

The Role of Affective Forecasting in Nutritional Health Outcomes and its Application to Behavior Change

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Background

Nutrition is a large contributor to overall health and examining cognition and emotions surrounding food can be essential to understanding the way we behave regarding nutrition.

Affective forecasting error and impact bias can affect the **intensity** and **duration** of emotions that patients predict they will encounter after an event, such as diet change.

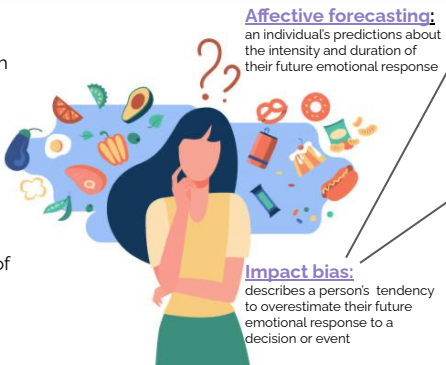


Image: <https://www.istockphoto.com/illustrations/people-eating>

Affective forecasting: an individual's predictions about the intensity and duration of their future emotional response

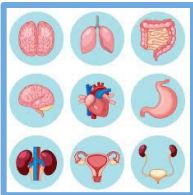
Focalism: tendency to focus narrowly on what will negatively change in life and not on what circumstances may moderate the event's emotional intensity (Wilson & Gilbert, 2000)

Adaptation neglect: people fail to accurately predict their ability to adapt after difficult events, as they do not account for their ability to cope when predicting future emotional reactions (Halpern & Arnold, 2008; Dillard et al., 2020).

Impact bias: describes a person's tendency to overestimate their future emotional response to a decision or event

Significance

Examining affective forecasting error in **dietary decision-making** is important to the understanding of the cognitive process involved in making nutritional choices and **changing eating behavior**. It is essential that providers understand how patients think about their future emotional response to diet or lifestyle change because diet change may be **vital to patient health**, especially in cases of chronic disease or risk of **chronic disease**.



Diet is correlated to many noncommunicable disease states such as cardiovascular disease, type 2 diabetes, and cancer (World Health Organization, 2021)

More than 1 in 3 adults in the US have **pre-diabetes** and the number of adults with diagnosed diabetes has nearly doubled in the last 2 decades (CDC, 2021).

9 in 10 Americans consume excess amounts of sodium which is related to increased risk of high blood pressure and heart disease (CDC, 2021)

Out of all the factors examined in the 125 cases of congestive heart failure hospitalizations, the most common precipitating factor was **patient non-compliance with diet** or drug therapy (Joshi et al., 1999).

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Health Belief Model of Behavior

The **Health Belief Model (HBM)** is a theory of behavior that attempts to explain why people will take action to prevent or to control disease conditions

The constructs of this model are perceived **susceptibility**, perceived **severity**, perceived **benefits**, perceived **barriers**, and **self-efficacy**.

Perceived Susceptibility

A person must feel susceptible to contracting a condition

Perceived Severity

A person must feel that contracting this condition has consequences that are severe enough to act

Perceived Benefits

A person must believe that taking a certain action to reduce the perceived threat of the illness will benefit them

Perceived Barriers

A person then must evaluate perceived barriers to taking action, and the combined levels of perceived susceptibility and severity must be able to outweigh the perceived barriers.

Self-Efficacy

A person must believe that they can successfully execute the behavior required to produce the desired outcome, also known as having high self-efficacy

(Champion & Skinner, 2008)

In a critical review of HBM studies, **perceived barriers** were the most powerful single predictor of adopting health behavior change across all studies and behaviors (Champion & Skinner, 2008).

This perceived barrier aspect of the HBM could be significantly influenced by affective forecasting, as impact bias error may distort perceived psychological costs of the advised behavior (in this case diet change/nutritional intervention).

Image: <https://www.vecteezy.com/vector-art/430087-healthy-food-vector>

Reducing Patient Impact Bias

Reducing impact bias influencing perceived barriers could help patients make **healthier decisions** for themselves, including changing their diet to manage or prevent non-communicable disease.

Reducing Focalism pertaining to diet change would decrease impact bias for perceived barriers to diet change, allowing patients to make a healthier decision for themselves

Possible interventions: discussion with provider about what can remain the same after diet change, diary writing/listing things that patient can still enjoy within the diet

Reducing Adaptation Neglect must also be addressed to effectively reduce affective forecasting error surrounding diet change.

Possible interventions: introduce narrative, virtual stories/social groups, discuss past coping mechanisms with provider



Image: <https://www.vecteezy.com/vector-art/430087-healthy-food-vector>

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