Introduction

Good and safe nutrition are closely connected with good health. Consumers have various concerns about the influence of food on their health, ranging from food safety issues (e.g., additives and foodborne illnesses) and concerns related to longer term health risks because of unhealthy food choices (e.g., overweight, micronutrient deficiency, chronic heart diseases, and cancer). As a consequence, the provision of information about diet, health, and nutrition is increasing. Information is rapidly spread by the (mass) media, which includes social media. But it also includes communication developed to reach consumers at the exact place where they make their food decisions, for example, through food labels, at the supermarket or in catering outlets.

Communication regarding diet, health, and nutrition is about the provision of knowledge and skills so that consumers are better able to select and consume healthy and safe foods. Various barriers to effective communication about diet, health, and nutrition can be identified. Before people can process information they need to be aware of it, either because they are exposed to it or actively search for it. This requires a certain degree of motivation. Even if consumers process this information, it may not subsequently lead to changes in behavior. Hence, communicators in the area of nutrition, diet, and health deal with a variety of issues, ranging from reaching the right target population to making sure that the message is understood and implemented in daily life. In this chapter some relevant consumer behavior issues facing the communication of risk in the field of nutrition and diet will be examined.

Consumer Awareness and Motivation to Process Information

Information about diet, health, and nutrition can only influence consumers if they are exposed to it. Exposure can be intentional when consumers search for information relevant to their goal or problem. Accidental exposure occurs when consumers unexpectedly encounter the information. Attention is influenced by both environmental factors, and those related to the consumer, such as motivational and time constraints. The location of information on a food package, or the novelty of the information presented, potentially influence the likelihood that a message becomes salient and captures a consumer’s attention.

Nutrition education has gradually shifted to include food retailers. As a consequence, consumers are confronted with an
extremely rich information environment with competing choices being made available. Consumers are often too rushed to intentionally search for all types of information in retail environments such as supermarkets which are noisy and provide many other types of information. People are more likely to look for information when they have a specific health problem (e.g., trying to lose weight or food allergies). Owing to cognitive limitations in the extent to which multiple messages can be simultaneously processed, consumer attention is focused on what matters the most to them, and so diet, health, and nutrition information potentially competes with information about price, brand, convenience, and taste.

Research has suggested that health is reported by consumers to be a key choice criterion when making food choices. However, even when consumers are aware of health information associated with particular foods, they are not necessarily motivated to spend energy and time to process this information and adapt their behavior if needed. In persuading individuals to perform or refrain from certain behaviors, the emphasis has typically been on developing uniform education materials for the general population. Although these materials may provide accurate and understandable information, they may not be processed by individuals and hence be less likely to motivate behavior changes. Information processing is influenced by the level at which an individual is involved in its content, and considers the information to be personally relevant. For example, ‘optimistic bias’ (or ‘unrealistic optimism’) is where an individual judges that negative events are less likely to happen to the person compared to the risks to which an average member of society or comparative individual within that society is exposed. Optimistic bias has been observed for a range of food related hazards, but tends to be more evident for ‘lifestyle’ hazards (e.g., alcohol and fat intake) compared to hazards of ‘technological’ origin (e.g., pesticides and genetic modification). For these lifestyle risks, consumers’ optimistic bias may stem from the ‘illusion of control’ whereby consumers are confident that they are able to prevent the risk from occurring, or the ‘illusion of knowledge’ where they perceive they know more about the risk than others. Optimistic bias may hinder educational efforts to motivate consumers to change risky behaviors, because they perceive that information is directed towards more vulnerable and less knowledgeable members of society.

Attentional biases influence what kind of information people are likely to focus on, and – in particular – what kind of information they tend to neglect. In the research field of persuasion, some approaches to improving compliance with ‘good’ behaviors have been identified. For example, people naturally like to behave in line with others. The likelihood that people will adopt a good behavior can be increased by providing them with the information that other people also show similar behavior. If the aim of information provision is to persuade people to eat, for example, more fruits and vegetables, it would be helpful to stress the number of people who are already doing so or to supply a testimonial from someone who eats fruits and vegetables. It also suggests that, if one wants to persuade people not to do something, for example, eating too much saturated fat, one should not focus on the number of people who are engaging in such bad behavior. In this case, the message that people will remember is that others are also acting badly (i.e., eating too much saturated fat) and thus it is normal to do the same. Research shows that providing people with normative information (i.e., information about how others are behaving) is more effective when the bond between the reference group and receiver of the message is closer. For instance, a message like ‘many people living in Amsterdam eat sufficient amounts of fruits’ should be more persuasive for an inhabitant of Amsterdam than the simple message ‘many people eat sufficient amounts of fruits these days.’ Some studies have even shown that strong affiliation with the reference group is needed for normative information to be persuasive.

People also differ in the degree to which they believe they possess control over their own personal health. This so-called ‘health locus of control’ theory categorizes people into ‘internals’ if they believe that they themselves are in control of their health and ‘externals’ if they believe that their fate is controlled by external forces such as powerful others or chance. ‘Internals’ have been shown to be more likely to carry out health-promoting behaviors, such as exercise, and to take responsibility for their own actions. As such, the theory is closely related to the construct of self-efficacy which reflects a person’s belief in his or her ability to overcome the difficulties inherent in performing a specific task in a particular situation. Self-efficacy has been shown to be a powerful predictor of many health behaviors. For example, people tend to pursue tasks in which they feel competent and are confident of accomplishing and avoid challenging tasks which involve complex behavior changes (e.g., eat less fat). Messages that boost self-efficacy focus on reasons and skills that make people believe they will be able to carry out the behaviors successfully. Research has shown that messages consistent with the locus of control of individuals are more effective than general messages.

Potential Misinterpretations of Communication about Risks, Health, and Nutrition

Once consumers are exposed to information, whether accidently, or because they deliberately searched for it, the interpretation and comprehension process begins. Comprehension is a precondition of correct interpretation of information. Various studies have shown that individual differences, such as food safety and nutrition knowledge, and health status influence the interpretation of related information. In general, consumers, and some researchers and policy makers, feel that health and nutrition information is often conflicting and confusing. To prevent confusion, it is often stressed that information should be simple without adding too many details. When asked for their opinion, for example, in group discussions or personal interviews, consumers tend to express a preference for simple and understandable information. However, the more information is summarized, for example, in a single logo front-of-pack, the more it is lost, which may make misinterpretations more likely to occur. Information about food often produces inferences (beliefs that are not based on information directly presented to an individual). Consumers are heavily influenced by existing knowledge that is activated during comprehension. Consumers can make
interferences from small amounts of information. For example, some consumers might infer that a food is healthy because the advertisement emphasizes the naturalness of the product. Research on the effect of positive descriptive food names on food showed that these descriptions might create a 'halo effect' such that the food consumed becomes more attractive and liked.

Closely related to this is that healthy and safe eating messages typically stress only one particular risky or beneficial aspect of foods. People tend to rely strongly on one piece of information when making decisions, the 'anchoring bias.' Moreover, faced with information overload, individuals tend to just categorize foods as good or bad and do not evaluate a food or message about the food in the context of the total diet. This is also called 'dichotomous thinking'; the oversimplification of information in either bad or good. Consequently, messages that aim to change undesirable behaviors may be not well received if consumers think that they have to give up their favorite 'good' foods. Restricting the amount of information provided, and presenting a balanced view of risks and benefits, may reduce this tendency.

Food decisions of consumers are based on both the expected benefits and risks. When people are concerned, they typically desire more information about the object of their concern and want to be taken seriously. Risk perceptions of consumers have been found to increase when a potential food risk is perceived to be unnatural, potentially catastrophic, or unfamiliar. Understanding these psychological drivers of risk perceptions are of key importance. For example, research has shown that food additives were rated as more harmful when their names were difficult rather than easy to pronounce, indicating unfamiliarity. The trade-off between risks and benefits involves weighing the benefits of a food (e.g., the health benefits of consuming fatty fish in relation to heart diseases) with the safety risks (e.g., contamination of fish with heavy metals). Perceived risk and benefit seem to be inversely correlated. In case the benefits clearly outweigh the risks associated with a food, risks become more acceptable. This implies that when something is perceived as highly risky, it is correspondingly only acceptable when there are high benefits. This suggests that certain trade-offs between risks and benefits are being made by consumers. The information processing of consumers in terms of perceived benefits is to a large extent the result of cognitive processes. For risky information, consumers process that type of information in a more heuristic way which refers to people's fast and intuitive responses to dangers.

Consumer responses to communication are influenced by more factors than the information itself, such as the trust in the source of information. This concept of trust has been extensively studied in relation to consumer perceptions of the risks and benefits associated with the consumption of different foods (for example, in relation to the efficacy of regulatory assessment and governance practices) and information about the risks and benefits of consuming different foods. For example, when consumers judge information to be overcomplicated and difficult to comprehend, they will use their perceptions of the motives of the information source in providing the information to make decisions about the value of the information. They may also adopt the attitudes of groups with whom they perceive that they share values, rather than process the information directly.

To evaluate the healthiness and nutritional value of specific food products, consumers have to resort to the use of credence attributes. Credence attributes are those product characteristics that cannot be verified by the consumers or can be verified only after a long time period. Consequently, consumers have to believe that these attributes deliver without proof at the moment of purchase or consumption. Hence, consumers have to rely on their trust in food manufacturers or regulators. Generally it has been observed that trust in scientific governance has increased across Europe in recent years. Industry sponsored initiatives (such as front-of-pack nutrition labeling) may or may not be subject to regulation, depending on local or regional legislative frameworks in force. For example, in Europe, nutritional labeling must be 'evidence-based,' whereas in South East Asia no such legislation has been enacted. In a global society this may result in different messages being delivered to consumers which vary across regions, causing further consumer confusion about dietary choices. From an industry perspective, such labeling may be used voluntarily to indicate the industry is responsive to societal concerns about food and nutrition.

Changing Consumer Behavior in a Desired Direction

Even under circumstances when people process nutrition information correctly and are motivated to change their diet accordingly, they still often fail to do so. Choices regarding the purchase and consumption of food are made on a daily basis and most of the time is performed in the same context. This repetition in behavior and context means that eating behavior is largely habitual and consequently difficult to change. Habits can be understood as learned sequences of acts that have been reinforced by rewarding experiences in the past and that are triggered by the environment to produce behavior, largely outside of people’s conscious awareness. This automaticity means that educational interventions attempting to change behavior by fostering deliberate intentions towards healthy eating are often ineffective. Instead of promoting healthy eating intentions by means of informational campaigns, habit theory suggests that interventions may be more effective when they target environmental cues that trigger automatic behavior. Habits may be easier to break when there is a change in context. Therefore, attempts to change or create eating habits may be more effective when they coincide with a change in someone’s situation, such as starting with a new job or moving to a new neighborhood.

Another, related, reason why people often fail to implement their good intentions has to do with their limited self-regulation capacity, or in more popular terms ‘willpower.’ To enact a healthy food choice when tempted with unhealthy, but hedonically attractive, alternatives requires a high level of self-regulation. People need to be able to resist the reward of short-term gratification over the long-term health benefits associated
with healthy food choices. In particular, in moments of low self-control, for instance when one is tired or hungry, self-regulation often fails. Education interventions that include self-regulation techniques have shown to be more effective than interventions that are based on information provision only. These interventions often include a component that encourages people to make specific plans as to when and how to implement the desired behavior. These so-called implementation intentions have shown helpful in enacting positive intentions.

A major question in research and policy making is whether communicating about diet, health, and nutrition will actually lead to healthier and safer food choices and less nutrition-related diseases. To date, little empirical and consistent evidence exists to support that education improves eating habits. Research on actual impact on diet and health is complex and time consuming. Traditional consumer research approaches based on self-reports are valuable but limited as consumers tend to give socially desirable answers (and besides may not be aware of the factors that underlie their habitual food choices.

Concluding Remarks

Educational campaigns and health interventions are widely used to promote healthy and safe eating practices. Despite these initiatives, consumers do not always notice and act on information provided, particularly when they are overwhelmed with high levels of information. Hence it is important to target messages according to different consumer needs and preferences, for example by referring to other people’s action with which the target group closely identifies. Careful segmentation of different population groups may lead to more readily engagement in health-promoting behaviors.

Easy accessible and understandable information is needed to enable consumer to make informed choices about risks and benefits. To increase the likelihood of acceptance, information is increasingly provided at the place where it is most needed. For example, food preparation information should reach the kitchen by putting clear instruction labels on particular foods. Nutrition information ‘front-of-pack’ or on shelf tags in retail support consumers make in-store decisions.

Information that is not personally relevant and generic is less likely to attract attention and influence attitudes or behavior. Messages that are closely tailored to individuals’ interests are more likely to be internalized. Over the previous decade, there has been growing interest in the role of the internet, including social media. Developments in communication technology have enabled efficient delivery of information to large number of individuals. The increased availability of the internet and new social media tools facilitate interactive communication that can help inform the public and create a dialog between communicators and consumers. In particular, one characteristic of social media is that consumers themselves play an important role in sharing and ‘cocreating’ information. At the same time these additional communication channels are a relatively unfamiliar domain leading to new challenges for researchers, risk managers, and communicators and may create groups of excluded individuals who do not have access to these new media.

In the current food environment, consumers are regularly confronted with relatively cheap, tasty, and unhealthy foods. This is supposed to be a strong contributor to the increase in nutrition-related diseases such as obesity. As a consequence, environmental interventions are highly needed as a complementary strategy to improve healthy and safe eating habits among consumers. In addition, for effective communication to be developed, it is important to understand the factors that influence consumer trust in information about diet, health, and nutrition.

See also: Risk Analysis: Risk Communication

Further Reading


