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## Teachable moments for health behavior change: a concept analysis

Peter J. Lawson, MA, MPH<sup>1</sup> and Susan A. Flocke, PHD<sup>1,2,3</sup>

<sup>1</sup>Department of Family Medicine, Case Western Reserve University

<sup>2</sup>Department of Epidemiology & Biostatistics, Case Western Reserve University

<sup>3</sup>Case Comprehensive Cancer Center, Cleveland Ohio

### Abstract

**Objective**—“Teachable moments” have been proposed as events or circumstances which can lead individuals to positive behavior change. However, the essential elements of teachable moments have not been elucidated. Therefore, we undertook a comprehensive review of the literature to uncover common definitions and key elements of this phenomenon.

**Methods**—Using databases spanning social science and medical disciplines, all records containing the search term “teachable moment\*” were collected. Identified literature was then systematically reviewed and patterns were derived.

**Results**—Across disciplines, ‘teachable moment’ has been poorly developed both conceptually and operationally. Usage of the term falls into three categories: 1) “teachable moment” is synonymous with “opportunity” (81%); 2) a context that leads to a higher than expected behavior change is retrospectively labeled a ‘teachable moment’ (17%); 3) a phenomenon that involves a cueing event that prompts specific cognitive and emotional responses (2%).

**Conclusion**—The findings suggest that the teachable moment is not necessarily unpredictable or simply a convergence of situational factors that prompt behavior change but suggest the possible creation of a teachable moment through clinician-patient interaction.

**Practice Implications**—Clinician-patient interaction may be central to the creation of teachable moments for health behavior change.

### Keywords

teachable moment; health behavior; motivation; smoking cessation

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Corresponding author: Susan Flocke, Department of Family Medicine, Case Western Reserve University, 11001 Cedar Ave, Suite 306, Cleveland, OH 44106-7136. Phone 216 368-3887, Fax 216 368-4348, susan.flocke@case.edu.

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#### Conflict of interest

Neither author has any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, this work.

## 1. Introduction

A large body of health care research and practice has been focused on the various strategies and contexts by which healthy behaviors can be promoted and unhealthy behaviors can be discouraged. One such strategy is the “teachable moment.” Teachable moments have been advocated for promoting health behavior change in a variety of settings.(1–12) Often described as a particular event or set of circumstances which leads individuals to alter their health behavior positively, the teachable moment has been intuitively accepted as an important focus for both clinicians and researchers interested in promoting health and wellness.(7,10,13,14) However, empirical support for the effectiveness of health interventions based on the teachable moment is noticeably absent.(3) Moreover, the teachable moment for health behavior change is inadequately developed as a concept and is therefore unlikely to form a solid foundation for either research or practice.(15) Given the limitations of current health science research on the teachable moment concept, we cast a very broad net to examine potential insights from a range of disciplines. We systematically investigated the uses, descriptions and theoretical underpinnings of the teachable moment across a range of scholarly disciplines in order to explore the essential elements and evidence-base for this phenomenon.

## 2. Methods

Using databases covering a variety of scholarly fields, records containing the search term “teachable moment\*” in any of the records’ fields were collected. All years contained in the following databases were searched: AltHealth Watch, AltaReligion, Business Premier, CINAHL, Communication and Mass Media Complete, ERIC, Professional Development Collection, PsychInfo, PubMed, Social Sciences Index, Social Work Abstracts, SocIndex, and Sociological Abstracts. Articles from non-English journals were excluded. Results were stratified into numbered lists according to their source database, and a sample of 20% of each stratum was selected using a random number generator. For databases with fewer than 10 records, all records were included in the final sample. A total of 404 articles were identified; 93 unique references were randomly selected, and 81 articles were successfully retrieved for review. Each article was read and reviewed for all uses of the term “teachable moments.” An annotated bibliography was created for each reference that consisted of an abstract for the article, a description of how the term “teachable moment” was used within the article, and complete text and citation for all uses of the term “teachable moment.” Uses of the term ‘teachable moment’ were categorized through repeated reading, sorting and identification of common usage patterns. Emergent categories were discussed by the authors and final descriptive criteria were derived for each category. All articles were sorted into these categories by the first author, and were then independently re-sorted by the second author. A very high level of inter-rater reliability was achieved, kappa =0.92.

## 3. Results

While the use of the teachable moment concept is widespread across a variety of scholarly disciplines and can be found frequently in popular media, its usage is far from standardized. Our extensive review of the literature revealed three categories into which the majority of usages fell. Table 1 provides a description of each category, the frequency of use and examples of each category type. In the first category, the term teachable moment is used more or less synonymously with the term opportunity. Of the 81 articles retrieved and reviewed, 66 fell into this category.(1,2,4,6,8,10,11,14,16–45) (46–73) In the second category, the teachable moment is suggested as a particular context or event that is associated with a greater likelihood of the preferred outcome. Fourteen of the 81 articles reviewed describe the teachable moment in this way.(3,5,7,9,12,13,74–81) The third and least frequent usage suggests essential elements of the teachable moment and further offers theoretical models for its behavior changing effects.

Only one article (82) discussed the teachable moment to this extent. In order to locate additional examples of this type of usage all 85 references from the PubMed database were reviewed, as were the references cited from all previously reviewed articles; one additional reference (83) was identified and included in this category.

### 3.1 Teachable Moment is an Unpredictable Opportunity

In the first usage, the term “teachable moment” is used to mean “opportunity,” and the concept is treated as a self-evident truism bordering on cliché or tautology. Here the teachable moment is an opportune moment for instruction and/or learning, but the psychological, or social interactional mechanisms by which it can be differentiated from any other moment are not acknowledged. In sources where this type of colloquial usage was prominent, a number of key patterns were noted. In many usages of this type, the teachable moment is a serendipitous event or constellation of factors that are regrettably unpredictable and therefore cannot be counted upon to facilitate learning or teaching.(44)

The spontaneity of teachable moments is also highlighted in discussions which draw attention to educators’ and counselors’ need for preparation or support to exploit the teachable moment effectively. Stubblefield suggests that, for a teachable moment to be successfully utilized, additional assistance or resources may be required, and in the absence of appropriate assistance, the teachable moment may not lead to a successful outcome. Stubblefield (69) states “For a person to move forward at a teachable moment requires a support system” (p. 240). Similarly, Fabiano suggests preparation, supervision and support for peer-health educators so that they can “deal effectively with these unexpected and fortuitous ‘teachable moments’ when their peers seek them out for assessment of risk for HIV” (p. 297).(29) In this example, both the spontaneity of the teachable moment and its need for support are articulated, although the nature of the support is not clear.

Not surprisingly, a number of authors suggest preparing teachers and other professionals to capitalize on the surprising situation of the teachable moment when it arises. Baker suggests that preparing faculty in business management programs to open dialog more ably around potentially challenging topics can allow them to take advantage of teachable moments when they occur in the classroom.(16) Brick argues for training teachers to respond effectively to the questions and behaviors of students that create teachable moments in classroom.(4) Other authors suggest that the unpredictability of the teachable moment is something that can be overcome through the implementation of specific curricular activities. In an essay on health education in the classroom, Kittleson describes a suicide prevention program that seeks to create a teachable moment in the classroom.(44) Nagoshi argues for the use of standardized patients in the training of physicians stating, “[Standardized patients] allow ‘teachable moments’ to be created, rather than waited for” (p. 323).(53) These authors implicitly construct the teachable moment as an effective technique for teaching and learning by arguing that *it could and should actively be created*. However, the mechanisms or ways in which a teachable moment could be actively created are not well articulated.

### 3.2 Teachable Moments as Specific Events or Contexts

In a second usage common in our literature search, the teachable moment is a specific event or context marked by an increased capacity for some sort of change. Fonarow(8) asserts that hospitalization for a cardiac event is a teachable moment that physicians should use to begin statin therapy. Carlos and Fendrick(5) argue that currently accepted screening procedures are teachable moments that can be used as vehicles to promote other, less-accepted, screening procedures. Similarly, Esler and Bock(6) assert that patients visiting the emergency department for non-cardiac chest pain are more likely to be motivated to make health behavior changes for stress reduction “during key times when their attention is focused on their health” (p. 267).

Often, this second type of teachable moment is identified as a deviation from an expected outcome. Glasgow et al(13) demonstrate that smoking cessation occurs at a statistically higher rate among those smokers who had been hospitalized than would be predicted among the general population. From this, the authors conclude “hospitalization presents a teachable moment and an opportune setting in which to prompt cessation” (p. 32).(13)

In many cases in which deviations are presented as evidence for possible teachable moments, authors speculate about specific aspects of the context that may produce the observed anomaly. Flocke and Stange(7) assert that teachable moments may occur during visits with primary care doctors when a potential health behavior change is made more salient by a related illness. They report that patients are twice as likely to recall health behavior advice in the presence of a behavior related illness.(7) This is also suggested by Glasgow who proposes that hospitalization creates a temporary disruption in smoking behavior and represents a “window of opportunity” (p. 29) for deploying interventions that promote permanent cessation.(13) After an analysis of sustained weight loss, Gorin et al. conclude that medical triggers might enhance motivation to succeed in weight loss by increasing the saliency of the risks posed by obesity. (9) While all of the articles in this category suggested factors that may indeed be contributors to the phenomenon of a teachable moment, none explicitly tested or provided detailed discussions of those factors.

### 3.3 Modeling the Teachable Moment

The third and least frequent usage attempts to specify essential elements of the teachable moment and suggest theoretical models for its effects on behavior change. Only one article in our random sample contained any significant discussion of the mechanisms by which the teachable moment might have an impact on behavior or learning.(82) A more exhaustive search of all other references in our sample uncovered one additional article.(83) McBride and Ostroff argue that cancer diagnosis and treatment can be an important teachable moment for smoking cessation for both patients with cancer and their families.(82) In a more complete elaboration of their model of a teachable moment, McBride, Emmons and Lipkus assert that a cueing event is considered a teachable moment for smoking cessation insofar as it a) increases perceptions of risk and positive or negative outcome expectations, b) produces a strong emotional response, and c) causes a redefinition of an individual’s self-concept or social role.(83) This conception of the teachable moment relies significantly on the Health Belief Model(84) which emphasizes ‘cues to action,’ which influence the perceived threat of a negative outcome and may prompt an alteration of health behavior. Furthermore, the model for the teachable moment proposed by McBride, Emmons and Lipkus(85) also integrates aspects of Social Cognitive Theory(86) by focusing attention on the ways teachable moments might alter an individual’s expectancies and judgments about the outcome of a particular behavior on their health. They also suggest that events with strong emotional components (negative or positive) will result in those events becoming more significant and meaningful to an individual and will therefore be more likely to be teachable moments for health behavior change. Finally, the authors argue that teachable moments are more likely to arise when life events alter an individual’s self-concept or when individuals experience a change in their social role.(85) These new normative role obligations may be incompatible with current behavior. Thus, McBride et al. point to a cueing event with particular characteristics as the essential element of a teachable moment.(85)

## 4. Discussion and Conclusion

### 4.1 Discussion

Theorizing those aspects of the teachable moment that may cause behavior change is an important step in developing the utility of the teachable moment for research and intervention. Yet more is required. Barnett et al. (3) argue that there is insufficient evidence to determine

whether or not particular events promote greater change among patients, whether interventions undertaken at those times produce greater change, or whether interventions implemented at such times would be as effective if undertaken at some other time. These empirical questions about the relationship between triggering events and possible outcomes remain uninvestigated. Despite a roadmap of recommendations for the study of the cognitive concepts proposed by the teachable moment model of McBride et al.,(85) little work has been reported.(87) Both observational and interventional research could advance our understanding of the teachable moment phenomenon and the impact it has on prompting behavior change.

The primary insight gained from this cross-disciplinary examination of literature is that the teachable moment phenomenon is not necessarily unpredictable or a simple convergence of contextual factors that prompt behavior change. A teachable moment could be created. More importantly, a teachable moment could be viewed as an event that is co-created through interaction. This is particularly relevant for dynamic and socially constructed interactions like medical encounters where the contents of that encounter ultimately depend on clinician and patient communication actions.(88) Moreover, these communication actions are shaped jointly by the goals, perceptions, knowledge and emotions of both interactants in response to each other.(88–91)

Conceptualizing a teachable moment as something that is created through interaction opens several new avenues for investigation. Prior work has focused on the influence of the sentinel event on patient perceptions or change. An interaction-based framework allows for the clinician's perceptions, cognitions and motivations to be influenced by cues to action, as well. Thus, the components of the Health Belief Model: a cue to action, an increase in the perceived threat of disease for the patient, a belief in the significant benefit of behavior change for the patient, or a perception that barriers to change may be low for the patient, can also prompt role-specific action in the form of communication from the clinician. Figure 1 depicts an elaboration of the Health Belief Model which proposes that cues to action, perceived threat and benefit, and communication action can affect and be affected by both clinician and patient. Within this framework, communication actions such as: a clinician's suggestion of a health behavior change as an effective therapy for a specific condition, the presentation of a worrisome symptom or test result potentially related to a patient's unhealthy behavior, or a patient's expression of difficulty in making or sustaining a health behavior change, could shape the perception of threat, benefit, or barriers to change for both the patient and clinician. Furthermore, this proposed framework highlights the potential for the co-creation of a teachable moment through clinician-patient communication as cues to action are generated and acted upon interactively.

For example, a patient presenting with a severe flare-up of asthma could increase the clinician's perception of the threat posed by the patient's tobacco smoking. The clinician may communicate the potential lethality of severe asthma for the patient thereby raising the patient's perception of the threat. Additionally, the clinician may highlight the potential benefit of smoking cessation for recovering from this acute episode and for avoiding future episodes. Seen this way, the relationship of perceived threat and benefit may affect how the health behavior is portrayed by the clinician and thus may affect the content and the intensity of persuasion for change that occurs during subsequent discussions of health behavior change. The frequency and types of cues present during typical encounters, if and how those cues are used by clinicians and patients to prompt discussion of health behavior change, and the effect of this communication on the likelihood of patient health behavior change are important areas for future research to illuminate the teachable moment.

Finally, it is important to recognize that clinician-patient communication during medical encounters is not co-constructed solely within an isolated, interpersonal interaction. Other

systemic features such as the particulars of the medical practice setting, the organization of the local, regional and national health care system and the broad range of cultural experiences and expectations of the interactants will shape the communication as well.(88) Thus, examining the communication actions of clinicians and patients while attending to the salient contextual features that might impede or facilitate the construction of a teachable moment during a medical encounter is a worthwhile goal.

#### 4.2 Conclusion

Though widely used across a variety of scholarly disciplines, the concept of the teachable moment remains largely untested and under-theorized. Research to date has predominately focused on the retrospective identification of circumstances associated with an increased likelihood of health behavior change. Examining how a teachable moment is created interactionally is ripe for investigation and likely to advance understanding of this phenomenon.

#### 4.3 Practice Implications

Next steps should focus on the development of a model of the communication elements of a teachable moment for health behavior change. Understanding phenomena created through interaction and communication is best accomplished by analyzing audio and video-recorded clinician-patient interactions and pairing these analyses with data on subsequent patient outcomes. Although time and resource intensive, analyses of clinician-patient communication data could elucidate how a teachable moment occurs naturally in interaction and identify the contextual factors that enhance or impede the approach. Development of an interaction-based model could guide further research evaluating the feasibility of the teachable moment across practice settings and the effect on behavior change outcomes, and could guide clinician training.

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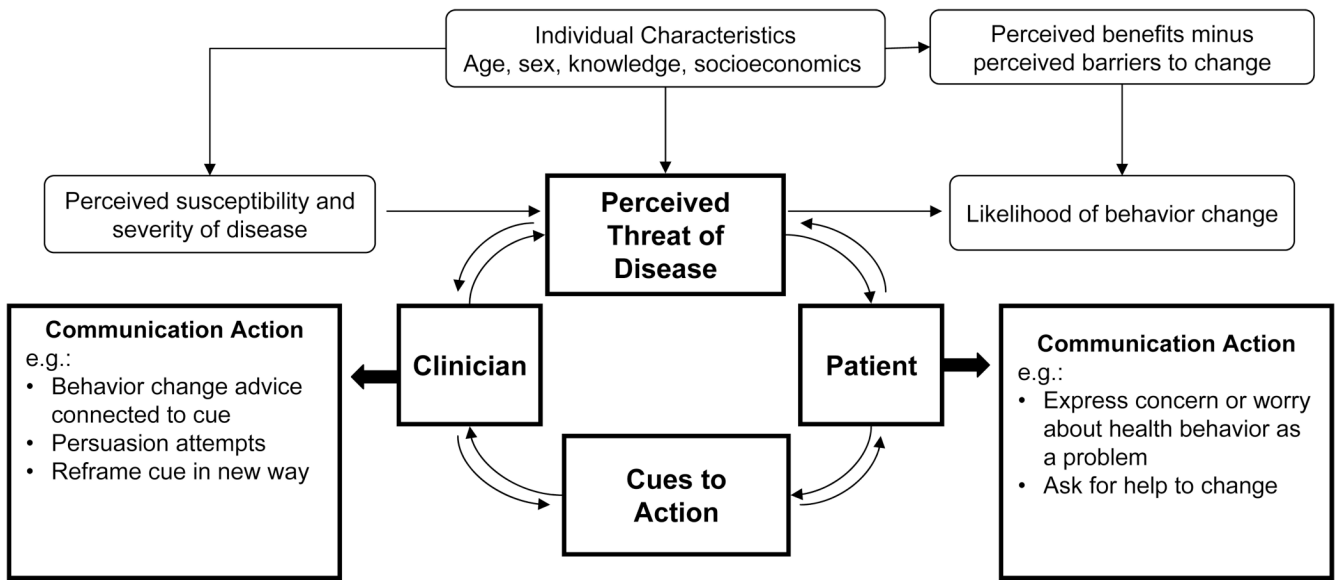
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**Figure 1.** Elaboration of the Health Belief Model: A Dynamic Interaction of Cues to Action and Perceived Threat during Clinician and Patient Interaction

**Table 1**  
Categories of usage for the term “teachable moment”

Category Definition	n (%)	Example
Category 1 Teachable moment is an opportunity		
The teachable moment is used to mean ‘opportunity’ or a particularly useful time to facilitate some sort of change. The concept use borders on self-evident truism.	66 (81%)	<p>“Here is your teachable moment—your opportunity to talk about the importance of parental role modeling as a tool for teaching children and the potential he and his wife have for sustaining a life-altering head injury” (Lassman 2001:172).</p> <p>“So, the hoax offers a teachable moment—a chance to remind readers, viewers and listeners that not all information is journalism” (Cross 2005:18).</p>
Category 2 Teachable moment as specific events or contexts		
The teachable moment is a particularly useful time to facilitate some sort of change. Evidence is proffered whereby a teachable moment is retrospectively inferred because of a greater rate of behavior change associated with a context or situation. Mechanisms by which change may be enhanced during that time might be described. It is often suggested as the time to implement some form of intervention.	14 (17%)	<p>“Stone and colleagues demonstrated that coupling education about a “less effective” intervention while a patient underwent a more accepted one produced positive effects. So acceptance of a less desired, yet proved, intervention may be improved if coupled with education around a better accepted one, an event often referred to as a ‘teachable moment’” (Carlos et al 2005:221).</p> <p>“These data suggest that providing health behavior advice during an illness visit for which a diagnosis relevant to the target behavior is present is associated with a 2- to 4-fold increase in the recall of the discussion, independent of the duration of the advice. Thus, choosing ‘teachable moments’ that link health behavior to current illnesses takes advantage of a unique opportunity for linking illness care with promoting healthy behavior” (Flocke and Stange 2004:346).</p>
Category 3 Modeling the teachable moment		
The teachable moment is a particularly useful time to facilitate some sort of change. This group goes beyond evidence provided in Category 2 and presents a theory of how the teachable moment operates to motivate an individual. Hypotheses are proposed, but are not tested.	2 (2%)	<p>“Cancer diagnosis and the cascade of associated events and interactions with the healthcare system have been described as “teachable moments” (TMs) for smoking cessation. Our work suggests that whether a cueing event such as a cancer diagnosis is significant enough to be a TM for smoking cessation depends on the extent to which the event: (1) increases perceptions of personal risk and related expectations of positive or negative outcomes, (2) prompts a strong emotional response, and (3) redefines self-concept or social role” (McBride and Ostroff 2003:330).</p>