

Incorporating Behavior Change Science Into CME Course Design

One of the challenges within continuing medical education (CME) is the mobilization of evidence into practice.

Researchers have shown that it takes 17 years for evidence-based research to be fully incorporated into practice.¹ Furthermore, there is abundant documentation of disparities of care, access to care, and other gaps across all health care disciplines.^{2,3} Continuing medical education activities are uniquely poised to address these issues, but research on how to implement these plans is lacking.

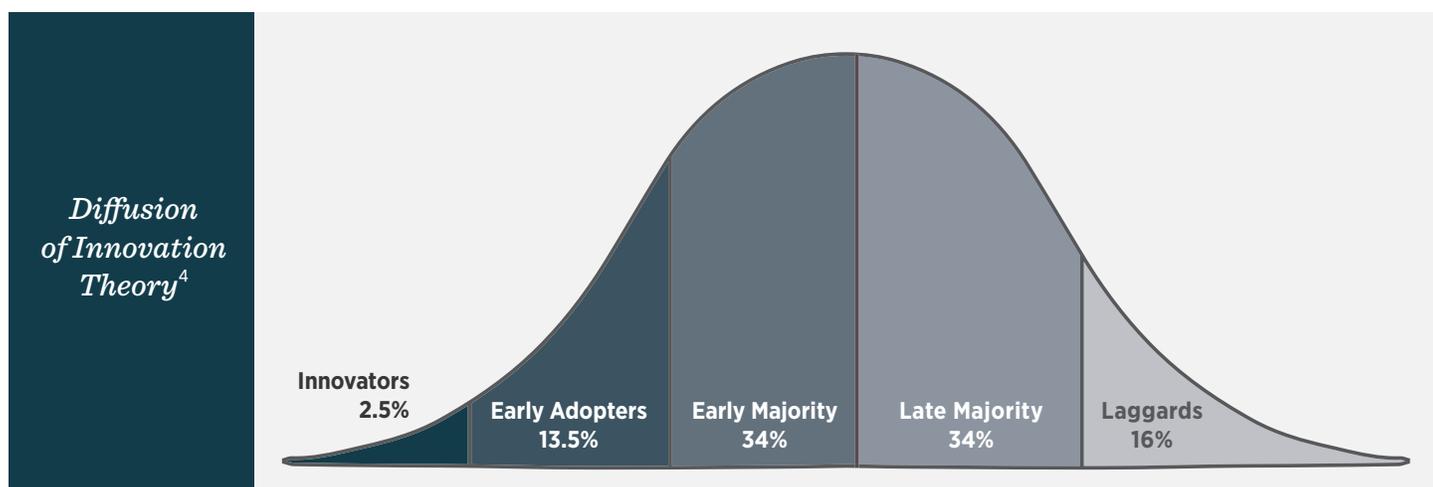
Incorporating behavior change science into CME design presents an opportunity for CME providers to deliver education to the right learners at the right time, increasing the likelihood for individual change. The following behavior change science theories and models present accessible options for CME providers to incorporate into course design.

Behavior change science theories and models are designed to understand, explain, and predict how and why individuals change behaviors. They are also:

- + Applied across a wide range of disciplines, including health care, education, technology, and more.
- + Used to design interventions, with the goal of altering attitudes and behaviors toward a desired outcome.
- + Showing promise in providing guidance in the design, implementation, and outcomes collection in CME; however a standard of practice for their incorporation has yet to be realized.

Diffusion of Innovation Theory

What is it? According to an overview by Boston University,⁴ the Diffusion of Innovation Theory explains how an “idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product.”



How the Diffusion of Innovation Theory can be used in CME design. Understanding how and when learner populations are likely to adopt a new idea or product can provide valuable insight for CME providers when marketing various courses. Presenting new courses or innovative education concepts to groups considered “early adopters” may offer CME providers an opportunity to collect earlier, valuable insight and feedback. However, those learners who fall into the “laggard” category may need more frequent reminders to complete the education or a longer waiting period to receive content on new ideas within the medical field.

The Transtheoretical Model

What is it? The Transtheoretical Model (TTM) focuses on the decision-making of the individual and operates on the assumption that change occurs continuously through a cyclical process. The TTM explains that individuals move through the following 5 stages of change: (1) precontemplation, (2) contemplation, (3) preparation, (4) action, and (5) maintenance.

Different intervention strategies are most effective at moving the individual to the next stage of change and subsequently through the model to maintenance—the ideal stage of behavior.

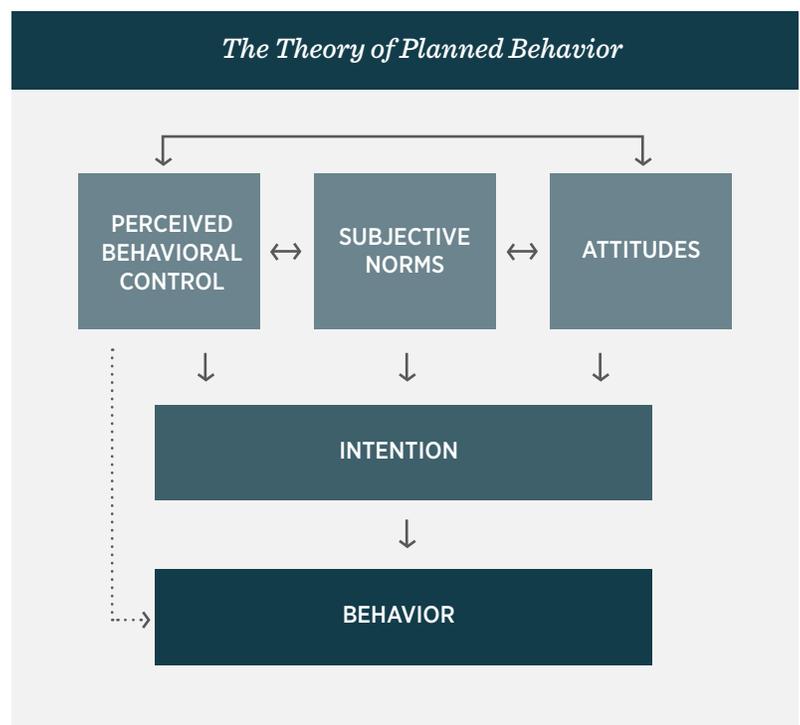


How the Transtheoretical Model can be used in CME design. The TTM provides an opportunity to segment CME learners, based on readiness to change behaviors. Ideally, CME providers could suggest and deliver courses to move learners through the stages of change.

The Theory of Planned Behavior

What is it? The Theory of Planned Behavior focuses on explaining behaviors over which people can exert self-control as well as the intent behind the behaviors. Behavioral intentions are influenced by the evaluation of the expected outcomes as well as the risks and benefits of that outcome.

How the Theory of Planned Behavior can be used in CME design. A 2016 study published in *BMC Medical Education* examined the application of the Theory of Planned Behavior in explaining general practitioners' use of an CME e-Learning format.⁵ The study used a questionnaire to understand the intent of a general practitioner to use the e-Learning software, detecting 66% of the general practitioners' intention variance. Using the Theory of Planned Behavior has potential to help CME providers understand the "why" and "why not" behind adoption of new-delivery CME instruments. Applying the Theory of Planned Behavior in this fashion has been used across the educational spectrum, such as to understand the intent behind college students' adoption of mobile applications for e-learning.⁶



Application of Behavior Change

Vindico Medical Education applies various behavior change models to address and evaluate identified educational needs. For example, if the underlying education gaps are due to beliefs and attitudes, the design of the CME program may be grounded in the TTM. Alternatively, if the gaps result from barriers like workflow, patient adherence, or conflicting evidence, then the Diffusion of Innovation Theory framework is used. Consistent in each course design is Vindico Medical Education's methodology of:

- a robust pre-assessment to ensure reflection, activate learning, and establish a baseline;
- a series of educational interventions design, based on the identified gaps and needs, and;
- a post-assessment, tailored to evaluate the specific changes in the behaviors targeted for modification.

References

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