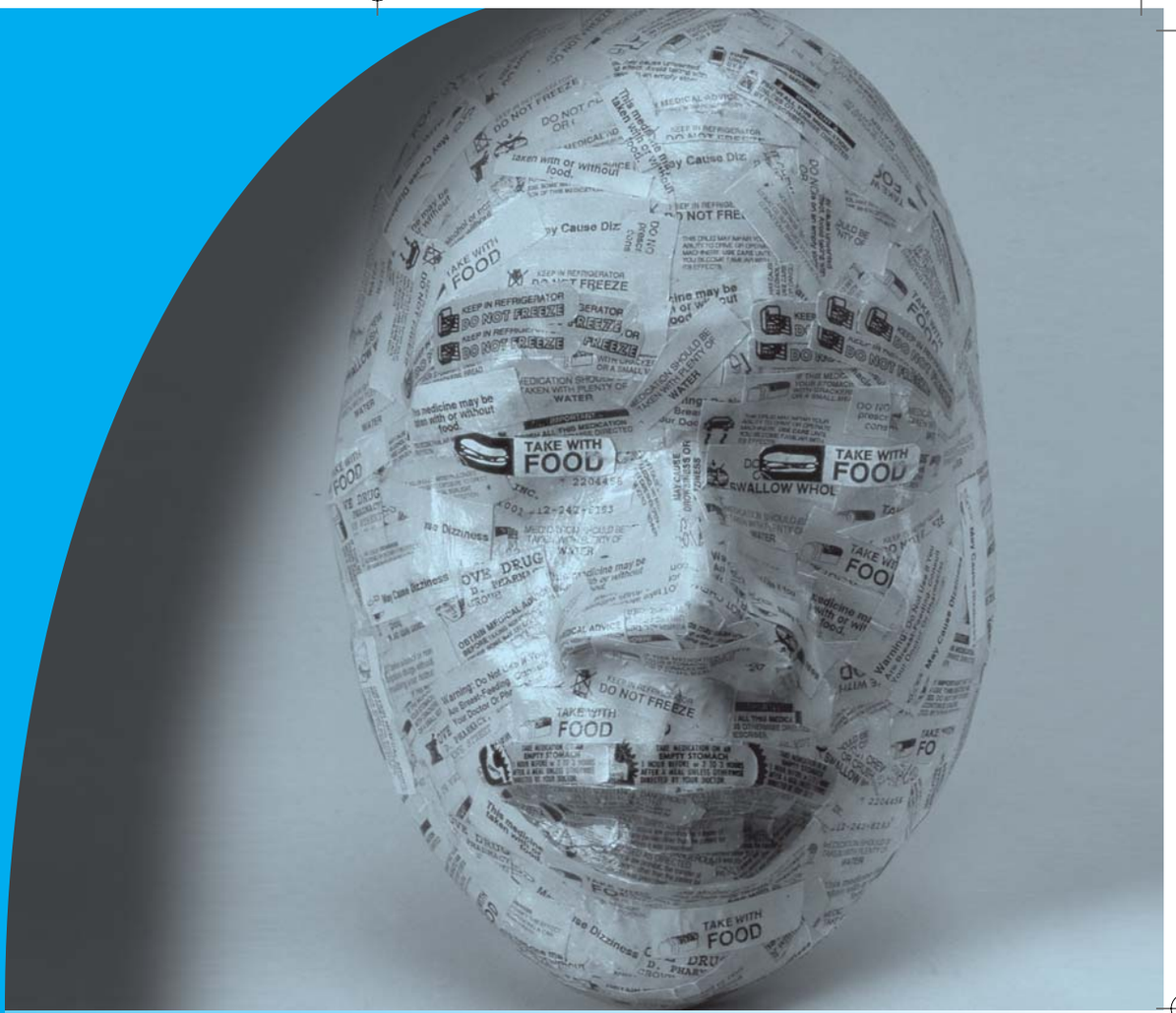

SECTION III

Being Persuasive: Influencing People to Adopt Healthy Behavior

CHAPTER 8

Persuasive Health Communications: The Role of Theory

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LEARNING OBJECTIVES

By the end of this chapter, the reader will be able to:

- Understand the practicality of a good theory.
- Frame a fact for persuasive purposes.
- Grasp the fundamentals of social marketing.
- Describe the key theories of behavior change used most commonly in public health communication.

INTRODUCTION

Kurt Lewin* famously said, "There is nothing so practical as a good theory." His statement, so often attributed to other scientists, certainly reflects the essence of behavior change communication. Ed Maibach once called **self-efficacy** the "penicillin of the '90s,"[1] referring to how virtually every health intervention included this construct from Social Cognitive Theory. This chapter introduces the tools that every health communicator needs in his or her tool kit. If the Health Belief Model is a hammer, then the Transtheoretical and Precaution Adoption Process models are wrenches, Social Cognitive Theory is a screwdriver set, the Integrative Model is a Swiss Army knife, and Diffusion of Innovations is duct tape. Most behavior change interventions use one or more of these theories. While they might seem a bit frightening at first, with practice, you will become as adept with them as you are with a screwdriver. As with tools, if you choose the wrong one your task become more difficult, like pounding nails with a wrench. In this and the following chapter, we help you select the right tool for the job by discussing each of the theories and showing you how to apply them appropriately in different health communication interventions.

We have already presented a few important theories that dealt directly with "informing" audiences. In Chapter 7 we introduced information processing theory as what we have learned about how people take in information, organize it mentally, and make sense of it. We also discussed the Elaboration Likelihood Model, which predicts that an individual will "elaborate," or think about new information more, if they are already concerned about or interested in the subject. If not, then other symbolic references valued by the intended user, such as spokespersons, models, settings, colors, language, are used to capture attention. These often cultural references are called **peripheral cues**, because they do not deal directly with the subject matter (which might, e.g., be smoking cessation or STD prevention), but more call out to the intended user—"Hey, look at me. I'm speaking to YOU." In addition to a person's health literacy and basic reading ability, these concepts guide how health communicators prepare information that is meant to "inform a decision." We use primarily "educational" approaches to present information that is clear, simple, and relevant to our intended user.

THEORIES OF PERSUASION

In this chapter we move on to the idea of **Persuasion Theory**. If a Precede–Proceed analysis of a problem in the ecological

Kurt Lewin (1890–1947) is considered by many to be the father of modern social psychology. He was early in emphasizing the importance of the environment together with personal characteristics, in causing behavior. Another relevant and famous quote, "If you want truly to understand something, try to change it."

framework in Chapter 2 leads us to conclude that health will be improved only if a change takes place, then we need to convince people to make that change. Using Rothschild's model[2] we need to determine how difficult and costly the change might be for those being asked to make it. Will we be trying to get a group of people to change a habit they view as an inalienable right, as throwing trash out of moving vehicles was viewed in the 1960s? Are we working with someone who is addicted to a substance, such as tobacco, but *wants* to stop using it? Are we trying to make people aware of a problem they don't even know they have, such as mothers in developing countries who are unaware that vitamins and minerals are necessary in their children's diets? Or, are we trying to motivate people to adopt a behavior that they know *is* beneficial, but for so many reasons, personal and external, is difficult to embrace? Examples include eating more fruits and vegetables, getting more exercise, practicing safe sex with a partner, etc. In most of these cases, information alone is not sufficient for people to change their behavior. They also need to feel that the change is important to them personally, that they have the ability to do it, that their loved ones and friends support it, and perhaps that they are part of a group making this change. They will probably need to make the change in small steps, think about it before they try it, and slide back a few times before they are able to maintain the change indefinitely. Most of all, they need to feel that the indirect rewards for making the change (e.g., peer approval, love, merit badges) or its direct benefits (e.g., appearance, energy levels, child health) outweigh the costs.

These needs represent **theoretical constructs**, with technical names that will be provided later. *Constructs* are pieces of a theory that can stand alone, much like atomic elements, but are most effective when used in combination with the other elements (or constructs) of a theory—for example, drinking water versus hydrogen or oxygen. Many of these theories come from the field of psychology and have been used successfully to persuade individuals to adopt healthier lifestyles. The overall framework for bringing these theories into public, or population level health, is social marketing. Social marketing is not a theory but a systematic approach to developing health interventions that have the best chance of being adopted by the intended users. Its processes are integrated into most other health communication or promotion efforts, although many practitioners may be unaware of marketing's place in what they believe to be health education campaigns, for example.

Before discussing social marketing and behavior change theories, we will review framing, first discussed in Chapter 6. There we described the selection and shaping of data for presentation to policymakers as well as for advocacy. Now we focus on framing messages for persuasive communication to change individual behavior.

MESSAGE FRAMING AS A PERSUASIVE COMMUNICATION TECHNIQUE*

Framing a message is giving it a context or even suggesting a point of view or an interpretation with which it is to be understood (also see Framing, Chapter 6). Whether consciously, or unconsciously, even as we speak, we "frame" information to make it more interesting, more palatable, or more frightening for our audience. The frame itself has been demonstrated to have a direct impact on how someone hears, processes, and acts on information. As such, it is an important technique for persuasive health communication, in addition to advocacy and politics.

In Chapter 6 we described "framing bias" in a negative light, as something that can be done to manipulate the reader's perception of the same numbers. For example, if we say that 1 in 20 people "die," many people think the death rate is worse than if we said 19 out of 20 people "survive." In persuasion theory, we can use our natural (though mistaken) tendencies to hear information this way to our benefit through "gain and loss" frames. **Gain-framed** appeals state the advantages of taking an action (e.g., you are 20% more likely to win if you buy four lottery tickets). **Loss-framed** appeals state the disadvantages of not taking an action (e.g., you are 80% more likely to lose if you don't buy four lottery tickets). Some research suggests that gain-framed appeals are more effective for promoting prevention behaviors for health maintenance, such as wearing sunscreen to prevent skin cancer. Loss-framed appeals seem more effective to promote detection behaviors for illness, such as performing breast self-exams to detect lumps.[3] An example of this conclusion comes from Rothman and colleagues[4] in which messages about using mouth rinse were tested among college students. See **Table 8–1**. As predicted by their hypothesis, the gain-framed appeal worked best in the prevention group, and the loss-framed appeal worked best in the detection group.

Other research has been less conclusive. Rothman and colleagues[3] note that one problem is that individuals define the behavior being "framed" differently. For example, some people might think HIV testing is a detection behavior, while others see it as a prevention behavior (i.e., preventing HIV transmission to a partner). Individuals also differ in the level of risk they attribute to performing a particular behavior and risk perception mod-

*Special thanks to Shawnika J. Hull, ABD, PhD, for her help with the discussion on message framing in this chapter. At the time of this writing, Dr. Hull was working on her dissertation at the University of Pennsylvania's Annenberg School for Communication.

TABLE 8–1 Examples of Gain and Loss Frames for Plaque-Fighting Mouth Rinse

	Gain-Frame	Loss-Frame
Prevention behavior (plaque-fighting mouth rinse)	"People who use a mouth rinse daily are taking advantage of a safe and effective way to reduce plaque accumulation."	"People who do not use a mouth rinse daily are failing to take advantage of a safe and effective way to reduce plaque accumulation."
Detection behavior (disclosing—or plaque detecting—mouth rinse)	"Using a disclosing rinse before brushing enhances your ability to detect areas of plaque accumulation."	"Failing to use a disclosing rinse before brushing limits your ability to detect areas of plaque accumulation."

Source: Rothman AJ, Martino SC, Bedell BT, Detweiler JB, Salovey P. The systematic influence of gain- and loss-framed messages on interest in and use of different types of health behavior. *Pers Soc Psychol Bull.* 1999;25(11): 1355–1369., p. 1361.

erates the impact of framed appeals.[5] This issue has generated a lot of controversy and you cannot apply gain and loss framing by a simple formula. Your framing should be tested during the formative research phase with target audiences to determine the most effective frame for a particular audience and behavior.

SOCIAL MARKETING

The concept of **social marketing** was introduced in Chapter 2. One definition, based on an article by Lefebvre and Flora is, "The design, implementation, and control of programs aimed at increasing the acceptability of a social idea, [or] practice [or product] in one or more groups of target adopters. The process actively involves the target population who voluntarily exchange their time and attention for help in meeting their needs as they perceive them."[6] The idea of social marketing is generally attributed to the psychologist, G.D. Wiebe, who is famously quoted as asking, "Can brotherhood be sold like soap?"[7] He suggested that the public would be likely to adopt a socially beneficial idea to the extent its promoters used commercial marketing practices. Later, Kotler and colleagues,[8] including Michael Rothschild,[9] Bill Novelli,[10] and Alan Andreasen,[11] applied marketing principles to a range of social issues and products. They found that as an offering becomes more tangible (i.e., the more it was actually like "soap"), the more the full dimensions of marketing (which include **p**rice, **p**lacement, and **p**roduct attributes) became relevant and concretely defined. In this case, communication is redefined as the fourth P (for **p**romotion) and is used to make consumers aware of a product and its benefits. But when offerings are less tangible—such as "brotherhood," or "reduce, reuse, recycle"—social marketing reduces to behavior change communication. There are numerous social marketing examples, including the "Friends don't let friends drive drunk" campaign, recycling and other green product ventures, and most of the subsidized health products marketed in developing countries (e.g., oral rehydration salts, contraceptives, insecticide-treated bed nets).

Social marketing is not considered a theory itself but there are theories that underpin social marketing. A few of these, such as exchange theory and rational decision making, come from the field of economics while most are derived from social psychology. More so than theory, it is the systematic, consumer data–driven approach of social marketing that has been so widely adopted in many health promotion efforts without ever calling the effort social marketing. Several critical components of social marketing are *market* (or audience) *segmentation*, *targeting*, *barriers* (or obstacles), *benefits*, and *competition*, as well as the *doer versus non-doer* comparative analysis.

Audience Segmentation

Segmentation is dividing something large into smaller pieces, such as an orange broken into slices. While we would like to help everyone who is affected by a particular health problem by providing "everyone" with the same prevention information, a one-size-fits-all approach works no better in public health than it does for clothing. We will be more effective if we can *reach* and speak to a particular group of people who are likely to be *interested* in what we have to say. As mentioned in our discussion of the Elaboration Likelihood Model, we can attract the interest of specific audience members by focusing on a topic in which they have already expressed interest, or by using demographic, cultural, media choice, place-based, or other references which they find meaningful. If we are going to be this precise in our communication, we need to focus our efforts on a fairly small group of people—referred to as

our "target market" or "target audience." Thus, **audience segmentation** is a data-based method of identifying smaller target groups of people who share some relevant characteristics.

In an early article Slater,[12] cites Smith[13] as having developed the concept of segmentation for marketing products. Slater summarizes his contribution saying,

> Smith pointed out that marketers typically increased market share by product differentiation—attempting to increase demand by creating a supply of a product unique in some respect. Smith advocated, instead, market segmentation—identifying promising subgroups of consumers, learning what their needs and desires were, and developing products tailored to those subgroups.[12]

Slater goes on to describe nesting segmentation strategies from the broadest base of demographic and geodemographic variables to very specific antecedents of health or risk behaviors. He notes that few programs have the resources to pursue every unique audience segment directly.[12]

Many health communication segmentation strategies are limited by budget. As a result, **partner-based segmentation**—that is, working through intermediary groups who have the desired target audience in their constituency—is commonly used to simplify logistics and reduce cost. For the same reasons, **channel segmentation**, based on personal media preferences, is extremely popular. Since the expansion of the Internet, the potential for channel segmentation has increased dramatically. (In Chapter 10, we will discuss what is now an economic possibility: *message tailoring*, segmentation to an audience of one.)

For maximum impact, most programs use behavioral readiness, or other psychosocial indicators, to create segments. These will be described later in the Change Theories section.

The private sector subscribes to large marketing databases that divide up the U.S. public into very fine segments based on shopping, media choices, census tracts, and other data that are collected (increasingly without our knowledge) every time we use a credit card, place a phone call, or go online, let alone through direct surveys. Some of these, such as the Claritas Prizm system offered by Nielson[14] or Dunn & Bradstreet's (D&B's) database of small businesses, are used by federal agencies in their public health communications efforts.

As a result, local health departments can sometimes work through government agencies to access some of these tools for market segmentation and analysis that might otherwise have been prohibitively expensive. It is difficult to predict if these intense consumer marketing database systems will still be relevant in the post-Internet world. Compared to even a decade ago, the internet provides better tools than local radio, direct mail, and phone calls (who likes *those*?!) to reach fine-grained, widely dispersed audience segments and at much lower cost.

Targeting

We have learned that **targeting** means focusing on one small group of people within a larger population that has critical features in common. The name is a bit unfortunate, because it does come from aiming at a target and firing. But, the idea is that if you aim at a bull's-eye on a target, and you come relatively close, it is better than just shooting randomly in the air. The metaphor works for aiming health communication interventions at a specific group of people. The people who are closest to this group will also likely be affected through word of mouth, or because they feel the information is also meant for them. In target marketing overage extends well beyond the specific targeted segment.

Targeting is just a shorthand way of saying that you are using demographic, cultural, or other factors in your communication strategy to reach specific audiences. Until relatively recently, the term *tailoring* was used for this approach. However, we reserve **tailoring** to refer to communications that are directed to an individual based on individually-collected information. These may be mass distributed, but they should still reflect individual interests and do not make the assumption that "birds of a feather flock together," as targeting approaches tend to do. (See Chapter 10 for more on tailoring.)

Benefits, Barriers, and Competition

An absolutely key contribution from marketing to the health communication field is the central position of the consumer's perspective of a product or service. An old advertising slogan coached salesmen to "Sell the sizzle, not the steak." Rarely do you see a hunk of raw meat used to promote a restaurant. Instead, you see meat sputtering over a grill. This strategy is used because a product's **attributes**, which are created by the manufacturer, are not equivalent to the benefits of the product as perceived by the consumer. So toothpaste marketers do not promote the chemical compounds making up their toothpastes' minty flavors, they promote the benefits of fresh breath directly and sex appeal indirectly. Soap, made of some combination of oils, surfactants, and perfume, is marketed as a product makes your skin soft and smooth, makes you smell nice and, yes, gives you more sex appeal.* It is the **benefits** of a product, service, or idea (not the chemical composition) that

*The more high tech a product is, the more it tends to actually speak about its attributes directly. The target market is often "nerdy" enough to like this and make consumer decisions on this basis. Automobiles are at the beginning of this list, as well as automotive supplies.

must outweigh the barriers to the product's use, or compete with something else being used in its place. The private sector has learned to ask the consumer about what he or she wants or likes in a product and public health communicators need to do the same.

Most **barriers**, like benefits, are in the mind of the consumer. The economic concept of price elasticity of demand (PED)[15] makes the point that barriers are not universal, nor are they necessarily stable for an individual. Cost is often seen as the most important barrier to acquisition of a product. But in fact, if consumers value a product sufficiently, they will pay just about any price for it. It is a little counterintuitive, but high price elasticity suggests that when the price of a good goes up, consumers buy less of it and when the price goes down, consumers will buy more. Low price elasticity implies that changes in price have little influence on product demand. It is beginning to appear that cigarettes have a relatively low price elasticity, whereas green vegetables and fruit have a higher one. The strategy of increasing tax surcharges on tobacco products did reduce adult smoking, but now seems to have less impact on younger smokers. On the other hand, the principle barriers to consumption of fruits and vegetables seem to be availability and price across many population segments. Many public health practitioners blame the obesity epidemic, in part, on the high price elasticity of fast food—with people consuming much more of it at cheaper prices.

Cost is far from the only barrier affecting an adoption of a health behavior. In many cases, the largest barriers are psychological, including pre-existing attitudes and perceived social norms (see the Integrative Model discussed later). For young people in particular, the idea of what their friends will think, or what they believe their friends are doing, is essential to a behavior change. Health communicators need to find and promote perceived benefits to offset the many perceived barriers to even an obvious health choice.

Finally, **competition** refers to what the intended user is doing now, or using now, instead of the behavior or product being promoted to improve their health. Sometimes this is just using brand *X* instead of brand *Y*. But, sometimes competition is using a rock instead of a hammer, our teeth instead of scissors, or sugary soda in place of low fat milk. What we have learned from marketing is that competing products or services may come from completely different domains. We might not be able to imagine that they compete with the healthy idea we are proposing to a target audience. This substitution of products or services from different domains is particularly important when introducing health concepts in developing countries. The habitual or preferential use of supernatural or ineffective natural products in place of contraceptives, vitamins, immunizations, etc. has to be considered respectfully in every health communication strategy.

Doer versus Non-Doer Analysis

How do you find out what consumers need, what products they think are beneficial, or what prevents them from acting? And, how do you group consumers in a meaningful way? The simplest way is you ask those who are already using the desired product or performing the desired behavior about their choice. You also interview individuals who are not using the product, substituting something else for it, or doing nothing instead of the desired behavior. This is a **doer versus non-doer analysis**. This will be discussed more extensively in Chapter 9. You cannot do this kind of research if no one has adopted the healthy behavior. But it is very rare, even in the most unsupportive environment, that a few people have not found a way to live healthy lives on their own. The anthropological concept behind this marketing term is **positive deviance**.[16] An entire international health approach has grown up around identifying healthy individuals (or parents with healthy children) and finding out what they are doing *right*. The health communication strategy is then based on disseminating these healthy, and presumably (but not always) environmentally consistent, culturally appropriate behaviors to the larger population.

The fields of marketing and social marketing are large and their literature extensive.[17] The elements described have been selected because they are essential to health communication planning and cannot be overlooked, whether one is taking part in patient–provider communication, health education, or social mobilization. We will now delve deeper into what motivates individuals and groups to change behavior.

CHANGE THEORIES[18]*

Now we will look at some of the most commonly used behavior change theories in public health communication.† Behavior change theories are concerned with determining the predictors of behavior. These predictors are often made up of psychosocial constructs such as attitudes, beliefs, personal characteristics, and social and environmental factors.

*There is nothing that can beat the National Cancer Institute's (NCI's) Theory at a Glance for providing short, clear explanations of behavioral change theories. Most of the material in this section is drawn from this free resource, including all the figures in this section.

†See Edberg M. *Essentials of Health Behavior. Social and Behavioral Theory in Public Health*, Sudbury, MA: Jones & Bartlett; 2007. We will provide only a cursory overview.

Health Belief Model

The **Health Belief Model** (**HBM**) was one of the first in the field of public health to explain individual health behaviors, particularly individual decisions to participate in public health services such as free tuberculosis screening programs.[19,20] In the HBM, several sets of beliefs either motivate or discourage people to take on certain health behaviors:

- *Perceived susceptibility:* Your sense of personal risk for a health condition.
- *Perceived severity:* Your belief about how serious this condition is.
- *Perceived benefits of interventions:* Your perception of the effectiveness of taking action.
- *Perceived barriers or costs of interventions:* Your perception of the monetary, physical, or psychosocial costs to perform a behavior.
- *Cues to activate behavior change:* Specific messages or indicators that might prompt you to take action.
- *Self-efficacy to perform the behavior:* Your confidence about performing this specific action.

The HBM fell out of favor for a couple of decades, particularly when developing interventions for adolescents and young adults, who generally feel invulnerable to risk. However, the HBM appears to be coming into wide use again, particularly in developing interventions for older Americans. **Box 8–1** provides an example of HBM applied to colorectal cancer screening.[21]

Box 8–1 Example of HBM Applied to Colorectal Cancer Screening

The American Cancer Society[21] recommends that beginning at age 50, both men and women at *average risk* for developing colorectal cancer should use one of several recommended screening tests. The tests that are designed to find both early cancer and polyps are preferred if these tests are available to you and you are willing to have one of these more invasive tests.

Tests that find polyps and cancer

- Flexible sigmoidoscopy every 5 years.[a]
- Colonoscopy every 10 years.
- Double contrast barium enema every 5 years.[a]
- CT colonography (virtual colonoscopy) every 5 years.[a]

Tests that mainly find cancer

- Fecal occult blood test (FOBT) every year.[a,b]
- Fecal immunochemical test (FIT) every year.[a,b]
- Stool DNA test (sDNA), interval uncertain.[a]

Set of hypothetical factors from HBM that may influence a decision to have a colonoscopy to screen for colorectal cancer[c]

- *Perceived susceptibility:* Personal risk for developing cancer; particular concerns about colorectal cancer, or any cancer, based on family history.
- *Perceived severity:* Most people believe that cancer of any kind is very bad. Many people have known those who have died of colorectal cancer.
- *Perceived benefits of interventions:* An important message to stress about the colonoscopy is that polyps will be removed, and the chance of cancer virtually eliminated, if caught at an early stage. Another important benefit is that for someone found to have no polyps, and having no additional risk, the test is performed every 10 years.
- *Perceived barriers or costs of interventions:* Insurance to cover procedure; trusted physician; enema clean-out required; day of work lost; transportation home; fear of procedure [which is, in fact, done under anesthesia (twilight sleep) and painless]; and for many, men in particular, unpleasant perceptions of a rectal procedure.
- *Cues to activate behavior change:* Public messages that emphasize the higher death rate from colorectal cancer among African Americans are used to encourage their participation in colorectal cancer programs. Primary care physicians provide important cues when performing routine care for patients of appropriate age.
- *Self-efficacy to perform the behavior:* Arranging and organizing the appointment is the primary concern for self-efficacy. To overcome this and the obstacles previously listed, some programs use "patient navigators" to discuss what needs to be done and facilitate making an appointment.

[a]Colonoscopy should be done if test results are positive.
[b]For FOBT or FIT used as a screening test, the take-home multiple sample method should be used. A FOBT or FIT done during a digital rectal exam in the doctor's office is not adequate for screening.
[c]Based on ongoing research to promote colorectal cancer screening in African-American populations in Philadelphia. R. Myers, Principal Investigator, Thomas Jefferson University.
Source: American Cancer Society. Guidelines for the Early Detection of Cancer. Webpage. Available at: http://www.cancer.org/docroot/PED/content/PED_2_3X_ACS_Cancer_Detection_Guidelines_36.asp?siterea=PED. Accessed January 10, 2010.

Transtheoretical Model

The awkwardly named **Transtheoretical Model (TTM)**,[22] also known as **Stages of Change (SOC) Model**, indicates that individuals move through a specific process when deciding to change their behavior and then actually changing their behavior. These SOCs are:

- Precontemplation.
- Contemplation.
- Preparation.
- Action.
- Maintenance.

Different individuals may be at different stages along this process and thus must receive differently tailored interventions or communications according to their attitudes. For example, smokers who are in precontemplation have no intention of quitting smoking in the next six months, so information about cessation aids such as nicotine patches will not facilitate their cessation behavior. However, smokers in contemplation do plan to quit smoking in the next six months, and positively reinforcing this goal with enabling information should be more effective at this point. Descriptions of the other stages and appropriate health communication, education, and intervention strategies are listed in **Table 8–2**.[18]

The Precaution Adoption Process Model

The **Precaution Adoption Process Model (PAPM)**[23] looks quite similar to the TTM in that it consists of distinct stages between a lack of awareness and completed preventive action. According to its originators the stages are:

- Unaware of the issue.
- Aware of the issue but not personally engaged.
- Engaged and deciding what to do.
- Planning to act but not yet having acted.
- Deciding not to act.
- Acting.
- Maintenance.

PAPM asserts that these stages represent qualitatively distinct patterns of behavior, beliefs, and experience and that the factors that produce transitions between stages vary depending on the specific transition being considered.[23] The "deciding not to act" stage is unique to the PAPM, which was developed in reference to environmental hazards, hence *precaution adoption* in the name. It has been extensively applied to communicating about testing for radon in homes, installing smoke detectors, and the like. Now PAPM is being used increasingly in cancer screening communication.

Subsequent work[24] that combined the TTM with Social Cognitive Theory (see next section) eliminated the supposition that the TTM represents a smooth transition from one stage to the next, with different stages being influenced through quantity, not quality of message.

Social Cognitive Theory

Social Cognitive Theory (SCT)[25] hypothesizes that individual behavior is the result of constant interaction between the external environment and internal psychosocial characteristics and perceptions. This idea has been dubbed **reciprocal determinism**. There are many constructs included in SCT (**Table 8–3**). Self-efficacy ("I can do it") is one of them and has become an end

TABLE 8–2 Transtheoretical or Stages of Change Model Stages

Stage	Definition	Potential Change Strategies
Precontemplation	Has no intention of taking action within the next six months	Increase awareness of need for change, personalize information about risks and benefits
Contemplation	Intends to take action in the next six months	Motivate; encourage making specific plans
Preparation	Intends to take action within the next thirty days and has taken some behavioral steps in this direction	Assist with developing and implementing concrete action plans; help set gradual goals
Action	Has changed behavior for less than six months	Assist with feedback, problem solving, social support, and reinforcement
Maintenance	Has changed behavior for more than six months	Assist with coping, reminders, finding alternatives, avoiding slips/relapses (as applicable)

Source: National Cancer Institute. *Theory at a Glance, A Guide for Health Promotion Practice*, 2nd ed. NIH Publication No. 05-3896; 2005, p. 15. http://www.cancer.gov/PDF/481f5d53-63df-41bc-bfaf-5aa48ee1da4d/TAAG3.pdf.

TABLE 8–3 Social Cognitive Theory

Concept	Definition	Potential Change Strategies
Reciprocal determinism	The dynamic interaction of the person, behavior, and the environment in which the behavior is performed	Consider multiple ways to promote behavior change, including making adjustments to the environment or influencing personal attitudes
Behavioral capability	Knowledge and skill to perform a given behavior	Promote mastery learning through skills training
Expectations	Anticipated outcomes of a behavior	Model positive outcomes of healthful behavior
Self-efficacy	Confidence in one's ability to take action and overcome barriers	Approach behavior change in small steps to ensure success; be specific about the desired change
Observational learning (modeling)	Behavioral acquisition that occurs by watching the actions and outcomes of others' behavior	Offer credible role models who perform the targeted behavior
Reinforcements	Responses to a person's behavior that increase or decrease the likelihood of reoccurrence	Promote self-initiated rewards and incentives

Source: National Cancer Institute. *Theory at a Glance, A Guide for Health Promotion Practice*, 2nd ed. NIH Publication No. 05-3896; 2005, p. 20. http://www.cancer.gov/PDF/481f5d53-63df-41bc-bfaf-5aa48ee1da4d/TAAG3.pdf.

in itself for many behavior change interventions (e.g., teens avoiding high-risk behaviors or women negotiating condom use with their partners). **Vicarious (observational) learning** is another well-recognized construct in the SCT model, often used to teach people incremental behavior skills through role modeling.

Integrative Model

The **Integrative model (IM)**[26] represents an evolved version of Martin Fishbein's* *Theory of Reasoned Action (TRA)*.[27] Ajzen developed the *Theory of Planned Behavior (TPB)*[28] as an extension of the TRA. Fishbein and Ajzen worked together to develop the IM, which they also referred to as the *Reasoned Action Approach*.[26] See **Figure 8–1** for an illustration of the IM.

The most important assumption of the IM is that the best predictor of behavior is the *intention* to perform the behavior. This model focuses on the antecedents (predictors) of an individual's intention to perform (or not perform) a behavior. The IM focuses on the following beliefs:

- **Behavioral beliefs** are expectancies about positive or negative outcomes related to performing the behavior. These lead to formation of **attitudes**.
- **Normative beliefs** are perceptions about what relevant others think about performing the behavior, or beliefs about what others are doing. Together, these beliefs determine a concept of *perceived normative pressure* related to the behavior.
- **Control beliefs** relate to whether or not there are barriers or facilitators to performing the behavior. These are directly associated with an individual's *perceived behavioral control*, or *self-efficacy*, when performing the behavior.

The IM also takes into account various background factors, which influence the constructs in the model differently. These background factors include race, gender, personality, education, income, past behavior, etc. Factors such as media exposure can also be included. This is where health communication messages fit in.

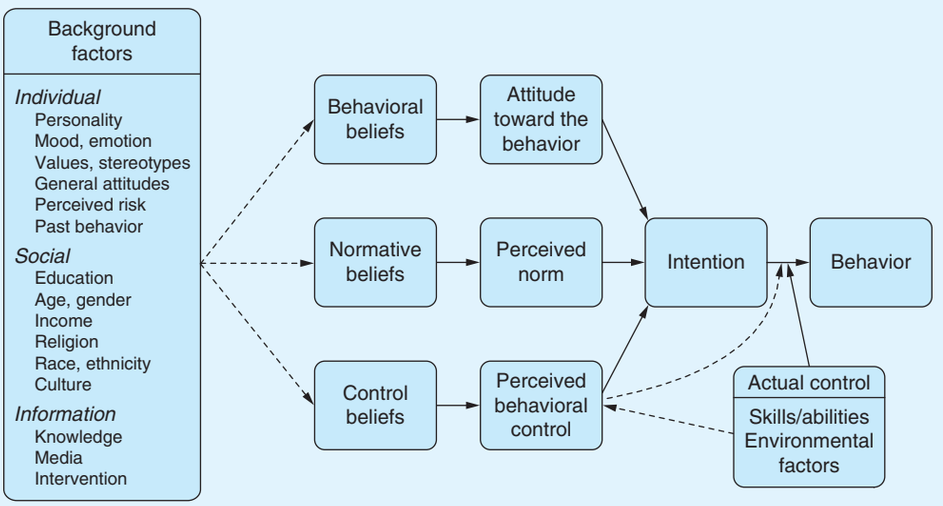
These components of the intervention work together. When performing research subject screening interviews, or initial surveys of the intended audience:

- Determine which of the direct antecedents of intention (attitude, perceived norms, self-efficacy) best predict intention.
- Elicit the beliefs underlying the attitudes, norms, and self-efficacy.
- Design your health communication message or messages to influence these antecedent beliefs.

Of course, if, during subject screening and surveys, you determine that your audience already intends to perform the behavior, you need not go through all the steps of the IM. In this case, it is not likely that their beliefs, attitudes, or self-efficacy are preventing them from adopting healthy behaviors. Instead, environmental factors, skills, or knowledge (factors that take *actual control* over the behavior) are likely precluding their behavior change. If environmental barriers exist, for example,

*This textbook includes a dedication to Dr. Fishbein, who passed away in 2009.

FIGURE 8–1 The Integrative Model



Source: Fishbein M, Ajzen, I. *Predicting and Changing Behavior: The Reasoned Action Approach.* New York: Psychology Press; 2010; p.22.

rather than designing your communication campaign to change intentions in a population, you might need to focus the campaign on changing policies (see Chapter 6) that affect the population's opportunities to perform the behavior.*

Diffusion of Innovations

All the preceding theories focus on individual behavior; **Diffusion of Innovations (DI)**[29] addresses change in a group. This can be a classroom, organization, or community. The theory describes how new ideas, or innovations, are spread within and among people, organizations, or communities. According to DI, innovations spread via different communication channels within social systems over a specific period of time. Health communicators should focus on specific aspects of an innovation, such as the *relative advantage*, *compatibility*, *complexity*, *trialability*, and *observability* of the innovation. The innovation should seem better than "the leading brand," be compatible with its specified audience, and be easy to adopt. People should also be able to "try it out" before committing to it, and the changes should be obvious enough for measurement.

Successful diffusion often relies on media communication as well as interpersonal communication and social networking. Messages should be targeted to the audience because some audiences are likely to adopt the innovation early, while other audiences will do so late. Still other audiences will *be* the innovators who diffuse the behavior change and will be receptive to very different kinds of message.

Malcolm Gladwell's popular book, *The Tipping Point*,[30] extends diffusion theory with the suggestion that the "innovators" in Rogers's terminology are indeed trendsetters who can create so much buzz around a new idea that it spreads very rapidly throughout a population. As discussed in Chapter 9, the strategy of targeting innovators is now being used for marketing segmentation. This is similar to the more traditional targeting of what Rogers called "early adopters" to lead the majority into adopting a behavior.

CONCLUSION

This chapter describes the theories used most often to predict persuasion and guide behavior change communication. There are two important take-away messages: (1) health interventions should be grounded in applicable change theories and audiences and (2) behaviors should be addressed systematically according to health marketing, targeting, and tailoring principles. In Chapter 9 we will discuss formative research that builds upon our theoretical understanding of health behavior. Chapter 10 shows how to apply these theories in communication practice strategies.

*This summary of the IM is based on the latest book by Fishbein and Ajzen, published in 2010. We are very fortunate to have received feedback from Dr. Fishbein about this summary in the fall of 2009.

KEY TERMS

Attitudes
Attributes
Audience segmentation
Barriers
Behavioral beliefs
Benefits
Channel segmentation
Competition
Control beliefs
Diffusion of Innovations
Doer versus non-doer analysis
Framing
Gain Framing
Health Belief Model (HBM)
Integrative Model (IM)
Loss Framing
Normative beliefs
Partner-based segmentation
Peripheral cues
Persuasion Theory
Positive deviance
Precaution Adoption Process Model (PAPM)
Reciprocal determinism
Segmentation
Self-efficacy
Social Cognitive Theory (SCT)
Social marketing
Stages of Change (SOC)
Tailoring
Targeting
Theoretical construct
Transtheoretical Model (TTM)
Vicarious (observational) learning

Chapter Questions

1. Describe different forms of segmentation. When would you choose various strategies?
2. What is the difference between targeting and tailoring?
3. List the four Ps of health marketing. How would you use these to describe a behavior to improve child nutrition in Bangladesh?
4. How is the Integrative Model different from Social Cognitive Theory or the Transtheoretical Model?
5. Pick a health behavior that is either a prevention or detection behavior, and develop either loss- or gain-framed messages to persuade people to adopt this behavior.

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