Behavioral Economics and Nutrition

What We Know

› Behavioral economics is an analytical method that uses both psychological models used in behaviorism and decision models used in economics to understand decision-making by individuals. The two types of models provide insight into how an individual’s perceptual biases, memory or thought processes, environments, situations, and emotions influence his or her purchasing decisions.\(^4\,\,5\,\,7\) Behavioral economics with regard to nutrition can be used to better understand what influences an individual to make good choices relative to the type and quantity of food he or she consumes.\(^5\) Behavioral economics is increasingly being studied as an approach to help alleviate public health problems such as obesity\(^5\,\,10\)

• Some ideas associated with behavioral economics include:
  – Reactance, which suggests that when individuals feel coerced or forced into doing something, they typically rebel
  – Self-attribution, in which when individuals feel they have influence over their own decisions they are more likely to enjoy those decisions
  – Choice architecture is designing the presentation of choices to influence how an individual makes choices.\(^8\) When choice architecture is used, individuals are offered a choice of options and then allowed to make their own decision\(^4\)
  – Rational choice theory is the assumption that choices made by an individual are usually independent of other choices that are not relevant.\(^1\) Therefore, the presence or absence of unselected choices should not impact a rational decision-maker’s ability to make a choice.\(^1\) Researchers have demonstrated, however, that irrelevant choices or trigger foods on a menu do have an impact and can influence the choice of unhealthy items by school children\(^1\)
  – Libertarian paternalism is the notion that private and public institutions should nudge individuals to make choices that are in their best interest without restricting the individual’s ability to make his or her own choices.\(^11\) This principle can be used in the development of public health interventions to improve individuals’ food choices; for instance, it has been used in a high school setting to encourage students to eat more fruits and vegetables\(^2\)

› Behavioral economics is proving effective as a strategy for encouraging better food choices among children\(^5\,\,7\,\,10\)

• Strategies used in school cafeterias that have resulted in children making healthier food choices include:\(^3\,\,4\,\,5\,\,6\,\,8\,\,9\,\,12\)
  – Using variable sizes of plates and bowls (i.e., larger to encourage consumption of a particular item and smaller to encourage lesser intake), which may determine the total amount of food an individual consumes and help to manage portion control
  – Placing healthy items more prominently, at eye level or first in a line, for example, which may lead to individuals choosing those items
  – Verbally prompting individuals to make the healthier choice by asking if they want the more nutritious item over less nutritious options
– Requiring students to commit to a food choice ahead of time rather than selecting at the time of a meal
– Using cash versus paying with credit or the use of a prepaid account
– Developing attractive descriptive names for foods. In a study conducted in two elementary schools in New York, researchers found that describing vegetables in an attractive manner made a significant difference in the students’ choices of vegetables. These results were sustained over a 2-month period.[12]
– Using pictures of vegetables in school lunch-tray compartments to encourage consumption of vegetables
– Using incentives in combination with educational messaging

• Strategies that have been proposed to promote healthy eating include helping individuals to alter their default options, disseminating simple yet meaningful nutrition information, carefully constructing and framing public health messages, and minimizing unintended consequences.[10]

– Altering default options refers to efforts to get individuals to move from their habitual choices, which are often made without thinking
– Disseminating simple yet meaningful information entails, for example, using graphics, pictorials, and other symbols rather than numbers to promote healthy eating. Research indicates that people often are challenged by having to use numbers to make sense of information.[10]
– Carefully constructing and framing messages refers to intentionally choosing words and phrases that resonate positively with the intended audience so that persons are prompted to take action rather than inaction. For example, the language of the childhood obesity campaign initiated by former first lady Michelle Obama encourages participants to move more rather than to eat less.[10]

– Minimizing unintended consequences means developing strategies that will lessen an individual’s chance of substituting another poor behavior unintentionally when one poor behavior choice is stopped. For example, an individual might eat more of a food because it is labeled low fat; in this case, the individual has stopped the behavior of consuming a higher-fat food but replaced it with the behavior of consuming a larger than normal portion size of the low-fat food. Unintended consequences of making a behavior change can also result in the “peanuts effect,” which occurs when individuals underestimate the cumulative effect of a new behavior substituted for an old behavior. For example, an individual might consume more of a small pre-portioned food because it does not seem that the small pre-portioned foods have a real effect on total caloric intake.

What We Can Do

› Learn about behavioral economics so you can accurately assess your patients’ personal characteristics and health education needs and use appropriate strategies to influence healthy food choices; share this information with your colleagues

Related Guidelines

› There are no guidelines available for this topic.

Note

› Recent review of the literature has found no updated research evidence on this topic since previous publication on November 18, 2016.
References


