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David A. Frenz, MD
Editor-in-Chief

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IN THIS ISSUE

Focus of the Month:
Change Management in Addiction Treatment

Learning objectives for this issue:
1. Describe the Transtheoretical Model (TTM) of change and what research says about its use in addiction treatment. **2.** Summarize how clinicians can apply the ADKAR model of change to helping people with addiction. **3.** Evaluate some current research regarding addiction.

Does the Transtheoretical Model of Change Work for Addiction?

David A. Frenz, MD
Medical Director, Addiction Medicine, HealthEast Care System, St. Paul, Minnesota

Dr. Frenz has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

Summary

- The Transtheoretical Model (TTM) of behavior change assesses an individual's readiness to change problem behaviors and act on new, more positive behaviors
- The TTM posits that change occurs across six chronological stages starting with precontemplation and ending with no temptation for the old behavior
- Studies have cast some doubt on how well the model works for addiction and critics argue that the model oversimplifies the complex nature of change

The Transtheoretical Model (TTM) of behavior change has become almost universally accepted in addiction treatment. Like all dogmas, it is rarely critically examined, leading to blind belief and unskilled use.

In a nutshell, the TTM assesses an individual's readiness to both change problem behaviors and act on new, more positive behaviors. The model holds that change occurs across a continuum of six stages beginning with no desire to change and culminating in changes that are hardwired.

These stages include precontemplation, contemplation, preparation, action, maintenance, and termination. Distinct from these stages of change, various

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Q&A With the Expert

An Alternative, Business-World Approach to Driving Change

Dan Gamble

Research Analyst
Change Management Learning Center
Loveland, Colorado

Mr. Gamble has disclosed that he is employed by Prosci, Inc, which owns the copyright for the Prosci ADKAR Model. Dr. Frenz has reviewed this interview and found no evidence of bias in this educational activity.

CATR: Mr. Gamble, what is the ADKAR change model?

Mr. Gamble: ADKAR is a model for facilitating change that is widely used in business and government. It was developed by Jeffrey Hiatt in the 1990s. ADKAR is an acronym for a way research has identified that people effectively change. The elements of that acronym are *awareness, desire, knowledge, ability,* and *reinforcement.* [The basics of ADKAR can be found in Hiatt's book *ADKAR: A Model for Change in Business, Government and Our Community.* Loveland, CO: Prosci Research; 2006.]

CATR: And how was this model developed?

Mr. Gamble: Toward the end of the last century, more and more companies were investing millions of dollars into automating their processes, but finding out that peo-

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Does the Transtheoretical Model of Change Work for Addiction?

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"processes of change" are the essential ingredients, or underlying mechanisms, propelling change.

In this article, we'll rewind to the TTM's genesis. Next, we'll fast forward a few decades and look at its use in addiction treatment. Finally, we'll consider some effectiveness data that severely challenge the model, at least for substance abuse treatment.

In the Beginning

James O. Prochaska, PhD, a major figure in contemporary psychology, developed the TTM in the 1970s. Then, like now, there were hundreds of competing theories of psychotherapy (Glanz K et al, eds. *Health Behavior and Health Education: Theory, Research, and Practice.* 4th ed. San Francisco, CA: Jossey-Bass; 2008:97–121). Moreover, there wasn't a clear model for understanding and facilitating behavioral change.

Prochaska and his colleagues analyzed and compared 18 types of psychotherapy to create a comprehensive model for change that cut across various theories. (Transtheoretical means "across theories.") That work resulted in the familiar "stages of change" concept, plus three other components that make up the TMM: processes of change, decisional balance, and self-efficacy.

Stages of change, widely used in substance abuse treatment, is perhaps the TTM's most enduring idea (see The Stages of Change on p. 3 for more on those stages).

Maintenance of a new behavior, the usual goal of treatment, can take up to five years to achieve. In fact, a minority of patients ever reach the final stage of termination—where they have zero temptation and are sure they will not return to their old behavior—and act "as if they never acquired the [problem] behavior in the first place" (Glanz K et al, *ibid*).

Processes of Change

Clinicians are much less familiar with the TTM component known as processes of change. These are defined as the "covert and overt activities that people use to progress through stages [of change]" (Glanz K et al, *ibid*). On a more basic level, "any activity that you initiate to help modify your thinking, feeling, or behavior is a change process" (Prochaska JO et al, *Changing for Good.* New York, NY: William Morrow & Co; 1994:25).

So, for instance, a change process might be realizing how problem drinking affects other family members and how the client could have more positive relationships by changing the behavior. From an addiction treatment standpoint, this is where the rubber meets the proverbial road.

The processes of change reside in a middle ground between specific psychological theories and actual therapeutic techniques (Prochaska JO, Norcross JC, *Systems of Psychotherapy: A Transtheoretical Analysis.* 8th ed. Independence, KY: Cengage Learning; 2014:9).

As examples, in psychoanalysis (theory), clinicians might facilitate this process of change through free association (technique). In person-centered therapy (theory), by comparison, clinicians tend to employ reflection (technique). In cognitive therapy (theory), clinicians challenge clients' illogical and irrational thinking (technique). And so on.

TTM in Addiction Treatment

The TTM stresses "doing the right thing at the right time," that is, tailoring interventions to where a client is in the stages of change. This is where addiction treatment often goes off the rails. In many cases, wrong interventions occur: the clinician employs non-specific methods or uses change-promoting techniques at the wrong stage of change.

Psychologist Mary Marden Velasquez, PhD, and colleagues developed perhaps the most robust TTM-based approach to addiction treatment (Velasquez MM et al. *Group Treatment for Substance Abuse.* New York, NY: The Guilford Press; 2001). Therapy sessions proceed in a linear manner through the stages of change. The change processes for each session are clearly specified and linked to clinician interventions and strategies. When used in a group format, the recommended structure is:

- Group size: 8–12 patients
- Group frequency: 1–3 times per week
- Session length: 60–90 minutes
- Program duration: 29 sessions

The first five sessions, for example, are designed to raise consciousness about the extent of substance use, severity of addiction, and possible reasons for substance use. Clients identify their present stage of change and complete a "Day in the Life" exercise describing current substance use.

The Alcohol Use Disorders Identification Test (http://bit.ly/18Q6dWV) and Drug Screening Inventory are administered to benchmark disease severity. Clients also complete an instrument that explores positive expectancies. Some sample questions, which are true/false in nature, are:

- Using alcohol or other drugs makes me feel less shy
- I'm more romantic when I use alcohol or other drugs

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Does the Transtheoretical Model of Change Work for Addiction?

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- Alcohol or other drugs help me sleep better

Does it Work for Addiction?

So far, so good. But here's a question: does TTM actually work for addiction? The answer may surprise you.

Although the TTM literature is vast, essentially all addiction studies have dealt with only smoking cessation. A large narrative review concluded that there are more positive studies than not and that higher quality studies tended to support stage-based interventions (Spencer L et al, *Am J Health Promot* 2002;17(1):7–71).

Subsequent meta-analyses, however, cast considerable doubt on stage-based approaches. Two found little evidence that tailoring interventions to stages of change achieved better outcomes than other treatments and non-treatment controls (Riemsma RP et al, *BMJ* 2003;326(7400):1175–1177; Bridle C et al, P*sychol Health* 2005;20(3):283–301). Moreover, TTM-based approaches weren't particularly effective in promoting forward movement through the stages of change.

The most recent meta-analysis looked at 15 studies involving about 12,000 smokers (Noar SM et al, *Psychol Bull* 2007;133(4):673–693). Tailored interventions showed very slight benefit, at best, with the pooled outcome falling below the usual threshold for a small effect size. Keep in mind that "a medium effect size is conceived as one large enough to be visible to the naked eye" (Cohen J. S*tatistical Power Analysis for the Behavioral Sciences,* 2d ed. Hillsdale, NJ: Lawrence Erlbaum Associates; 1988:26).

So the benefit of TTM, if real, probably isn't clinically meaningful. All sorts of reasons exist for these findings. One of the biggest problems is the ability to accurately stage patients. As noted previously, wrong stage equals wrong intervention and (if TTM holds water) lower probability of change.

More fundamentally, there are serious questions about the stages themselves. Critics have noted that the criteria for the various stages are arbitrary and that patients' intentions are neither coherent nor stable over time (West R, *Addiction* 2005;100(8):1036–1039). For example, multiple studies have demonstrated that a substantial proportion of smokers try quitting out of the blue (and often succeed) without preceding behaviors consistent with the stages of change (Ferguson SG et al, *Nicotine Tob Res* 2009;11(7):827–832).

CATR'S TAKE: TTM has been around forever and is so intuitive that it's unsettling to consider that it might not work for addiction treatment. At minimum, TTM probably oversimplifies the complex, nonlinear nature of change. Although alternative models and methods exist and are being tested, we're not quite ready for a wholesale paradigm change. TTM will likely continue to benefit some clients but clinical failures or clients who succeed without it shouldn't surprise us.

The Stages of Change

The Transtheoretical Model (TTM) posits that change occurs across a continuum that includes the following six stages:

1. *Precontemplation*—Clients do not intend to take action within the next six months
2. *Contemplation*—Clients intend to take action within the next six months
3. *Preparation*—Clients intend to take action within the next 30 days and have already taken some steps to change their behavior
4. *Action*—Clients have changed their behavior for six months or less
5. *Maintenance*—Clients have changed their behavior for more than six months
6. *Termination*—Clients are not tempted to relapse and are certain they will not return to their old behavior

Source: Adapted from Glanz K et al, eds. *Health Behavior and Health Education: Theory, Research, and Practice.* 4th ed. San Francisco, CA: Jossey-Bass; 2008:97–121.

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ple weren't using them. They were doing work-arounds and reverting back to their old way of doing things, and so a lot of money was squandered. It was in researching why people resist change and what makes people respond to change that ADKAR was developed.

CATR: How is ADKAR used in the healthcare industry?

Mr. Gamble: ADKAR is used by healthcare organizations to help employees with change. In terms of mental health, it can assist with managing a department or service line (Oakley C & Sugarman P, *Adv Psychiatr Treat* 2013;19(2):108–114). From a clinical standpoint, ADKAR can support quality improvement efforts (Varkey P & Antonio K, *Am J Med Qual* 2010;25(4):268–273; Burleton L, *Nurs Stand* 2013;27(39):35–40).

CATR: ADKAR is used widely in the business world. The part that is really intriguing for readers of *CATR* is that it is dissimilar in many ways from how addiction treatment often goes. So it gives another option to clinicians who are having trouble with the "traditional" models of change for patients.

Mr. Gamble: Yes, while designed for corporations, ADKAR is truly an individual change model that can be applied to projects and scenarios that require people to change the way they operate. The biggest point to ADKAR is that the process of change must

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be linear. It needs to go through the elements of awareness, desire, knowledge, ability, and reinforcement sequentially in order to work. So you can't just start at "K," knowledge, before everything else. Research shows you must build the awareness of the need to change and desire to support the change before the knowledge step may be achieved.

CATR: Theoretically that makes a whole lot of sense. So when you actually get down to implementation, how does it work?

Mr. Gamble: The first thing you have to do is build that awareness. And it is not awareness *of* the change; it is awareness of *the need* for the change. Why does this change need to happen? What will happen if you don't change right now? Those messages are the most important to send in building awareness. This often has to be hammered home through repetition.

Everybody has the ability to change the way they are if they are given the right circumstances and tools to do so.

Dan Gamble

CATR: Then the next step—the desire.

Mr. Gamble: If that awareness of "why" is established sufficiently, the "D"—the desire—sort of takes care of itself because you have established in that person's mind that, indeed, this change has to happen, and it has to happen now, and there will be consequences if it doesn't. With that said, desire is often the most difficult to achieve, and comes down to a personal decision.

CATR: You said that in many cases desire naturally follows from awareness. What if it doesn't? How can you boost desire?

Mr. Gamble: That has to be done on a very personal level. So in the business world, that may be achieved by a manager sitting down with a person, or in a therapeutic relationship with the therapist, and talking about WIIFM—"what's in it for me," which is a very compelling message, and that can often be key to that desire part.

CATR: How critical is knowledge to the overall equation once you get people who have awareness and desire?

Mr. Gamble: Well, the knowledge piece really ties into the specific change that is happening. This step can be really simple, and with awareness and desire in place, you will often find a natural urgency to learn the new ways.

CATR: What are the best strategies for approaching ability?

Mr. Gamble: That is a good question. Knowledge and ability are sometimes used interchangeably, but they are not the same. The analogy that I hear often is related to golf. I may have the knowledge of how to execute a perfect golf swing—I can watch videos on it, read books about where to keep my head, how to position my body, all that sort of thing. Yet that does not mean that I have the *ability* to execute that perfect golf swing. Ability comes down to the actual implementation of the knowledge; applying that knowledge to achieve the desired outcome.

CATR: What does reinforcement look like?

Mr. Gamble: Celebrating wins is one of the main ways, regardless of their size or scope. Any small victories should be celebrated. Setting people up with milestones provides achievable goals, and are certainly worth celebrating. Any acknowledgement of people successfully implementing the change, using the new tools, or doing things correctly. Another part of the reinforcement is a certain element of accountability and policing to make sure people are indeed doing things the way they are supposed to.

CATR: Part of the subtitle of the ADKAR book is "How to Implement Successful Change in our Personal Lives." How can ADKAR translate to personal change, for instance, for a client who wants to stop drinking alcohol?

Mr. Gamble: That gets back to the idea of awareness of the reason for the change. I personally like to equate it to the 12-steps that are part of Alcoholics Anonymous (AA), as well as other addiction recovery-type programs. Those first two steps—giving yourself up, surrendering to the change that you know needs to happen—that is the "A" in ADKAR, because you are aware of the need for this change and become willing to do whatever it takes. And there is the third step in AA: desire. There is desire to the extent that you become willing to turn over your life to, in this case, a higher power that is able to end that insanity.

CATR: Does this translate further?

Mr. Gamble: I see parallels throughout those 12 steps to ADKAR. I think steps four through six illustrate the "knowledge" piece, because people start learning about how their lives are controlled by resentments. You start to realize that maybe you are the source of the very things that you are angry about. And that knowledge is very empowering and liberating. Steps seven through nine track with the concept of "ability." Steps 10 through 12 correlate with "reinforcement." The tenth step is the epitome of "reinforcement," where you basically are doing an inventory each night and turning things over to a higher power. You continue to reinforce that behavior by ultimately working with others to share that very gift that you have been given.

CATR: A problem drinker may have an awareness that something bad might happen if his wife says, "You can't live here anymore unless you clean up your act." But are you talking about another type of awareness?

Mr. Gamble: Often we hear about the need for a person with addiction to hit rock bottom. I think for every person there is a certain situation that will trigger that moment of clarity. While the ADKAR model certainly speaks to the fact that there are different ways that people change and the 12-step model follows that, it still doesn't mean that there is a silver bullet for getting people to that level of awareness/desire where they are indeed willing to give up control of their lives.

CATR: So someone has awareness that change must occur, but must they also have a reason to change?

Mr. Gamble: It is the awareness of *why* it has to happen. The scenario you give of a wife telling a husband, "Look, you either quit drinking or get out of the house," doesn't necessarily give him the "why" he needs to quit drinking. All she has done is given him

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options. That doesn't necessarily lead to understanding why this change needs to happen to him, personally, right now. That is probably the hardest part, getting people to that point, because once you get them to that point there are methods and solutions.

CATR: So, in the case of a problem drinker, he may say, "I finally acknowledge that my life is unmanageable." But what motivates desire then?

Mr. Gamble: Someone in recovery may see the freedom in others who have been down that road before them. They see people who have stories to tell like theirs and yet seem to be enjoying themselves, seem to actually be living a life that has some joy in it. Someone in recovery might say, "I saw something I wanted and I became willing to do what it took to get it." That desire may come from seeing other people living the life they want to live.

CATR: What is the knowledge piece, then, to a problem drinker's recovery?

Mr. Gamble: For some people, once you have the awareness and desire, they may need a program or model, a roadmap of how to stop drinking. It may be AA's 12 steps—the knowledge of getting a sponsor and embarking on that journey. Within those steps, you learn more about yourself and you do a fearless evaluation of yourself. There are obviously other programs, too.

CATR: So what does ability consist of?

Mr. Gamble: Unlike in business where someone may not have the ability to do a new job, everybody has the ability to change the way they are if they are given the right circumstances and tools to do so.

CATR: And just more specifically, is it an ability to not drink or a different type of ability?

Mr. Gamble: For those in recovery, it may be an ability to work the program, to do the steps necessary such as identifying people you wronged and making amends.

CATR: How would reinforcement work in this model for the problem drinker who is making progress in stopping drinking?

Mr. Gamble: In AA, for instance, in the beginning people pick up a chip every month to mark their sobriety. Later, they do so once a year. That is reinforcement with that acknowledgement, in front of your peers, of length of time sober.

CATR: Thank you for sharing your knowledge with us, Mr. Gamble.

Comparing a Business Model for Change to a Personal Model for Recovery
ADKAR and AA's 12 Steps

ADKAR Model for Change	AA's 12-Step Program of Recovery
Awareness On a scale of 1 (no awareness) to 5 (complete awareness), what is your awareness of the need for the change? What issues created the need for the change?	1. We admitted we were powerless over alcohol—that our lives had become unmanageable. 2. Came to believe that a Power greater than ourselves could restore us to sanity.
Desire On a scale of 1 (no desire) to 5 (intense desire), how strongly do you desire the change? What are the motivating factors or consequences (good and bad) that impact your desire to achieve the change? What are compelling reasons to support the change and specific objections to the change?	3. Made a decision to turn our will and our lives over to the care of God *as we understood Him.*
Knowledge On a scale of 1 (no skills and knowledge) to 5 (sufficient skills and knowledge), how do you rate your skills and knowledge needed for the change? What skills and knowledge do you need to support the change, both during and after the transition? Have you received training and education needed to support and achieve the change?	4. Made a searching and fearless moral inventory of ourselves. 5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs. 6. Were entirely ready to have God remove all these defects of character.
Ability On a scale of 1 (no ability) to 5 (sufficient ability), how do rate your ability to implement the change? What challenges do you foresee? What barriers within the organization will interfere with the change?	7. Humbly asked Him to remove our shortcomings. 8. Made a list of all persons we had harmed, and became willing to make amends to them all. 9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
Reinforcement On a scale of 1 (no reinforcement) to 5 (frequent reinforcement), how much reinforcement are you receiving for your work on the change? What incentives are in place to help you make the change stick? What incentives do not support the change?	10. Continued to take personal inventory and when we were wrong promptly admitted it. 11. Sought through prayer and meditation to improve our conscious contact with God, *as we understood Him,* praying only for knowledge of His will for us and the power to carry that out. 12. Having had a spiritual awakening as the result of these Steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

Sources: Hiatt JM, *ADKAR: A Model for Change in Business, Government and Our Community.* Loveland, CO: Prosci Learning; 2006:139; *Alcoholics Anonymous, 4th ed.* New York: Alcoholics Anonymous World Services; 2001:59–60.

Research Updates

TREATMENT MODELS

Chronic Care Management Doesn't Improve Outcomes

Chronic care management (CCM), used successfully to treat other chronic diseases such as diabetes and cardiovascular disease, is one approach being looked at to improve care and clinical outcomes for patients with addiction.

The Addiction Health Evaluation and Disease Management (AHEAD) study, a randomized trial involving 563 participants with alcohol and/or drug dependence, was recently completed at a hospital-based primary care clinic at Boston Medical Center.

The findings were both surprising and discouraging: CCM did not improve addiction outcomes or health care utilization.

About half of the participants (n=282) were assigned to receive CCM, while the other half (n=281) received an appointment with a primary care physician and a list of addiction treatment resources. The CCM team consisted of a nurse care manager, social worker, internists and a psychiatrist with addiction expertise.

Patients in the intervention group were offered a wide range of services tailored to their needs: motivational enhancement therapy, relapse prevention counseling, addiction pharmacotherapy, and substance abuse treatment. Care was flexibly delivered via scheduled clinic appointments, by telephone, on a drop-in basis, and by 24-hour pager. Patients were followed for one year.

Patients received payment at various time points during the study. They were also offered a meal and reimbursement for transportation to each visit. Not surprisingly, patient retention was very high (95% at 12 months).

AHEAD's primary outcome was self-reported abstinence from alcohol and other drugs. Forty-four percent of patients in the CCM group were abstinent at study completion compared to 42% in the control group (difference not statistically significant). There were no differences for a host of secondary measures: addiction severity, health-related quality of life, emergency department visits, and hospitalizations. No financial data were presented, however, one can assume that the CCM infrastructure was costly.

The researchers offered various explanations for CCM's lack of apparent benefit but ultimately concluded, "low intervention potency seems an unlikely explanation for the results" (Saitz R et al, *JAMA* 2013;310(11):1156–1167).

CATR's Take: Addiction is a chronic, relapsing-remitting disease. This investigation, the most rigorous to date, severely challenges the efficacy of CCM for substance use disorders. The authors appropriately noted that perhaps, "not all chronic diseases are the same and that CCM may not have the same effect across conditions for which complexity varies." Although further research is clearly warranted, CCM is not yet ready for prime time in general community settings.

NICOTINE

Still Waiting for Good Data on Electronic Cigarettes

Can electronic cigarettes, commonly referred to as e-cigarettes, play a role in helping people quit smoking tobacco? A group of researchers in New Zealand conducted a randomized controlled trial to see if e-cigarettes, which deliver nicotine and can reduce nicotine withdrawal, were as effective as nicotine patches in promoting abstinence.

E-cigarettes are battery-powered devices that vaporize nicotine for inhalation. The researchers randomly assigned 657 adult smokers wanting to quit to one of three groups: 1) nicotine e-cigarettes, as needed; 2) nicotine patches, 21 mg per day; and 3) placebo e-cigarettes, as needed. Study participants could also call a national Quitline, a telephone counseling service, but received no other support in their effort to quit smoking.

The investigators performed several experiments to estimate the amount of nicotine delivered by the e-cigarettes. The e-cigarettes used cartridges that were found to contain 10–16 mg of nicotine. Three hundred puffs of vapor from these cartridges yielded a total of 3–6 mg of nicotine.

Study subjects could use their assigned product for one week prior to and 12 weeks after their quit dates. The primary outcome was six months of continuous abstinence, which was biochemically verified by measuring exhaled carbon monoxide. Just over 7% of participants in the nicotine e-cigarette group had sustained abstinence compared to 5.8% of participants using nicotine patch and 4.1% in the placebo e-cigarette group. Differences between groups were not statistically significant but the authors acknowledged the study was underpowered.

There were a total of 292 adverse events across all groups, however, only four were "probably" or "definitely" secondary to the products used. Forty-six serious adverse events, including death, occurred. Again, none were linked to the study products.

Some 85%, 88%, and 50% of nicotine e-cigarette users, placebo e-cigarette users, and nicotine patch users, respectively, reported that they would recommend their product to someone who wanted to quit smoking (Bullen C et al, *Lancet* 2013;382(9905):1629–1637).

CATR's Take: E-cigarettes are currently a hot item, especially in states that heavily tax tobacco and prohibit smoking in public spaces. This study, the largest and most rigorous to date, was unable to reach any firm conclusions about their efficacy as aids to smoking cessation. The device and nicotine solution used in this particular trial had a favorable short-term safety profile, which is somewhat reassuring. We will need to continue to plead ignorance to our patients until better data emerge.

CE/CME Post-Test

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Below are the questions for this month's CE/CME post-test. This page is intended as a study guide. Please complete the test online at www.carlataddictiontreatment.com. Note: Learning objectives are listed on page 1.

1. The Transtheoretical Model (TTM) of change holds that change occurs across a continuum of how many stages (Learning Objective #1)?
   [ ] a) 4 [ ] b) 6 [ ] c) 10 [ ] d) 12

2. Mary Marden Velasquez, PhD, and colleagues developed a program for using TTM in addiction treatment that involves how many sessions (LO #1)?
   [ ] a) 8 [ ] b) 12 [ ] c) 13 [ ] d) 29

3. The "D" in the ADKAR model of change stands for which of the following (LO #2)?
   [ ] a) Desire [ ] b) Development [ ] c) Direction [ ] d) Desperation

4. A recent study that looked at chronic care management found that it improved care and clinical outcomes for patients with addiction, just as it does for other chronic diseases (LO #3).
   [ ] a) True [ ] b) False

5. Researchers in New Zealand found that which of the following was true of electronic cigarettes (LO #3)?
   [ ] a) 4.1% of users maintained sustained abstinence
   [ ] b) They had a high rate of serious adverse events
   [ ] c) Smokers liked them and would recommend them to their friends
   [ ] d) Three hundred puffs of vapor from a 10–16 mg cartridge yielded a total of 12 mg of nicotine

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News of Note

Controversy Surrounds FDA Approval of New Opioid Drug

A coalition, formed to fight what it sees as an opioid epidemic, is rallying support against the US Food and Drug Administration's (FDA) approval of the drug Zohydro.

The FED UP! Coalition is urging supporters to sign a letter to the FDA to fight the agency's approval of the drug, which it says will increase the opioid epidemic and the number of deaths from overdoses (www.feduprally.org).

In October 2013, the FDA approved Zohydro ER (hydrocodone extended release capsules) for the management of pain severe enough to require daily, around-the-clock, long-term treatment and for which alternative treatment options are inadequate. In a press release, the FDA said it is the first approved single-entity (not combined with another analgesic) and extended-release hydrocodone product (http://1.usa.gov/1nTm63f). It is a Schedule II controlled substance.

In a January e-mail, the coalition said Zohydro "could be the next OcyContin." The group said the FDA approved Zohydro even though the advisory committee it commissioned to review the new drug voted against approval by a 11–2 vote. "This drug is the first form of pure hydrocodone on the US market and does not contain any abuse-deterrent qualities," the e-mail said.

The coalition said the FDA has already received a letter from state Attorneys General from across the US and letters from members of Congress opposing approval of the drug. It is now soliciting signatures of support from advocacy groups, public and private agencies, and businesses to send to the FDA commissioner. "Our goal is to make a strong statement to the FDA and the media that we will not allow the agency to continue rubber-stamping dangerous new opioid drugs in the midst of a raging epidemic," the coalition said.

Welcome to the Future: Drug Testing with a Fingerprint

Fingerprint biometrics may be coming to an addiction treatment program near you.

A company from the United Kingdom, Intelligent Fingerprinting, is currently developing a portable drug testing device that will be able to detect multiple drugs of abuse in the sweat from a single fingerprint. The company, based in Norfolk, England, plans to market this new technology later this year.

The device, which the company says is easy to use and provides results in less than 10 minutes, would replace the need for patients to provide traditional body fluids, such as urine, to test for illicit drugs.

It would provide drug testing that's non-invasive, fast, and cost-effective, to screen for up to five classes of substances: amphetamines, benzodiazepines, cannabis, cocaine, and opioids.

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The device works like this: a fingerprint sample is collected on a small receptacle, which is then inserted into the device. The device analyses the sweat in the fingerprint using an immunoassay and provides a pass or fail for each substance class according to predetermined cut-off values. The device will also have the option of capturing a detailed image of the fingerprint that the clinic can use to verify a patient's identity, with the intended goal of preventing cheating and sample mix-ups. The cost of testing will apparently be comparable to existing methods.

Intelligent Fingerprints, along with addiction medicine experts at the University of Eastern Finland, and the Finnish healthcare technology company Addoz Oy, are beginning clinical trials. The research is funded by a $1.4 million grant from Eurostars, a program for funding research and developing initiatives across Europe. The device is not approved by the US Food and Drug Administration (FDA).

Want to Know *Even More* About Change?

Visit www.carlatbehavioralhealth.com for an article by Don Kuhl of The Change Companies on what motivates people to want to change.

Next month in *The Carlat Addiction Treatment Report*: Coping with Bad Outcomes

This Month's Focus:
Change Management in Addiction Treatment