors, nursing care, health beliefs, and behavioral patterns and how caregiver and care recipient roles differ according to culture. Leninger emphasized that a nurse must discern the cultural values and beliefs of a client or family before intervening. She stated that social, religious, political, and economic factors influence how care should be provided (Alexander et al., 1986).

The major concepts of Leninger's theory are care, caring, culture, cultural values, cultural variations, and nursing. Assumptions include: 1) "care has biophysical, cultural, psychological, social, and environmental dimensions that must be explicated to

provide holistic care" (Alexander, et al., 1986, p. 150), 2) care behaviors and goals vary with social structure, and 3) there is no curing without caring. Propositions include:

- "differences among caring values and behaviors between and among cultures leads to differences in the nursing care expectations of care-seekers" (Alexander et al., 1986, p. 150),
- the greater the reliance on technological caring approaches, the greater the interpersonal distance between nurse and client and the lower the satisfaction will be,
- "nursing care interventions that provide culture-specific caring practices result in greater satisfaction" (Alexander et al., 1986, p. 150), and
- the greater the gap between folk caring practices and nursing practice, the greater the level of stress that will be experienced by the client.

Leninger cautioned nurses to evaluate whether the client with whom they are working values self-care or not. The theory was developed specifically for use in cross-cultural contexts, so it does not attempt to be generalizable. It is relevant to this chapter in that cultural beliefs and practices are an integral part of health promotion practice. A criticism of the theory is that it relied heavily on anthropological research and theories (Alexander et al., 1986).

Goal Attainment Theory of Nursing (1981)

Imogene King (1981) created the Goal Attainment Theory of Nursing. Assumptions included the proposition that individuals are social beings, rational beings, reactive beings, perceiving beings, controlling beings, purposeful beings, action-oriented beings, and time-oriented beings. Other assumptions were that perceptions of the nurse and the client influence the nurse–client relationship and that clients have a right to information and should participate in decisions that influence their health (King, 1981).

King's theory is best described by defining the concepts which make up her theory. One concept, health, was defined as the life experiences and continuous adjustments to stressors in one's internal and external environment through optimal use of resources to achieve one's maximum potential. Another concept, environment, was defined as an open system with permeable boundaries permitting exchange of matter, energy, and information. Interaction was defined as "a process of perception and communication between a person and the environment and between person and person represented by verbal and nonverbal behaviors that are goal-directed" (King, 1981, p. 145).

The concept of transaction was defined as an interaction with the environment, while growth and development were defined as helping move from potential capacity for achievement to self-actualization. In King's theory, positive communication increases mutual goal setting between clients and nurses and leads to satisfaction. Goal attainment was seen as decreasing stress, increasing learning, and facilitating coping.

The theory has been critiqued for not defining terms such as controlling being. The theory places the nurse and client on the same level of responsibility for goal attainment and highlights the importance of participatory involvement in goal setting (King, 1981).

Pender's Health Promotion Model (1982)

Nola Pender, a nurse, developed this health promotion model in 1982 and revised it in 1987. This model, which had the aim of helping nurses educate clients with entrenched behaviors such as smoking and drug abuse, has been described as one of the predominant models of health promotion within nursing (King, 1994). Pender (1987) saw health promotion as comprised of activities designed to increase the level of well-being and self-actualization of individuals, families, communities, and society.

Pender's (1982) model consists of a decision-making phase and an action phase. Individual perceptions and modifying factors make up the decision-making phase. Individual perceptions include the importance of health to a person, perceived control, desire for competence, self-awareness, self-esteem, the person's definition of health, perceived health status, and perceived benefits of health-promoting behaviors.

When the desire for control is blocked, it can result in feelings of helplessness and frustration. The desire for competence can motivate a person to acquire knowledge about health. Self-awareness is a health-promoting factor seen in positive habits such as running and meditating. Self-esteem is important because it requires a feeling of self worth and a commitment to set aside time for health promotion (Pender, 1982).

Whether one defines health as an absence of illness or self-actualization influences whether one engages in health-protecting or health-promoting behaviors. Individuals with a poorer perceived health status are less likely to engage in health-promoting behaviors because they feel limited by their poor health; for example, symptoms of pain can interfere with an exercise program. The perceptions of long-term rather than short-term benefits from health-promoting behavior may influence the likelihood of continuing those behaviors. Each individual factor influences motivation and the readiness to engage in health-promoting behavior (Pender, 1982).

Modifying factors include demographic variables (age, ethnicity/race, education, income, gender), interpersonal variables (expectations of significant others, family patterns, interactions with health professionals) and situational variables (prior experience with health promotion and available options). The action phase consists of perceived barriers to action (unavailability, cost, inconvenience, extent of change needed), the likelihood of taking the health promotion action, and cues to action (feeling good as a result of the health promotion behavior, being aware of the potential for growth, advice from others, mass media advertising/campaigns) (Pender, 1982).

The constructs of perceived control of health and cues to action were removed from the revised model. In 1987, the client's history of prior health-related behavior

was added to the model along with perceived self-efficacy and activity-related affect. These later concepts were included based on Bandura's theory (1986). Pender (1987) suggested that cognitive and perceptual factors provide motivation to engage in health-promoting behaviors.

One strength of the model is that a scale, the Health Promoting Lifestyle Profile, was developed to measure the dimensions of health-promoting behavior, including self-actualization, health responsibility, exercise, nutrition, interpersonal support, and stress management (Walker et al., 1987). Pender's model has been critiqued for focusing on cognitive and perceptual factors as influencing health while identifying environmental, situational, and interpersonal factors as only being important to the extent that they modify cognitive and perceptual influences. Pender emphasized the decision-making ability of individuals, their perception of control, and their definition of health as being critical factors. Scant attention was given in Pender's model to the importance of sociopolitical or economic context. In addition, whether perceptual factors precede behavioral change or result from change was not specified (King, 1994). The model has also been critiqued for being focused on preventative, disease-centered, behavioral, and lifestyle-oriented concepts of the health education paradigm rather than addressing broader concepts of the health promotion paradigm (Whitehead, 2009).

Theory of Humanistic Nursing Communication (1983)

Bonnie Duldt and colleagues (1983) developed a theory, called the Theory of Humanistic Nursing Communication (THNC) that focuses exclusively on interpersonal communication among the nurse, the client, peers, and colleagues. Although Duldt's theory is limited in that it focuses exclusively on interpersonal communication, the theory is being included in this chapter because it focuses to a great extent on the influence of bureaucratic and dehumanizing healthcare delivery systems. This is a unique aspect of the theory. As you will remember, a priority identified in the Ottawa Charter was on re-designing healthcare systems; examining factors that create the bureaucratic and dehumanizing aspects within those institutions may help in re-designing them.

One assumption in Duldt's theory that is not consistent with the Ottawa Charter is that growth and change arise from within an individual and are primarily dependent upon personal choice. Another assumption is that decision making is best achieved by communicating with other people. Duldt posits that communication can be either humanizing or dehumanizing. She assumes that the bureaucratic, complex nature of healthcare institutions can result in both clients and healthcare personnel being treated in a dehumanizing manner. Interpersonal communication is seen as the way a nurse becomes aware of and sensitive to the dynamic relationship among the client, the client's environment, and the client's potential. Health, in this theory, is assumed to be linked with feeling human and being treated in a humane way (Duldt et al., 1983).

The concept of nursing in the THNC is defined as an art and science of positive communication, caring, and coaching. Health as a concept is related to self-awareness, adaptation to one's environment, and one's state of being. The concept of a critical life situation is described as a situation in which a perceived threat to health and being occurs; examples include child birth, surgery, or the loss of a parent (Duldt et al., 1983).

The theory acknowledges that nurses have negative encounters with colleagues, administrators, and clients. It presents an approach based on dialogue, equity, and respect as a way to cope with and improve dehumanizing communications (Duldt et al., 1983).

Orem's Self-Care Theory (1985)

Orem's Self-Care Theory consists of three theoretical constructs, including self-care, self-care deficits, and nursing systems. The theory is based on the assumption that all clients wish to care for themselves and should be encouraged to engage in self-care to speed their rehabilitation. A person's self-care is seen as being influenced by developmental stages and life-stage-specific needs in addition to universal self-care needs that all people have (air, water, food, elimination, activity/rest, solitude/social interaction, hazard prevention, and promotion of normality).

Age, gender, living conditions, sociocultural orientation, and health state modify one's ability to perform self-care. Self-care agency, or one's belief that they can engage in self-care, influences those behaviors. Self-care agency is seen when a person seeks information about self-care and decides to undertake self-care behaviors. When clients are unable to care for themselves, they have a self-care deficit and the nurse needs to intervene to provide support until the clients can care for themselves (Orem, 1985).

Orem's theory has been widely researched and has resulted in the creation of three scales designed to measure self-care agency. Those scales include the Denyes self-care agency scale, the Kearney and Fleisher's exercise of self-care agency scale, and the Hanson and Bickel's perception of self-care agency scale (McBride, 1991). You may wish to research those scales in more detail elsewhere. A critique of Orem's theory is that not all cultures value self-care to the same degree.

The World Health Organization (WHO) (2009) conference, held in Bangkok, Thailand, suggested that self-care be incorporated into health promotion activities to a greater extent to revitalize primary care. The WHO encouraged member states to strengthen support structures, enact legislation, provide financing for self-care, and disseminate evidence-based self-care practices. They pointed out that in the information age in which we live, it is common for people to look online for health information, seek out their own resources to manage health-related problems, and to learn about health-promoting activities using technology.

A Social Cognitive Model for Health Promotion Practice in Nursing (2001)

Whitehead (2001b) proposed the Social Cognitive Model for Health Promotion Practice in Nursing (SCMHPPN). This was the second health promotion model created by Whitehead. Concepts in this model include cues to action, cues to non-action, the client's/nurse's reaction to the health threat, regulating factors, perceptions of the client/nurse, cost/reward calculations, and behavioral intent to change.

Cues to action include aspects such as motivation, pressure to succeed, influence of mass media, acceptance by significant others, and support systems, while clues to non-action are concepts such as anxiety, fear of failure, a non-conformist attitude, suspiciousness, and denial. Regulating factors include age, gender, personality, social status, health policies, economic factors, knowledge of the disease, and access to health care. Perceptions include self-efficacy, motivation, and locus of control. Costs of and rewards associated with changing are evaluated at four decision points in the model. Intention to change is not a firm indicator of "program success especially when strong external structural and socio-economic constraints are taken into consideration" (Whitehead, 2001b, p. 423).

The SCMHPPN is a cyclic model that considers the perspective of the nurse and the client. The model reinforces the idea that there may be rationale for a client deciding not to change. The model is unique in this aspect, in that it explicitly describes reasons for not pursuing health promotion activities. This addition could diminish the victim blaming that can occur in the health professions. Although it appears to have been designed for use with individual clients, the concepts presented are also relevant in working with families, groups, and communities.

Interaction Model of Client Health Behavior (2003)

The Interactional Model of Client Health Behavior (IMCHB) was developed by Cox (1982, 2003) because she felt other models did not address the dynamic nature of client–provider interactions and the effect of those relationships on health promotion. The theory is based on the assumptions that clients make competent health-related choices and that clients should be allowed as much control over their health decisions and actions as possible (Carter & Kulbok, 1995).

The first concept in the model, client singularity, focuses on the unique and holistic aspects of the client, including demographic variables, social influences, previous healthcare experience, and environmental resources. These demographic variables are considered to be antecedents to other concepts in the model, and therefore are pivotally important. Some authors have stressed that variables such as social influence, previous healthcare experience, and environmental resources need to be defined with greater specificity in the model (Carter & Kulbok, 1995).

Dynamic variables such as intrinsic motivation, cognitive appraisal, and affective response constitute the second concept within the model. Intrinsic motivation has been defined or operationalized as self-determination in health judgment and behavior, perceived competency in health matters, and internal/external cue responsiveness (Carter & Kulbok, 1995). The client's cognitive appraisal, not the healthcare professional's, is what is of interest in the model. Cognitive appraisal has been defined exclusively as perceived health status. Affective response includes emotions that promote or hinder behavioral change.

The third concept is client–professional interaction, which includes affective support, health information, decisional control, and professional competency. Client–professional interaction is seen as a reciprocal relationship within the model. The amount of health information that is provided must be consistent with the client's needs and must be understandable to the client.

The final concept, health outcome, includes topics such as utilization of healthcare services, clinical health status indicators, the severity of the healthcare problem, adherence to the prescribed regime of care, and satisfaction with care. Relationships between client–professional interaction, intrinsic motivation, cognitive appraisal, and affective response are reciprocal in that a change in one factor affects the others.

Although the IMCHB model has not been tested to the degree that it can be considered a theory, it has been studied in the elderly, women considering amniocentesis, school-aged children receiving diet and exercise interventions, and adolescent cancer survivors. Much of the research has focused on client singularity and health outcomes. Other concepts, including client–professional, interaction need additional study. Carter and Kulbok (1995) asserted that, after a decade of research, the IMCHB is ready for hypothesis testing, rigorous statistical analysis, and evaluation in additional populations. An advantage of the model is that it does focus on the domain concepts of nursing including client, nursing, health, and environment.

An instrument, the Health Self-Determination Index (HSDI) and a corresponding scale for children was developed from research on the IMCHB. This instrument is used to measure motivational components of health behavior. This instrument has been tested with a random sample from the general population, a community-based sample of the elderly, and mothers, and has been translated into Spanish, Chinese, Icelander, Kamir, Laotian, and Vietnamese (Carter & Kulbok, 1995).

An example of the application of the IMCHB model is described by Mathews and colleagues (2008). In this case, a single working mother comes to a dermatology clinic with a 5-month-old infant who has hives covering her face. The baby is in daycare but is cared for by the grandmother in the afternoons. The grandmother has tried various folk remedies including cream of tartar to treat the hives because of the limited financial resources within the family. The mother asks multiple questions about the cost of the office visit and prescriptions. She is concerned that the hives could spread to her other

children. The nurse practitioner (NP) considers the economic situation of the single mother and provides her with free samples of the prescribed medication. A repeat visit to monitor the effectiveness of the medications is arranged, taking into consideration the mother's work schedule. The mother verbalizes understanding of the importance of taking the medication, maintaining proper hygiene, and avoiding allergens. The mother is satisfied with the care her baby received because she feels emotionally supported by the NP. This experience becomes part of her repertoire of healthcare experience, which in turn affects whether she will seek medical care in the future for her family.

Describe how future utilization of healthcare services, the severity of the health issue, adherence to the recommended regime of care, intrinsic motivation, and the mother's satisfaction with the care provided showed up in this case study.

The Self-Nurturance Model (2003)

Mary Ann Nemcek, a nurse, created the Self-Nurturance Model using aspects of the Health Belief Model and Pender's Health Promotion Model. She defined self-nurturance as the "feelings, attitudes, behaviors, and substances that stimulate, foster, and support life and growth of self" (Nemcek, 2003, p. 260). Dr. Nemcek suggested that self-nurturance includes nurturing physical, intellectual, social, emotional, and spiritual aspects of the self. Antecedents include knowledge, ability, and a sense of self. Contextual influences include culture, physiology, personality, demographics, social support, and illness. The model has been critiqued for adding little that is new, other than the concept of self-nurturance, and for needing additional research to support it.

HOW ARE THEORIES CONSTRUCTED?

The process of creating a theory begins with identifying concepts that influence health promotion by reviewing the literature or conducting research. The next step is to cluster related terms or concepts and eliminate any redundancy or overlap. Simultaneously, one considers whether there is any opposing or contradictory ideas within the concepts that have been identified, and it is best to eliminate contradictory ideas so the theory is internally consistent. Often sketching a picture, diagram, flowchart, or concept map helps to identify linkages between the concepts in the model. A list of assumptions that a person must believe to agree with the model are also provided. The final step needed to translate a model into a theory is to publish the model and design and conduct numerous research studies to test it.

Momentum Theory: An Example Of Theory Construction

I used the same approach just described to design my theory, which I have called Momentum Theory. Momentum Theory incorporates ideas from Newton's Second Law of Motion, the Health Belief Model, the Theory of Planned Behavior, the Transtheoretical Model, Ecological Systems Theory, Salutogenic Theory, the Life Course Development Model, Diffusion of Innovations Theory, and Pender's Health Promotion Model.

My theory is called Momentum Theory because most behavioral change (whether it is to modify an unhealthy behavior or to add a health-promoting behavior to one's life) requires substantial momentum and initial effort to get the ball rolling. When set in motion and rooted into daily life, habit patterns have their own sustaining force. Engrained habit patterns have a self-propelling nature, an ease of action associated with them. That momentum, once established, carries you along in a set direction or trajectory.

Assumptions of Momentum Theory include:

1. Health is a habit pattern that is shaped by one's daily activities, cultural background, family history, past experience, environment, economic situation, and future hopes.
2. A substantial amount of effort is required to adopt any new habit pattern.
3. Both external and internal forces motivate change.
4. Both pleasure and fear motivate behavioral change.
5. Habit patterns can be conscious or unconscious, health promoting or a detriment to health.
6. Sustained momentum requires balance between physical, mental, social, psychological, and spiritual factors.

Concepts within my theory include: (1) momentum, (2) roadblocks to change, (3) forces that get the ball rolling, (4) forces that provide ongoing impetus for change, (5) forces that help a person get past the plateaus where change seems to slow, and (6) habit patterns.

Momentum is defined as the amount, force, and duration of change required to sustain a new health habit. Engaging in healthy behavior on a regular basis has a self-sustaining aspect to it. It is also the case that, to initiate a behavior change, a substantial amount of effort is required to overcome past habit patterns.

Roadblocks to change are those things that interfere with, get in the way of, detour, or inhibit healthy habit patterns. Examples of roadblocks to change include; having to change rather than wanting to change; a lack of commitment to the planned change; time constraints; competing priorities; feeling overloaded or stressed; the amount of inconvenience associated with the change; a past history of not being successful with

behavioral change; a staunch reliance on unhealthy comforting behaviors; policies, circumstances or laws that undermine health or interfere with change; environmental or psychological cues that tempt one to make unhealthy choices; and lack of money or resources.

A number of forces can either be a roadblock to or impetus to change depending on the person and their cultural, economic, environmental or family background. Therefore, change must begin with a through discussion of the person's or the community's history. Factors that can be either a roadblock or an incentive include: (1) engrained family patterns, cultural patterns, or learned behavioral patterns; (2) the perceived level of control over the given behavior; (3) the perceived threat (susceptibility and severity) associated with a particular health pattern that is being targeted; (4) the perceived health status of the person/community; (5) the person's or community's feeling of self-worth or lack thereof; (6) the degree to which the person/community intends to or wants to change; (7) past interactions with significant others, friends, co-workers, or healthcare providers related to the given behavior; (8) the person's/community's developmental stage of life; (9) the person's or community's narrative understanding (self image developed over time) and how that is shaped by the given health pattern; (10) unintended consequences of changing (side-effects); and (11) cultural, social, or gender-based norms and/or roles.

Forces that get the ball rolling are those factors that motivate one to initiate change. Examples include a perceived threat to one's health or daily routine associated with maintaining one's current habit pattern support, reinforcement, interest or coaching from significant others, healthcare providers or one's environment; clear benefits associated with the new habit pattern; or imaging positive future advantages associated with the change.

Forces that provide on-going impetus for change are those factors that help a person maintain behaviors that support their health-related goals. These forces include any of the listed forces that get the ball rolling or a sense of purpose, focus or meaning experienced during the process of changing.

Forces that help a person get past the plateaus where change seems to slow include the forces that provide impetus to stay the course and persist despite a lack of progress such as an ability to delay gratification; a strong investment in or commitment to the planned change; pleasure associated with the new habit pattern; skill in imaging future gratification that could result from the change; a strong investment in the new habit pattern; the ability to identify reasons for persisting with the new habit pattern; or the ability to identify small steps that indicate progress.

Habits patterns are attitudes or behaviors created from repetitive experiences or inherited from one's family or their social/cultural/environmental/economic background that affect your health. Habit patterns can be conscious or unconscious, health promoting or a detriment to health.

Several relational statements explain how these concepts are linked. Relational statements include:

1. larger habit pattern changes require greater effort
2. a substantial amount of effort over a short period, or a lesser amount of effort over an extended period, can both result in a new habit pattern (change can be radical or gradual)
3. the amount of pleasure one obtains from healthy habit patterns must exceed the amount of pleasure one obtains from unhealthy habit patterns,
4. the forces that provide impetus for change must be greater than the roadblocks that interfere with change if progress is to be made,
5. future anticipated gratification associated with maintaining one's health goals must exceed the gratification obtained from engaging in unhealthy habit patterns,
6. cultural, environmental, social, and economic factors can impede or support change,
7. balance (mental, physical, psychological, social, and spiritual) results in momentum,
8. imbalance (mental, physical, psychological, social, and spiritual) causes one to veer off center and detours health promoting action.

To understand Momentum Theory, imagine a car that has to accelerate over a small incline to begin its journey, and then gains speed as it travels down a long mountain road. Along the way, the car (representing the person experiencing change) can encounter unexpected roadblocks that derail its journey (such as a rock slide or detour). The car can also gain momentum from a strong tail wind or an open lane unblocked by other cars. The car can encounter a steep grade where little progress is being made (a plateau), and its speed drops unless extra gas is applied.

The main idea of Momentum Theory is that it requires effort to establish new habit patterns. Habit patterns have a driving force or thrust within them that structures life. Once a new habit has been established, the habit pattern itself has a momentum and an influence that is felt every day, whether one thinks about the habit pattern on a conscious level or not. Habit patterns actually define who we are in many ways. As Heidegger (1962) said one is what one does. Repetitive action has the power to shape a person's attitude, perception, hopes, and future action as well, unless a substantial amount of effort is devoted to changing one's habitual trajectory. One is pulled along by forces that facilitate change and pulled off track by roadblocks that impede changing. During plateau periods where little change seems to be accomplished, sustained motivation is needed before progress can be seen.

As you read through my theory, jot down a few notes about which parts of Momentum Theory derived from other theories that we discussed in this chapter. What

is one unique aspect of Momentum Theory? Should Momentum Theory actually be called a theory or a model? Explain your answer.

Also, consider the following case about Vicki and how you would use Motivation Theory to help her. Vicki had lost 40 pounds on three different occasions in her life: once at the age of 25, again at 37, and finally at 45. Now, at the age of 58 she was having little success with her goal of losing 50 pounds. She mentioned that, in the past, "falling in love" always helped her lose weight but at this point in life she felt little motivation to discipline herself. She reminded herself that losing weight was an important goal since everyone in her family had been overweight and developed type 2 diabetes late in life. Vicki had a stressful job, a 3-hour commute per day, loved to cook, and expressed an avid disdain for exercise.

Which roadblocks interfering with Vicki's weight loss would you talk to her about first? What factors would you build on to help motivate Vicki to stick to her weight loss program? What else would you want to know about Vicki before you proceeded to coach her about weight loss?

CHAPTER EXERCISES

DISCUSSION QUESTION ONE

Which Theories Are the Best Fit for These Two Health Promotion Programs?

1. A nurse was working in an African American church helping to design a weight loss program for overweight female teens. She wanted to involve teens, parents, and church personnel in designing and implementing the program to ensure it would be supported by the community. The nurse believed that change is best designed by the community that will benefit from the health promotion program. She had a small grant to hire church members to help with data collection and dissemination of the study results. Which theories could she use in her grant and in the publications that are consistent with her assumptions and approach?
2. A nurse was working with a group of clients who had just received an organ transplant. The nurse wanted to encourage the clients to take their prescribed medications to ensure the transplant was a success. The nurse devised a program whereby in one group, medications were mailed to the client's home a week before their prescription ran out so that clients did not have to leave home to get their prescription refilled and risk exposure to a virus. In a comparison group, clients were given a wristband that beeped at preset intervals (corresponding to the client's medication schedule) to remind them when it was time to take their medications. The study also had a control group that received the

usual care without the medication mailing and wristband reminder. The nurse designed the study to evaluate the effectiveness of self-care interventions for transplant clients. Which theory or model should the nurse use in writing up the results of the study in a nursing journal?

DISCUSSION QUESTION TWO

Describe the similarities and differences between the two models that Whitehead developed namely: (1) The Social Cognitive Model for Health Promotion Practice and (2) The Stage Planning Program Model for Health Education / Health Promoting Activity. Why do you think Whitehead developed two health promotion models?

DISCUSSION QUESTION THREE

Think about the various health promotion values and consider whether the theories discussed in this chapter are consistent with these principles and values. List the names of the theories discussed in this chapter beside each value outlined below so you can track how many theories support each value or principle.

1. Views health as including well-being, not just the absence of disease

   _____

2. Considers social factors that influence health

   _____

3. Emphasizes cultural factors that influence health

   _____

4. Attends to economic factors that influence health

   _____

5. Considers environmental factors that influence health

   _____

6. Focuses on political or policy-level influences that shape health

   _____

7. Encourages a bottom-up or community-based participatory approach to promoting health

   _____

8. Includes interventions that are more broad ranging than just health education

   _____

9. Encourages multifactor and multidisciplinary research

   _____

10. Promotes client or community-level empowerment

    _____

11. Helps re-orient health systems

12. Focuses on equity, health, disparities, and equal access

13. Maintains consistency with the WHO settings–based focus on the workplace, hospital, university, school, prison, or church

14. Testing of the theory has resulted in development of a standardized scale or method of evaluating health outcomes

15. The theory is understandable, practical, and would be easy to use when designing a health promotion program

DISCUSSION QUESTION FOUR

Compare and contrast nursing and non-nursing theories discussed within this chapter in terms of their strengths and limitations.

DISCUSSION QUESTION FIVE

Describe which theories summarized in this chapter would and would not provide a good framework for multilevel health promotion interventions.

DISCUSSION QUESTION SIX

Which theories described in this chapter target individual, group, and population level change?

CHECK YOUR UNDERSTANDING

Match the following statements with the theory that most accurately addresses the comment.

Quotes

1. "All my family smoke, so it seemed natural to start smoking."
2. "I trust my nurse practitioner because he understands how my knee pain affects my ability to exercise."

3. "I can't bring myself to start a diet because I always gain any weight that I lost back."
4. "Diabetes can cause you to lose your eyesight, so I need to keep my blood sugar under control."
5. "I worked around asbestos when I was in my 20s and I know that could lead to health problems down the road."
6. "I have appreciated the patient navigator program, it made dealing with my diagnosis of breast cancer much easier."
7. "I realize I need to start exercising if I want to have more energy."
8. "I am so tempted by Chardonnay, I can't avoid it."
9. "I can still sew, and that brings meaning to my life."
10. "You can't talk to me in that tone of voice just because you are a nurse and you think you know what is best for me!"
11. "I run because I enjoy running."
12. "Exercising to lose weight is a better way to go than dieting."
13. "You could think about ways to decrease your salt intake as one way to manage your blood pressure."
14. "I take calcium every morning to protect my bone density."
15. "Being a new mother at age 40, who was called to active duty military service in Iraq, hasn't been easy."
16. "It's important to begin with a needs assessment before planning or implementing a health promotion program."
17. "I have a goal now, I can begin my exercise program."
18. "I get depressed during the winter when I can't be out in the sun as much as my body seems to want."
19. "I saw gum advertised on TV that helps you quit smoking. I think that will work for me."

Theories

A. Theory of Reasoned Action (TRA)
B. Goal Attainment Theory of Nursing (GAT)
C. Theory of Planned Behavior (TPB)
D. Interaction Model of Client Health Behavior (IMCHB)
E. Social Learning Theory (SLT)
F. Transtheoretical Model or Stages of Change Model (TTM)
G. Self-Determination Theory (SDT)
H. Duldt's Theory of Humanistic Nursing Communication (THNC)
I. Health Belief Model (HBM)
J. Tannahill Model (TM)
K. A Social Cognitive Model for Health Promotion Practice in Nursing (SCMHPPN)

L. The Life Course Health Development Model (LCHDM)
M. Social Ecological Model (SEM)
N. Nightingale's Environmental Theory (NET)
O. PRECEDE-PROCEED MODEL (PPM)
P. Diffusion Theory (DOI)
Q. Weick's Health Communication Theory (WHC)
R. The Salutogenic Theory (ST)

Create Your Own Health Promotion Theory

Remind yourself of the definitions of health promotion, the principles of the new health promotion movement, and the concepts that were included in the health promotion theories. Also, think back to a time in your life when you made a major change that influenced your health. From these, create a list of the concepts that you believe contribute to health promotion. Cluster related terms (concepts) and eliminate redundancy. Next, sketch a picture, diagram, flowchart, or concept map that describes the linkages between the concepts in your model. Summarize the assumptions that one must believe to agree with your model. The final step needed to translate your model into a theory would be to conduct research studies and publish your results.

WHAT DO YOU THINK?

Provide Rationale for Your Answers.

1. Which theory do you see as most relevant to health promotion practice?
2. Which is your favorite theory? Why is it your favorite?
3. Which theory is the least likely to be of value in facilitating the promotion of health at the community level?
4. Which theory is most relevant for an acute care, inpatient setting such as a hospital?
5. Which theories are not well supported by research?
6. Which models are well-situated to become theories in the near future?
7. Which theory provides the best guidance in terms of creating measurable health outcomes that can be researched and evaluated?
8. Is there a need for additional health promotion theories? Why or why not?
9. Which theory contains concepts or language that is difficult to understand?
10. Which theory is the most pragmatic and would be easiest for clinicians and community members to use?
11. Which theory includes assumptions (taken for granted beliefs) that you disagree with?

12. Which theory would you use to guide your thesis work in the area of health promotion?
13. Describe which disciplines have contributed models or theories that are still being used in health promotion practice today.
14. Do you agree with Antonovsky (1996) that good theories give birth to good ideas that can be incorporated into health promotion programs? Please explain your answer.
15. Should health promotion theories and models be stage-based? Do you think health promotion occurs in stages? Explain your answer.
16. Discuss key similarities you have noticed among some of the theories in this chapter. Name the theories that are similar and describe any areas of commonality.
17. Which theories or models built on work that had been done by another theorist?
18. What is the difference between self-efficacy and self-determination in the theories described in this chapter?
19. Think of a health-related behavior you would like to change or have changed in the last year. Which of the models or theories would provide the best guidance to you in implementing that change?
20. What is an assumption? What is a concept? What is the difference between a model and a theory?
21. Do you agree or disagree with the statement that the field of health promotion has become too complex to be guided by any one theory? Explain your answer.

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