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# EMERGING THEORIES IN HEALTH PROMOTION PRACTICE AND RESEARCH

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## Strategies for Improving Public Health

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## CHAPTER ONE

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# UNDERSTANDING AND APPLYING THEORY IN HEALTH PROMOTION PRACTICE AND RESEARCH

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**H**ealth promotion has become integral to our efforts to improve public health. Goals of health promotion include the primary and secondary prevention of disease and health-compromising conditions. Many nations have embraced health promotion as an approach to extending and enriching the lives of their people. For example, in the United States, the U.S. Department of Health and Human Services (2000) established two overarching goals: to increase the quality and years of healthy life and to eliminate health disparities. The broad scope of objectives designed to achieve these ambitious goals presents an enormous challenge to the discipline of health promotion. Fortunately, the past few decades have witnessed rapid advances in the development of behavioral and social science theory designed to enhance our ability to achieve the health promotion objectives for the nation.

Behavioral and social science theory provides a platform for understanding why people engage in health-risk or health-compromising behavior and why (as well as how) they adopt health-protective behavior. Understanding the diverse individual, familial, social, and cultural factors that influence an individual's adoption or maintenance of health-compromising behavior can be extremely useful when applied to planning, implementing, and evaluating health promotion programs (de Zoysa, Habicht, Pelto, & Martines, 1998; Hochbaum, Sorenson, & Lorig, 1992). Thus, theory development and application in the behavioral and social sciences can effectively contribute to improved public health (Smedley & Syme, 2000).

Unfortunately, the full potential of the behavioral and social sciences to promote health-protective behaviors has only been partially realized (Smedley & Syme, 2000). One reason for this may be found in the observation that behavioral and social science theory has yet to reach a pinnacle of utility. Indeed, theories are seldom static; instead, they are often evolving or undergoing modification (Wallander, 1992). Dynamic theories capture the inherent complexity in the interplay of changing factors that influence human behavior.

Theory, research, and practice are interrelated. As theory-guided practice and research unfold, empirical findings subsequently suggest needed refinements in the theory that was applied (Glanz, Lewis, & Rimer, 1997; Jenson, 1999). Although the evolution of theory is an expected and desirable consequence of research and practice, one inherent difficulty is conveying the substance of these emerging theories to the health promotion professionals who will ultimately apply theory in their practice and research and, as a result, contribute to the evolution of a particular theory by testing its utility.

The purpose of this book is to provide readers an understanding of new developments in the field of behavioral and social science theory as applied to health promotion practice and research. We begin with a brief discussion of why theory is important in health promotion practice and research and proceed to describe a trajectory of theory development. We conclude with an overview of the new and emerging theories that will follow in the remainder of the book.

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## **The Role of Behavioral Theory in Health Promotion Practice and Research**

Health promotion is newly emerging and transdisciplinary, with a singular focus: enhancing health and preventing disease. As a relatively fledgling field, health promotion does not have a long legacy of scientific theory, principles, and axioms to provide a foundation for informing research. Indeed, one measure of the growing strength and multidisciplinary nature of health promotion is the degree to which other social and behavioral sciences and medical disciplines participate and are engaged in the development of theories, research methodologies, and application techniques in health promotion.

The range of theoretical approaches in health promotion practice is eclectic and diverse, a reflection of the discipline itself. Theoretical approaches from a broad spectrum of disciplines have been used. Indeed, health promotion is currently a highly diverse and multidisciplinary field of practice and research. This diversity is important because advances in health promotion are most readily made through the use of interdisciplinary approaches. In a sense, theory can be

viewed as a focal point that brings this diversity into a unified set of propositions about people and their health behaviors.

Behavioral theories are composed of interrelated propositions, based on stated assumptions, that tie selected constructs together and create a parsimonious system for explaining and predicting human behavior (Babbie, 2001; Kerlinger, 1986; Wallace & Wolf, 1986). Generalizability and testability are paramount properties of theory (van Ryn & Heaney, 1992). Generalizability implies that good theory is robust and therefore may be applicable across diverse venues, populations, and social environments, and testability dictates that theory must be open to falsification through directly derived testable hypotheses.

Behavioral and social science theory provides a bridge between biomedical technology (for example, vaccines, screening tests, and identification of risk-reduction practices) and the application of these advances to improving public health. For example, the development of a vaccine and Food and Drug Administration approval of it may not necessarily be followed by widespread acceptance of this vaccine among people at risk of a particular disease (an example is hepatitis B vaccine; see Centers for Disease Control and Prevention, 1995; Francis, 1995). In response,

theory-guided interventions may serve as catalysts to promote voluntary use of biomedical advances, such as zidovudine therapy to prevent perinatal transmission of human immunodeficiency virus (HIV) among HIV-seropositive pregnant women (see Curran,

***Although theory is not a panacea, it does provide a conceptual framework for selecting key constructs hypothesized to influence health behavior.***

1996), or epidemiological information, such as evidence from the Framingham study that established primary and secondary risk factors for coronary vascular disease. Theory also provides insight into diverse psychosocial factors that contribute to and maintain health risk behaviors (McLeroy et al., 1993). Although theory is not a panacea, it does provide a conceptual framework for selecting key constructs hypothesized to influence health behavior and thus provides a foundation for empirical investigations, intervention development, implementation, monitoring, and evaluation (Glanz et al., 1997). Theory also aids the complex process of organizing and understanding information obtained from these efforts. In addition, theory provides a useful reference point to help keep research and implementation activities clearly focused.

Although behavioral and social science theory offers numerous advantages for health promotion practice and research, it is important to recognize that theories that are instrumental in focusing empirical investigations or guiding the design and implementation of health promotion programs can be a double-edged sword. On the one hand, the reason for theory is to help guide the selection of important constructs thought to exert impact on health behavior. On the other

hand, by targeting a specific range of theoretically important constructs for examination or as a foundation for designing health promotion programs, theory limits the breadth of observations and investigations and the scope of intervention efforts. Wallander (1992) succinctly captured this paradox when he noted, "Obviously being a way of seeing, a theory can also be a way of not seeing, a potential drawback of theory-driven research. Theory can clearly bias or even blind the researcher" (p. 530).

In the discipline of physics, for example, the influence and current paradigm of the observer (a scientist) is acknowledged as a potential source of bias (Briggs & Peat, 1984). In the discipline of public health, the practice of deductively testing theory in the context of interventions applied to specific health problems may also bias our observations (see Buchanan, 1994, and McLeroy et al., 1993, for elaboration of this concept). This bias may be inevitable given that health behaviors are typically influenced by a diverse array of individual, cultural, and contextual factors that may not be amenable to explanation by any single theory (McLeroy et al., 1993). Yet from a logical positivist perspective, theory should be able to explain parsimoniously and predict even the most complex human behaviors—for example, tobacco addiction, substance abuse, and sexual risk taking. Thus, one issue previously debated in the field of health promotion is whether theory should be specific to given health behaviors and their corresponding interventions or more broadly applicable across multiple health behaviors and interventions (Buchanan, 1994; Green et al., 1994; McLeroy et al., 1993).

With increasing recognition that morbidity and mortality for both adolescents and adults is predominantly linked to behavioral and social factors (McKinlay & McKinlay, 1977; McGinnis & Foege, 1993; Murray & Lopez, 1996; DiClemente, Hansen, & Ponton, 1996; Smedley & Syme, 2000), the role of behavioral and social science theory in public health becomes more prominent. In the coming years, noncommunicable disease, such as tobacco-associated coronary heart and pulmonary disease and malignancies, is expected to account for an increasingly larger proportion of the global disease burden (Murray & Lopez, 1996). These diseases are typically amenable to behavioral and social interventions. Communicable diseases, such as HIV and tuberculosis, and emerging communicable diseases, such as Lyme disease and pulmonary hantavirus, may also require solutions that include modification of behavioral and social factors. The HIV epidemic is a primary example (Garrett, 1994). Thus, there is a continual need to expand and refine theories that may ultimately prove invaluable in informing and guiding the design and implementation of health promotion programs. Theory expansion and refinement is occurring in response to accumulating empirical evidence obtained through research and evaluation in combination with the iterative process of theory development and testing.



## A Trajectory of Theory Development

Theory development is a dynamic process. Systematic and consistent use of theory across a range of behaviors, settings, and cultures is necessary to advance the science of health promotion. Robust theories are flexible, accommodating a wide range of populations with different cultural perspectives. Constantly reevaluating the explanatory and predictive capacity of theory allows the discipline of health

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promotion to grow and mature. By definition, any maturational process involves change. Thus, as theories become less useful (that is, they explain an insufficient amount of variance in particular risk behaviors) or are found wanting as a foundation for guiding the de-

sign and implementation of behavior change interventions, they are modified or even discarded in favor of potentially more useful theories. This process of development, elimination, and replacement is gradual. As new theories are synthesized and embraced, they too are subject to empirical validation, and if they are found lacking, they are similarly discarded.

Traditionally, behavioral and social science theories tended to focus on identifying, quantifying, and understanding the impact of individual-level determinants of specific health behaviors. For example, the Health Belief Model, the theory of reasoned action, and the theory of planned behavior have been widely applied to health issues such as vaccine acceptance (Armstrong, Berlin, Sanford-Schwartz, Probert, & Ubel, 2001; Liao & Zimet 2000; Zimet, Blythe, & Fortenberry 2000), understanding why people do not adopt HIV-protective behaviors (see Fisher & Fisher, 2000, for a review), and what psychosocial factors predict mammography use (Michels, Taplin, Carter, & Kugler, 1995; Montano, Kasprzyk, & Taplin, 1997). Theories have also been developed to guide intervention programs that target individual-level determinants of health behavior; an example is the Transtheoretical Model.

In many respects, individual-level theories have dominated health promotion efforts. Waldo and Coates (2000) noted, for example, that “virtually all of the psychological theories that have been applied to explain HIV risk behavior locate it at the individual level” (p. S24). Possible reasons for the widespread use of individual-level theories may be that (1) they tacitly posit the individual as the key decision maker responsible for his or her health and, as a corollary, they posit that individuals can implement changes to enhance their health; (2) they assume that people value good health and will make the necessary changes to reduce behaviors associated with adverse outcomes of poor health; (3) they assume that behavior is

under volitional control; (4) they assume that cognitive predisposition, such as beliefs, attitudes, and perceptions, drives health behavior; (5) they entail relatively manageable study and analytic designs (for example, the randomized, controlled clinical trial design can be used to test the efficacy of interventions delivered to individuals and small groups); (6) a substantial proportion of health promotion researchers are trained in psychology, a discipline that traditionally focuses on cognitive processes as a cornerstone of individual-level change; and (7) the accumulating empirical evidence suggests that theory-based, individual-level approaches to changing health behaviors can be effective. Given the popularity of this approach and the wealth of associated theories, researchers have continued the quest to develop and improve individual-level behavioral theories.

Many well-established individual-level theories have been refined, and others have been newly created, based largely on the lessons learned from application of

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the established theories. At the same time, researchers have questioned the wisdom of relying exclusively on individual-level approaches to achieve substantive changes in health behavior and sustain these changes over time in the face of countervailing social

influences and pressures (McLeroy, Bibeau, Steckler, & Glanz, 1988; Ruten, 1995; Salis & Owen, 1997; Smedley & Syme, 2000).

One sequel to individual-level approaches is delivering interventions at the community level. For example, substantial resources have been allocated to conduct community-level intervention trials designed to reduce coronary vascular disease by influencing community members to adopt protective behaviors; examples are the Stanford Five-City Project (Farquhar et al., 1990; Fortmann et al., 1995), the Pawtucket Heart Health Program (Carleton et al., 1995), and the Minnesota Heart Health Program (Luepker et al., 1994). A similar large-scale demonstration program designed to prevent tobacco use (the Community Intervention Trial for Smoking Cessation) was also delivered at the community level (COMMIT Research Group, 1995). Although one clear advantage of this approach is that interventions reach large numbers of the target community, it is important to note that community-level approaches are often targeting the individual as the primary agent of behavior change; thus, individual-level theories may still be the predominant paradigm, despite application to greater numbers of people.

An important advantage of delivering programs at the community level is that reaching such a large proportion of the community may result in a change of community norms, which themselves may prompt continued diffusion of health-protective attitudes, beliefs, and behaviors (Farquhar, 1978; Rogers, 1983). However, community-level approaches may become particularly effective when



they depart from sole reliance on individual-level theory and subsequently adopt theories that address social, cultural, economic, environmental, and policy-related influences on the health behavior of community members. Because of this vastly expanded paradigm, theories that transcend the individual level have been much more difficult to develop, refine, operationalize, and evaluate. Yet they hold great potential to promote and support health behavior change and the long-term maintenance necessary to achieve reductions in morbidity and mortality (McLeroy, Bibeau, Steckler, & Glanz, 1988; Rutten, 1995; Salis & Owen, 1997; Smedley & Syme, 2000).

The trajectory of theory, then, can be viewed as moving from a paradigm that places emphasis on the individual as the primary agent of change to a paradigm that conceptualizes the individual as enmeshed in a complex system of influences that ultimately shape health behavior. It is important to note that the latter paradigm embodies the former, in that individual-level theories are conceived as being an integral part of the larger theoretical approach. This observation clearly implies that theories may be used in a complementary form, therefore suggesting the utility of creating new theory that represents potentially effective combinations of established theory. It should also be noted that some theories essentially shift the entire intervention emphasis to the latter paradigm and exclude efforts based on individual-level theory. These theories typically seek to change policy- and social-level determinants of health. Although the obstacles to achieving these changes are often formidable, the potential for influencing large numbers of people is substantial (Salis & Owen, 1997). Examples of this type of approach include policy-level harm-reduction interventions designed to make clean needles and syringes readily accessible to injection drug users (Des Jarlais, Guydish, Friedman, & Hagan, 2000), condom distribution programs (Guttmacher et al., 1997), and many aspects of the tobacco settlement agreement, such as restrictions in advertising and sales and increases in cigarette taxes (Warner, 2000). Similarly, increasing the age for buying alcohol and lowering the blood-level concentration of alcohol that is considered unlawful when driving are policy-level approaches to achieving public health goals.

This brief description of a trajectory of theory development suggests that the range of theories available to behavioral and social scientists is rapidly expanding. We view this expansion as a positive development in health promotion. Indeed, increasing the range of theories (that is, tools to use) can lead to better theory selection. In turn, improved selection can optimize the ability of any program to identify antecedents of a given health risk behavior and subsequently create efficacious intervention programs that promote protective behavior. Every level of theory has utility. For example, although policy-level interventions may be the most effective approach for promoting the use of clean needles and

syringes, the initial determination of reasons that injection drug users reuse their "works" may best be guided by investigations based on individual-level and interpersonal-level theories. Individual-level and interpersonal-level theories are also primary tools for intervention venues such as public schools and clinical settings. Yet in venues that include entire communities, the use of broader-level theories may be preferable to achieving long-term change in health behaviors. In essence, the range of behavioral and social science theories available for both health promotion practice and research affords the practitioner and researcher an opportunity to select the theory that is most appropriate, feasible, and practical for their setting or population.

This book is devoted to describing emerging theories across the continuum of levels of causation. Although it is not an exhaustive review of emerging theories, we believe it represents a well-rounded picture of new thinking and new applications of theory for health promotion practice and research.

## A Brief Overview of Emerging Theories

This book is intended to provide researchers, practitioners, and students with an in-depth understanding of selected emerging theories in public health. To facilitate our communication, the term *theory* is used to represent an interrelated set of

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propositions that serve to explain health behaviors or provide a systematic method of guiding health promotion practice. An excellent related book, *Health Behavior and Health Education: Theory, Research, and Practice* (Glanz et al., 1997), described behavioral theories commonly

appearing in the health promotion literature. Adding to the work of Glanz and her colleagues, this book describes theories that have recently evolved from the iterative process of research, practice, and evaluation. Many of the theories described are in the early phases of empirical testing within the realm of public health applications.

In Chapter Two, Neil Weinstein and Peter Sandman describe the Precaution Adoption Process Model and its potential applications to health promotion practice. Although this model and the Transtheoretical Model (Prochaska, Norcross, & DiClemente, 1994) share much in common (particularly a stage approach to understanding and promoting long-term behavior change), the Precaution Adoption Process Model differentiates between individuals who are unaware of a given health threat, do not perceive themselves as personally susceptible to the given threat, and are deciding whether to adopt recommended protective behaviors. Progression from stage to stage and the stage of deciding not to act are also

distinct features of the model. Supporting data from applications to home radon testing and mammography use are provided.

Just as Weinstein and Sandman provide a theory that adds to the Trans-theoretical Model, Jeff Fisher and William Fisher describe in Chapter Three the Information-Motivation-Behavioral Skills Model, a theoretical model that parsimoniously extends elements of the Health Belief Model, the Theory of Reasoned Action, and the Theory of Planned Behavior. Previously applied to understanding HIV and sexually transmitted disease risk behavior, this model has considerable potential for effective applications across a spectrum of health behaviors. One particularly eloquent aspect of it is its ability to explain primarily volitional health behaviors, such as vaccination, and medication adherence, as well as the health behaviors that may be constrained by an individual's social or relational environment, such as condom use among young women. Improved understanding of health behaviors gained through the use of this model may potentially lead to improved intervention strategies.

In Chapter Four, Richard Petty, Jamie Barden, and Christian Wheeler explain how the Elaboration Likelihood Model of persuasion can be an important contribution to the discipline of public health. The purpose of this model is to provide a framework for understanding attitude formation and subsequently facilitating attitude change. Although the model has a rich history in the field of psychology, its application to health promotion is newly emerging. Detailed explanations of central route and peripheral route cognitive processing are provided; these dual routes of persuasion are important to health promotion practice because they can guide widespread health communication efforts. The Elaboration Likelihood Model could also inform the design and content of small-group health promotion curricula. The role of peripheral and central route cognitive processing in achieving short-term and sustained behavior change, respectively, is described in detail. The authors provide multiple examples that collectively support the potential of the model to make a significant contribution to health promotion practice.

In Chapter Five, Bruce Simons-Morton and Jessica Hartos apply theoretical work on authoritative parenting to adolescents' health behavior. They begin with an overview of authoritative parenting style and summarize research linking parenting styles to child and adolescent outcomes. They then present a model for applying authoritative parenting to interventions, conceptualizing authoritative parenting in terms of goals, style, and practices. The implications of the model for health promotion are illustrated through an innovative program designed to increase the safety of teenage drivers through application of authoritative parenting principles.

Several emerging theories address health behavior from the perspective of community-organizing and community-building activities. For example, in

Chapter Six, Eugenia Eng and Edith Parker describe natural helper models and their significance to health promotion practice. They provide a context for understanding how to identify natural helpers and how they can facilitate a host of positive health outcomes. Natural helpers serve as agents who complement the existing services of health professionals. Although a major target of natural helping is individual-level behavior change, the process of helping is described as being intertwined with factors such as community political dynamics and neighborhood attachments. The authors offer a model that illustrates how various functions that natural helpers serve can lead to improved health practices, improved coordination of agency services, and improved community competence. A nutrition and health project, conducted in rural Mississippi, is described to demonstrate how the natural helper intervention model has been successfully applied.

Another common approach to community-based health promotion is the use of community coalitions, which are popular vehicles for bringing diverse organizations and individuals together to address public health problems, but they have been considered largely atheoretical until now. In Chapter Seven, Frances Butterfoss and Michelle Kegler introduce the Community Coalition Action Theory. They integrate what has been learned about coalitions over the past decade through both research and practice and develop a series of practice-proven propositions to explain coalition development and effectiveness. These propositions form the basis of the theory, which emphasizes stages of coalition development, coalition functioning, development of coalition synergy, and creation of community changes that lead to increased community capacity and improved health and social outcomes. The authors illustrate the concepts and propositions with examples from a coalition formed to increase childhood immunizations.

In Chapter Eight, Barbara Norton, Ken McLeroy, James Burdine, Michael Felix, and Alicia Dorsey thoughtfully present contemporary perspectives on community capacity. This ecological approach to health promotion emphasizes relationships that exist within communities and the presence of community factors that may facilitate community mobilization. Community capacity is viewed as both an input and an outcome in the process of developing healthy communities. A series of contrasting theoretical perspectives relevant to community capacity is presented, followed by an in-depth examination of important dimensions that contribute to community capacity. Subsequently, the authors supply a descriptive case study of community capacity development in Hartford, Connecticut. The chapter concludes with a discussion of issues regarding further refinements in the approach to developing and measuring community capacity.

In Chapter Nine, Marshall Kreuter and Nicole Lezin discuss social capital and its implications for community-based health promotion. They review theoretical

and empirical contributions to our understanding of social capital and suggest that collective actions through collaboration are mediated by trust, reciprocity, and cooperation. A significant contribution of this chapter is the conceptual framework for understanding two levels of social capital, bonding and bridging, within the context of community-based health initiatives. The chapter also includes illustrations from a study designed to assess the validity of various measures of social capital.

Many of the emerging theories contained in this book embody a multidisciplinary approach to understanding and potentially intervening on health behaviors. For example, in Chapter Ten, May Kennedy and Richard Crosby provide a detailed account of the Prevention Marketing Initiative, an approach to health promotion originally conceived by the Centers for Disease Control and Prevention. The initiative integrates three distinct fields of research: behavioral science, social marketing, and community development. Although applying these fields to health promotion practice is not new, the initiative is the first empirically validated approach to use these three fields synergistically for a health promotion program. Because the Prevention Marketing Initiative relies heavily on community involvement, program sustainability is relatively high. Furthermore, the use of social marketing makes theory-based intervention components accessible to large communities. As an applied example, the authors describe the development and content of an HIV-prevention program developed for youth. While acknowledging the current limitations of this emerging framework, the authors note the vast potential of the Prevention Marketing Initiative to contribute to public health practice.

Although the Prevention Marketing Initiative stipulates that changes in a person's environment are needed to achieve lasting improvements in health behavior, the remaining chapters in this book describe theories that provide a much stronger emphasis on environmental changes. For example, in Chapter Eleven, Stevan Hobfoll and Jeremiah Schumm make a significant contribution through their description of Conservation of Resources Theory, which contains a number of propositions that can be useful for understanding and promoting health behaviors. This theory addresses aspects of the objective and perceived environment in relationship to stress and coping. Loss spirals and resource gains are central propositions in the theory; each is associated with personal and environmental resources. The relative importance of protecting from resource loss is emphasized. Conservation of Resources Theory holds that behavior change is resource driven and that resources are interrelated. The authors illustrate applications of this theory to the adoption of HIV-protective behaviors among low-income urban women and to addressing traumatic stress issues such as posttraumatic stress disorder. They also provide a rationale for integrating the theory with a number of other emerging theories described in this book.



Yet another example of an emerging theory that emphasizes key aspects of the environment (in this case, the sociocultural environment) is the Theory of Gender and Power. In Chapter Twelve, Gina Wingood and Ralph DiClemente explain how this theory can be effectively applied to health promotion practice. The theory considers the relationship of sexual inequality and power imbalance to women's health-risk and health-protective behaviors. As such, this theory plays a unique role in health promotion practice because of its applicability to women worldwide. Three structures are hypothesized to influence health behaviors: sexual division of labor, sexual division of power, and the structure of cathexis (the affective component of relationships between men and women). These structures are described at the societal and institutional level. The authors provide illustrations of the theory as applied to women's health issues, particularly sexual risk behavior.

The final emerging theory described in this book emphasizes the role of environmental change in health promotion. In Chapter Thirteen, Melbourne Hovell, Dennis Wahlgren, and Christine Gehrman set out an in-depth description of principles and applications of the Behavioral Ecological Model, which provides a distinct contrast to models that emphasize the role of cognitive mediators of health behavior and self-regulation of these behaviors. The model emphasizes the importance of environmental metacontingencies that can influence behavior change at a population level. Although these authors acknowledge that intervention strategies guided by the model can be logistically complex, they provide substantial evidence supporting the value of this approach in reducing the prevalence of tobacco use and promoting physical activity. This chapter will challenge many readers to think in a different paradigm—one that is based on the psychological tradition of behaviorism and views behavior as rule governed. The model also provides an important rationale for understanding mechanisms that could contribute to sustained behavior change.

The book closes with a chapter that reflects on the utility and application of theory in health promotion practice. It presents issues related to development and testing of emerging theories and concludes by identifying areas of inquiry that may be helpful in the advancement of emerging theories as applied to the evolving nature of health promotion practice. Readers are encouraged to evaluate each of the emerging theoretical frameworks presented and select those that may best apply to their own needs in health promotion practice. Subsequent application and testing of these theories will clearly advance the potential of our discipline to have a positive impact on public health issues.

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## Application Issues Relevant to Emerging Theories

Theories can be useful to researchers and practitioners by providing insights into the factors that influence behavior. By applying a particular theoretical framework, we can understand the genesis of long-term adoption of health-related behaviors among members of a given population. When this process begins with the goal of understanding a problem or behavior from various perspectives, it is sometimes referred to as the theory of the problem (Burdine & McLeroy, 1992). Regardless of the goal, the application of theory in health promotion is widely accepted as an important practice. As new theories emerge, one important question becomes whether new application issues will arise. We anticipate several.

One important application issue centers on measurement. A central challenge to the researcher or practitioner who applies emerging theory to health promotion practice is identifying and operationalizing the theory constructs. Clearly, measurement is inextricably linked to the operationalization and use of theory. Thus, the development of reliable and valid assessment measures designed to capture the desired theoretical constructs can be viewed as an important step in the use of the emerging theories described in this book. In addition, the availability of these measures can greatly facilitate the correct application of emerging theories. In turn, this fidelity to the intended application of theory sets the stage for more meaningful evaluation strategies that can subsequently inform researchers about the strengths and weaknesses of any given set of theoretical propositions. The eventual adoption of emerging theory by researchers and practitioners may be a function of how easily the theory can be understood and applied. This is not to say that implementation should necessarily be an easy process; health promotion practice is often a long, protracted, and labor-intensive process. Rather, the theory and the specific details for its application should be intuitively clear to provide practitioners and researchers with the vision necessary to plan and implement the desired theory-driven program.

Another important application issue involves the influence of cultural differences among people within the United States and the ability to apply these emerging theories in cultures outside the United States. For example the Theory of Gender and Power (see Chapter Twelve) posits that redressing inequalities between men and women can be an important strategy for promoting women's health. In highly paternalistic cultures and societies, interventions based on this theory may be difficult to implement or may not be feasible. Yet without addressing the broader entrenched societal norms that disenfranchise women and create power imbalances that favor men, it would be difficult to improve women's health sta-



tus. Thus, understanding the cultural contexts and nuances allows practitioners and researchers to determine how best to translate and adapt a theory for their particular set of cultural constraints, thus maximizing the potential for achieving desired changes.

It is important to obtain empirical evidence of a theory's cross-cultural utility before proceeding with program design and implementation. Theories can and should be modified to be suitable for a particular cultural context (Airhihenbuwa, DiClemente, Wingood, & Lowe, 1992; Burdine & McLeroy, 1992). For instance, some constructs may differ in their meaning across cultures, and some cultures may not possess a particular theoretical construct. It is therefore important to determine the cultural equivalence and relevance of constructs across groups (Berry, 1996). Thus, theories should not constrain interventions through standardized application; rather, they should provide a foundation on which particular cultural elements and social-environmental constructs can be examined in a specific sociocultural context and appropriately integrated into the theoretical framework. It is this broad definition of theory, one that is capable of being tailored for different contexts, that is most appropriate for designing health promotion interventions.

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## Conclusion

Using broader-based contextual theories to understand and promote public health requires specification of a range of exposures and risk factors, a multilevel approach to intervention and prevention, and a broader conceptualization of the diversity and types of environmental and social contextual influences that could adversely or positively affect health. Employing these emerging theories marshals new kinds of data, asks new and broader questions regarding the factors that influence health, and creates new options for prevention.

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