The Transtheoretical Model

The Transtheoretical Model:

- uses the Stages of Change to integrate the most powerful principles and processes of change from leading theories of counseling and behavior change;
- is based on principles developed from over 35 years of scientific research, intervention development, and scores of empirical studies;
- applies the results of research funded by over $80 million worth of grants and conducted with over 150,000 research participants; and
- is currently in use by professionals around the world.

Overview of the Model

The Transtheoretical Model (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992) is an integrative, biopsychosocial model to conceptualize the process of intentional behavior change. Whereas other models of behavior change focus exclusively on certain dimensions of change (e.g. theories focusing mainly on social or biological influences), the TTM seeks to include and integrate key constructs from other theories into a comprehensive theory of change that can be applied to a variety of behaviors, populations, and settings—hence, the name Transtheoretical.

The Stages of Change

Stages of Change lie at the heart of the TTM. Studies of change have found that people move through a series of stages when modifying behavior. While the time a person can stay in each stage is variable, the tasks required to move to the next stage are not. Certain principles and processes of change work best at each stage to reduce resistance, facilitate progress, and prevent relapse. Those principles include decisional balance, self-efficacy, and processes of change. Only a minority

(usually less than 20%) of a population at risk is prepared to take action at any given time. Thus, action-oriented guidance misserves individuals in the early stages. Guidance based on the TTM results in increased participation in the change process because it appeals to the whole population rather than the minority ready to take action.

The stage construct represents a temporal dimension. Change implies phenomena occurring over time. Surprisingly, none of the leading theories of therapy contained a core construct representing time. Traditionally, behavior change was often construed as an event, such as quitting smoking, drinking, or overeating. TTM recognizes change as a process that unfolds over time, involving progress through a series of stages. While progression through the Stages of Change can occur in a linear fashion, a nonlinear progression is common. Often, individuals recycle through the stages or regress to earlier stages from later ones.

Maintenance

Action

Preparation (Ready)

Contemplation (Getting Ready)

Precontemplation (Not Ready)

Precontemplation (Not Ready)

People in the Precontemplation stage do not intend to take action in the foreseeable future, usually measured as the next six months. Being uninformed or under informed about the consequences of one’s behavior may cause a person to be in the Precontemplation stage. Multiple unsuccessful attempts at change can lead to demoralization about the ability to change. Precontemplators are often characterized in other theories as resistant, unmotivated, or unready for help. The fact is, traditional programs were not ready for such individuals and were not designed to meet their needs.

Contemplation (Getting Ready)

Contemplation is the stage in which people intend to change in the next six months. They are more aware of the pros of changing, but are also acutely aware of the cons. In a meta-analysis across 48 health risk behaviors, the pros and cons of changing were equal (Hall & Rossi, 2008). This weighting between the costs and benefits of changing can produce profound ambivalence that can cause people to remain in this stage for long periods of time. This phenomenon is often characterized as chronic contemplation or behavioral procrastination. Individuals in the Contemplation stage are not ready for traditional action-oriented programs that expect participants to act immediately.

Preparation (Ready)

Preparation is the stage in which people intend to take action in the immediate future, usually measured as the next month. Typically, they have already taken some significant action in the past year. These individuals have a plan of action, such as joining a gym, consulting a counselor, talking to their physician, or relying on a self-change approach. These are the people who should be recruited for action-oriented programs.

Action

Action is the stage in which people have made specific overt modifications in their lifestyles within the past six months. Because action is observable, the overall process of behavior change often has been equated with action. But in the TTM, Action is only one of five stages. Typically, not all modifications of behavior count as Action in this Model. In most applications, people have to attain a criterion that scientists and professionals agree is sufficient to reduce risk of disease. For example, reduction in the number of cigarettes or switching to low-tar and low-nicotine cigarettes were formerly considered acceptable actions. Now the consensus is clear—only total abstinence counts.

Maintenance

Maintenance is the stage in which people have made specific overt modifications in their lifestyles and are working to prevent relapse; however, they do not apply change processes as frequently as do people in Action. While in the Maintenance stage, people are less tempted to relapse and grow increasingly more confident that they can continue their changes. Based on self-efficacy data, researchers have estimated that Maintenance lasts from six months to about five years. While this estimate may seem somewhat pessimistic, longitudinal data in the 1990 Surgeon General’s report support this temporal estimate. After 12 months of continuous abstinence, 43% of individuals returned to regular smoking. It was not until 5 years of continuous abstinence that the risk for relapse dropped to 7% (USDHHS).

Decisional Balance

Decision making was conceptualized by Janis and Mann (1977) as a decisional “balance sheet” of comparative potential gains and losses. Two components of decisional balance, the pros and the cons, have become core constructs in the Transtheoretical Model. As individuals progress through the Stages of Change, decisional balance shifts in critical ways. When an individual is in the Precontemplation stage, the pros in favor of behavior change are outweighed by the relative cons for change and in favor of maintaining the existing behavior. In the Contemplation stage, the pros and cons tend to carry equal weight, leaving the individual ambivalent toward change. If the decisional balance is tipped however, such that the pros in favor of changing outweigh the cons for maintaining the unhealthy behavior, many individuals move to the Preparation or even Action stage. As individuals enter the Maintenance stage, the pros in favor of maintaining the behavior change should outweigh the cons of maintaining the change in order to decrease the risk of relapse.

Self-Efficacy

The TTM integrates elements of Bandura’s self-efficacy theory (Bandura, 1977, 1982). This construct reflects the degree of confidence individuals have in maintaining their desired behavior change in situations that often trigger relapse. It is also measured by the degree to which individuals feel tempted to return to their problem behavior in high-risk situations. In the Precontemplation and Contemplation stages, temptation to engage in the problem behavior is far greater than self-efficacy to abstain. As individuals move from Preparation to Action, the disparity between feelings of self-efficacy and temptation closes, and behavior change is attained. Relapse often occurs in situations where feelings of temptation trump individuals’ sense of self-efficacy to maintain the desired behavior change.

Processes of Change

While the Stages of Change are useful in explaining when changes in cognition, emotion, and behavior take place, the processes of change help to explain how those changes occur. These ten covert and overt processes need to be implemented to successfully progress through the stages of change and attain the desired behavior change. These ten processes can be divided into two groups: cognitive and affective experiential processes and behavioral processes.

Cognitive and Affective Experiential Processes

1. Consciousness Raising (Get the Facts)
2. Dramatic Relief (Pay Attention to Feelings)
3. Environmental Reevaluation (Notice Your Effect on Others)
4. Self-Reevaluation (Create a New Self-Image)
5. Social Liberation (Notice Public Support) Processes

Behavioral Processes

6. Self-Liberation (Make a Commitment)
7. Counter Conditioning (Use Substitutes)
8. Helping Relationships (Get Support)
9. Reinforcement Management (Use Rewards)
10. Stimulus Control (Manage Your Environment)

Critical Assumptions of the TTM

The Transtheoretical Model is also based on critical assumptions about the nature of behavior change and population health interventions that can best facilitate such change. The following set of assumptions drives Transtheoretical Model theory, research, and practice:

- Behavior change is a process that unfolds over time through a sequence of stages. Health population programs need to assist people as they progress over time.
- Stages are both stable and open to change, just as chronic behavior risk factors are both stable and open to change.
- Population health initiatives can motivate change by enhancing the understanding of the pros and diminishing the value of the cons.
- The majority of at-risk populations are not prepared for action and will not be served by traditional action-oriented prevention programs. Helping people set realistic goals, like progressing to the next stage, will facilitate the change process.
- Specific principles and processes of change need to be emphasized at specific stages for progress through the stages to occur.

Transtheoretical Model Research Breakthroughs

1980s

- Discovered the Stages of Change and the dynamic principles and processes of change related to each stage

1990s

- Developed the first computer-tailored intervention based on the Transtheoretical Model of Behavior Change
- Demonstrated tailored interventions for smoking cessation effective even when more than 80% were not ready to quit
- Applied the Transtheoretical Model to a variety of behaviors beyond smoking cessation

2000s

- Demonstrated that Transtheoretical Model-based interventions for simultaneous multiple behavior change are effective
- Applied the Transtheoretical Model to a wide variety of new behavior change challenges
- Served entire populations with inclusive proactive and home-based care

2010s

- Implemented innovative strategies to ensure greater impact on multiple behaviors with fewer demands on patients and providers
- Designed a more cost-effective delivery (/product-delivery-partner-integration) for coaching and online programs (/behavior-change-products)
- Gained synergistic insights into how changing one behavior increases the chance of changing other behaviors

(coaction)

- Improved well-being by increasing productivity and thriving
- Increased the efficacy of our best practices by 26% as a result of adding tailored text messages (/sms-text-message-well-being)
- Developed a Clinical Dashboard (/healthcare-provider-clinician-dashboard) to provide evidence-based stage matched behavior change messages for clinicians to deliver to patients.

Tailoring Matters

A recent meta-analyses, by Noar et al., of 57 studies demonstrated greater effects in programs that are tailored on each of the Transtheoretical Model constructs. Specifically, programs that tailor on stage do better than those that do not; programs that tailor on pros and cons do better than those that do not; programs that tailor on self-efficacy do better than those that do not, and programs that tailor on processes of change do better than those that do not.

Noar, S.M., Benac, C.N., and Harris, M.S. (2007) Does tailoring matter? Meta-analytic review of tailored print health behavior change interventions. *Psychological Bulletin*, 4, 673-693. abstract

To learn about the efficacy of our online programs, see the citations on each of our products pages, or our program effectiveness summary (/health-behavior-change-research-outcomes). A 2008 replication study at Oregon Science and Health University also shows program effectiveness; see:

Prochaska, J.O., Butterworth, S., Redding, C.A., Burden, V., Perrin, N., Lea, Michael, Flaherty, Robb M., and Prochaska, J.M. (2008). Initial efficacy of MI, TTM tailoring, and HRI's in multiple behaviors for employee health promotion. *Preventive Medicine*, 46, 226-231. abstract

Prochaska, J.O., DiClemente, C.C., & Norcross, J.C. (1992). In search of how people change: Applications to the addictive behaviors. American Psychologist, 47, 1102-1114. PMID: 1329589.

Prochaska, J.O., Redding, C.A., & Evers, K. (2002). The Transtheoretical Model and Stages of Change. In K. Glanz, B.K. Rimer & F.M. Lewis, (Eds.) Health