



Universiteit
Leiden

The Netherlands

Embracing a new beginning: understanding the teachable window for lifestyle change

Brust, M.

Citation

Brust, M. (2024, September 19). *Embracing a new beginning: understanding the teachable window for lifestyle change*. Retrieved from <https://hdl.handle.net/1887/4092618>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4092618>

Note: To cite this publication please use the final published version (if applicable).



7

English summary

Following certain events or experiences in life, people may suddenly realize the detrimental consequences of their unhealthy behaviors and become more aware of the urgency of adopting a healthier lifestyle. This, in turn, enhances their intention to make positive changes in their lifestyle. The term “teachable moment” describes such periods of time that increase someone’s openness to lifestyle advice and lifestyle change. Teachable moments can arise after important life or health events, such as hospitalization for an acute health event, pregnancy, or the diagnosis of a chronic disease of someone self or in a loved one. As a result of this greater receptiveness, interventions centered around important life or health events have demonstrated great potential.

Although the concept of teachable moments is not new, research on life events as teachable moments was relatively limited and primarily focused on lung cancer as a teachable moment for quitting smoking. Prior to our research, it was unclear whether other life events could similarly stimulate intentions for lifestyle changes. Additionally, an important question for the effective utilization of teachable moments in healthcare was *how* certain events could enhance motivation for behavior change. According to a conceptual framework of teachable moments developed by Colleen McBride and colleagues (2003), the extent to which a person experiences a life event will as a teachable moment is determined by 1) the extent to which the event increases people’s perceived risk and expectations about the consequences of unhealthy behaviors, 2) the extent to which an event elicits a strong emotional or affective response, and 3) the extent to which an event causes changes in the self-concept, identity, or social role of an individual. This framework served as a theoretical starting point of our research on teachable moments.

In this dissertation, we aimed to investigate the potential and the underlying mechanism of life events as teachable moments. Specifically, **research question 1** was: Can life events, particularly acute health events related to cardiovascular diseases and societal crises such as the COVID-19 pandemic, serve as teachable moments that suddenly increase individuals’ motivation to improve health behavior? **Research question 2** was: What are the underlying psychosocial mechanisms of teachable moments? Are increased risk perception, emotional responses, and changes in one’s self-concept indeed crucial factors, as the conceptual framework on teachable moments suggests? How do they interact, and to what extent can other psychosocial factors also play an important role as active mechanisms of teachable moments? Finally, **research question 3** was: How should potential teachable moments be utilized within lifestyle support around acute life events? In this dissertation, we specifically use acute events related to cardiovascular disease as a “case study” to address the research questions, as they are often suggested as potential teachable moments but had not yet been investigated as such.

MAIN FINDINGS

In **Chapter 2**, the first and second research question were addressed through a cross-sectional design with an online survey. The aim of this chapter was to explore whether the start of the COVID-19 pandemic was perceived as a teachable moment among Dutch cardiovascular disease patients, i.e., a group high at risk for adverse health outcomes of a COVID-19 infection. Additionally, we determined whether enhanced intentions to change health behaviors due to the pandemic were associated with risk perception, affective impact, and changes in self-concept, thereby verifying the conceptual framework of McBride and colleagues (2003). The results showed that cardiac patients demonstrated a willingness to enhance health behaviors due to the COVID-19 pandemic, particularly in terms of their overall lifestyle, physical activity, and diet. Intentions to change were mainly associated with changes in the patient's self-concept, namely, the extent to which patients felt that the corona crisis had changed them as a person and their outlook on life. To a lesser extent, the intentions to change behavior were associated with experiencing an emotional impact of the pandemic. These findings suggest that societal crises such as the COVID-19 pandemic can indeed evoke a teachable moment, primarily driven by changes in self-concept. Since not all factors of the conceptual teachable moment framework were associated with intentions to change behavior, we concluded that further research into other psychosocial factors that may influence life events as teachable moments is also necessary.

In **Chapter 3** of this dissertation, we employed a qualitative approach to address the first and second research questions. We used an Interpretative Phenomenological Analysis to explore how cardiac patients made sense of their myocardial infarction in relation to their lifestyle, and which processes of sensemaking were related to experiencing an increased intention to change their lifestyle. The results showed that many of the patients indeed regarded their myocardial infarction as a life-changing experience that motivated them to pursue a healthier lifestyle. In the months following the myocardial infarction, these patients actively contemplated changes in their health behavior, implemented behavioral changes in their lives, and sought ways to optimize their lifestyle. Since this period extended over a longer duration after the myocardial infarction, the term "*teachable window*" described the phenomenon better than '*teachable moment*'. Several processes of sensemaking were encountered that seemed important for experiencing a teachable window, including interpreting an event in terms of behavior causes and consequences, perceiving a link between lifestyle and health, becoming aware of their own vulnerability if continuing unhealthy behaviors, and also anticipating potential future regret if unhealthy behavior is continued, striving to regain autonomy and control over life, experiencing

the heart attack as an emotional event, receiving medication and desiring to reduce medication intake by believing that this can be achieved earlier through an improved lifestyle, and reflecting on identity, goals in life, and social roles in relation to health scares and personal health behavior.

Due to the lack of validated scales to investigate teachable moments, we observed a wide variation in the approaches used in previous research. Therefore, in **Chapter 4**, we validated two newly developed questionnaires: the Cardiac Teachable Moment (CardiacTM) scale, which measures the characteristics of cardiac events as teachable moments, and the Cardiac Lifestyle Change Intention (CardiacLCI) scale, which measures whether an acute cardiac event stimulates the intention for lifestyle change. Both scales demonstrated good internal reliability and sufficient content, construct (factorial), and convergent validity. The CardiacTM scale consisted of six internally consistent factors (affective impact, perceived risk of cardiovascular disease, changed self-concept, cardiovascular disease group identity, perceived risk of noncommunicable disease, anticipated regret). The CardiacLCI scale consisted of two internally consistent factors (event-related lifestyle change and general healthy lifestyle). Both scales can be used in future research to better understand if, when, and how life events can serve as teachable moments (research question 1) and which psychosocial factors play a role (research question 2). In practice, healthcare providers can use adapted versions of the CardiacLCI scale to assess the extent to which their patients experience a potential teachable window and are therefore open to behavioral advice. Adapted versions of the CardiacTM scale can be used to facilitate discussions about psychosocial themes related to a teachable window, which may enhance the patient's motivation during conversations between healthcare providers and patients to initiate a healthier lifestyle.

In **Chapter 5**, the third research question was addressed, which was related to the practical utilization of teachable windows in healthcare. The aim of this mixed-methods study was to investigate the perspective of cardiac patients regarding the timing and approach of providing lifestyle advice after hospitalization due to an acute cardiac event. We found that patients were more receptive to behavioral advice throughout the entire care trajectory (during hospitalization, after hospital discharge, during follow-up appointments at the hospital, and during cardiac rehabilitation). Patients who received lifestyle advice during their care trajectory viewed this positively and showed a higher intention to change their lifestyle, especially when advice was given during multiple phases of the care trajectory. The teachable window after an acute cardiac event thus offers a unique opportunity to provide patient-centered lifestyle advice. Patients preferred advice that is feasible and empathetic, and that is tailored to their needs, values, and perceptions of the causes of their cardiovascular condition.

CONCLUSION AND IMPLICATIONS

Certain events in life can motivate someone to change their lifestyle and be more receptive to lifestyle advice. These events may relate to one's personal health, such as acute heart problems, but also broader societal crises, such as the COVID-19 pandemic. Because this increased motivation and receptiveness typically persist in the months following an event, we concluded that certain events can stimulate a "teachable window" for lifestyle change. We encountered several processes of sensemaking that seemed important for experiencing such a teachable window. For instance, we found that elements of McBride and colleagues' (2003) conceptual teachable moment framework indeed play a role in behavior change, such as changes in self-concept, identity, and social roles, and experiencing an event as emotional. Risk perception seemed to play a role, although particularly in terms of awareness of one's vulnerability when continuing unhealthy behaviors. However, these were not the only important psychological factors. Other key processes include interpreting an event in terms of behavior causes and consequences, wanting to avoid future regret when unhealthy behaviors persist, and striving to regain autonomy over one's life after a life event through positive lifestyle changes.

The conclusions of this dissertation underscore an important window of opportunity to provide continuous lifestyle support during and after life-changing events. Moreover, it provides several implications for practice. First, it highlights an important role of healthcare providers during teachable windows, as they frequently interact with patients during important life events and because patients consider lifestyle advice, particularly when given by specialists, as impactful. Second, it emphasizes an important role of the timing of advice, which ideally initiates immediately following an event, and is continued and repeated in the months afterwards. Third, it provides recommendations regarding the manner of advice, which should ideally be based on the findings related to sensemaking processes, is both practical and empathetic, and should be tailored to individuals' needs, context, values, and perceptions of the causes of their cardiovascular disease.

REFERENCE

McBride CM, Emmons KM, Lipkus IM. Understanding the potential of teachable moments: the case of smoking cessation. *Health Educ Res.* 2003;18(2):156-70.