

How People Interpret Healthy Eating: Contributions of Qualitative Research

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ABSTRACT

Objective: To identify how qualitative research has contributed to understanding the ways people in developed countries interpret healthy eating.

Design: Bibliographic database searches identified reports of qualitative, empirical studies published in English, peer-reviewed journals since 1995.

Data Analysis: Authors coded, discussed, recoded, and analyzed papers reporting qualitative research studies related to participants' interpretations of healthy eating.

Results: Studies emphasized a social constructionist approach, and most used focus groups and/or individual, in-depth interviews to collect data. Study participants explained healthy eating in terms of food, food components, food production methods, physical outcomes, psychosocial outcomes, standards, personal goals, and as requiring restriction. Researchers described meanings as specific to life stages and different life experiences, such as parenting and disease onset. Identity (self-concept), social settings, resources, food availability, and conflicting considerations were themes in participants' explanations for not eating according to their ideals for healthy eating.

Implications: People interpret healthy eating in complex and diverse ways that reflect their personal, social, and cultural experiences, as well as their environments. Their meanings include but are broader than the food composition and health outcomes considered by scientists. The rich descriptions and concepts generated by qualitative research can help practitioners and researchers think beyond their own experiences and be open to audience members' perspectives as they seek to promote healthy ways of eating.

Key Words: review, qualitative, healthy eating, food choice, focus groups, nutrition education (*J Nutr Educ Behav.* 2012;44:282-301.)

INTRODUCTION

Because of its potential to advance understanding of social and behavioral aspects of food and eating, qualitative research continues to gain importance in the fields of food, nutrition, and health. Researchers acknowledge that compared to experts, the public may view food, nutrition, and health very differently. Understanding audiences' perspectives and experiences related to healthy eating is important if nutrition and health educators wish to gain people's attention and assist them in meaningful ways. Previous reviews have described the general roles of qualitative research in nutrition and health promotion.^{1,2}

The term "qualitative research" typically refers to studies that are charac-

terized by both their underlying philosophies and their methods.^{3,4}

Qualitative researchers typically view the world as having *multiple realities*, because people's understanding and interpretations of the world depend on their unique personal experiences and the historical, social, and cultural contexts in which they have lived. Qualitative researchers strive to understand other people's perspectives and experiences, and they usually study people in their natural settings. Denzin and Lincoln's *Handbook of Qualitative Research* describes this field's complex history and diverse traditions, including disciplinary origins, applications, and issues.³

Creswell⁴ characterizes qualitative research as having 5 approaches: nar-

rative research (listening to people's life stories), phenomenology (identifying and understanding people's lived experiences), grounded theory (developing new concepts, frameworks, or models based on participants' perspectives), ethnography (immersion in a setting and collection of multiple types of data about people and their community), and case studies (detailed historical and contextual information about a single person, group, organization, or community). All of these approaches involve the collection of detailed, descriptive data that may take a variety of forms, such as transcripts of interviews with individuals or groups, photos, field notes, journals, documents, blogs, or audiovisual recordings. As a study uncovers new insights, opportunities, or problems, researchers may adjust their data sources, methods, and research tools. Analysis uses non-numerical systems of coding, categorizing, comparing, and contrasting as researchers examine data for themes and emerging patterns.^{5,6} Researchers may report findings as descriptive

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cases, themes, or conceptual frameworks. They may propose theories or hypotheses for future study.

Qualitative researchers typically use purposive samples with specific criteria for inclusion and exclusion that may be dynamic as investigation uncovers new insights. Small samples enable researchers to collect in-depth data. The sample size is determined by the amount of data or data extensiveness needed to achieve theoretical saturation, the point when continued sampling yields no new insights.⁷

Qualitative researchers use a number of strategies to enhance the quality or soundness of their studies, often described as trustworthiness.^{6,8-10} Key concerns are how well findings represent participants' actual perspectives (credibility), how any modifications in the methods may have affected researchers' interpretations (dependability), the extent to which others reviewing the data and procedures would come to the same interpretations (confirmability), and the extent to which findings may be applied to other people, places, and times (transferability).^{10,11} Credibility has been likened to internal validity; transferability to external validity; dependability to reliability; and confirmability to objectivity.^{8,10,11}

Qualitative research is often contrasted with quantitative research, a term that usually refers to studies that test hypotheses, examine predefined concepts and variables, use predetermined sample sizes that are often representative of populations, employ numerical methods for measurement and analysis, and strive for objectivity. Table 1 summarizes some key characteristics of qualitative and quantitative research projects. In mixed-methods studies, researchers combine qualitative and quantitative procedures in various ways to achieve their goals.^{12,13}

The authors reviewed the literature to learn how researchers have used the philosophy and methods of qualitative research to gain insight into the ways that people consider health related to food and eating. This review asked, "How has qualitative research advanced understanding of the ways that people interpret healthy eating?"

METHODS

The authors searched PubMed, Soc Abstracts, PsychInfo, and ERIC bibliographic databases for empirical studies published in English since 1995 using terms related to healthy eating (ie, food habits, food preferences, food behavior, eating behavior, behavior change, healthy eating, food psychology, dietary change, food decision making, food choice, nutrition education) in combination with terms relating to qualitative methods (ie, ethnography, focus groups, interviews, grounded theory, and qualitative research). Each database was searched using 55 different combinations of terms. These key terms could appear anywhere in the article's title, abstract, or descriptive terms. To find articles that the search may have missed, the authors followed up on citations in many papers and hand searched through *Appetite* and the *Journal of Nutrition Education and Behavior*. They also examined the publication records of qualitative researchers who were extensively engaged in research related to the topic of the review.

The initial search of the published literature since 1995 revealed thousands of papers on an array of topics and types of studies related to the question. To keep the review manageable, the review focused on a subset of this literature and examined empirical papers reporting qualitative studies that were published in English, and in peer-reviewed journals. The authors also limited the search to those studies done in developed countries (ie, United States, European countries, Australia, New Zealand, Canada, and Japan) where food variety and availability are great for most people and where health issues related to food and eating are likely to encompass a wide variety of considerations. The authors excluded the many papers focused on the topics of food insecurity, eating disorders, obesity, and community-based interventions. These topics frame healthy eating in important ways that could not be fully explored in this limited review. The review focused on the ways that people perceived and experienced health related to food and eating and not on the factors, processes, or practices of health promotion or environmental change.

Articles meeting the selection criteria were added to a RefWorks bibliographic database that was accessible to all authors on the team. As the pool of articles increased, the authors developed a list of codes to characterize each paper's methods and findings. Each author carefully read through a subset of the papers and assigned codes according to the details of the paper. As authors read and discussed papers, new codes emerged, and they revised the code list and recoded papers as appropriate. Initially, the authors found about 500 papers that seemed to be within the scope of the review. After all team members closely looked at methods employed and topics investigated, they selected only papers that reported qualitative findings in a substantive way. Papers reporting mixed-methods studies in which the qualitative findings were not reported in detail were excluded. Also eliminated were papers that reported on face-to-face interviews (much like surveys) that were not in depth, papers that described only brief discussions with study participants, or included only 1 open-ended question. This process yielded 195 papers that were coded in further detail and used for the review. Papers were not evaluated for trustworthiness or limitations.

Analysis of the papers concentrated on identifying the particular ways that qualitative methods contributed to the understanding of how people interpret healthy eating. Though health aspects of eating were not necessarily the focus of many of these studies, how people interpreted health related to food and eating was a substantive topic in the findings. The authors discussed the methods and findings reported in the papers and the themes emerging across the papers. Using an iterative process, the authors identified the following 3 main themes: meanings people associate with healthy eating, ways meanings develop and change in relation to life stage and life experiences, and explanations people provide for the gaps between healthy eating ideals and their actual behaviors. Next, the authors reexamined the 195 papers to be sure that they understood their contributions related to how people interpret healthy eating. Authors identified meaningful

Table 1. Characteristics of Qualitative and Quantitative Research Projects

Characteristics	Qualitative Projects	Quantitative Projects
Purpose	Gain new perspectives and insights on topics	Determine frequencies or test hypotheses about factors predefined by researchers
Sample	Smaller, purposeful samples with continued sampling until no new findings, characteristics may change as analysis proceeds	Larger, preset sample sizes with predefined characteristics
Data	Open-ended, non-numerical forms in text, photo, audio, documents	Measurements or answers to predefined, specific questions that can be coded for counting
Methods	Subjectivity and flexibility in methods to gain in-depth and holistic understanding of topic	Objectivity, standardization, and use of controls in methods
Analysis	Thematic to identify concepts, commonalities, contrasts, relationships	Statistical to test hypotheses and relationships
Reporting style	Detailed (thick) descriptions, themes, contrasts, case studies, conceptualizations	Numerical forms with statistics

participant quotes that illustrated the depth and the detail of the insights provided.

RESULTS

The results of this review are organized in 5 sections:

- The first section describes the underlying philosophies used by these qualitative researchers.
- The second section gives an overview of the methods the researchers reported.
- The third section describes the insights these studies provide about the meanings that people expressed about healthy eating.
- The fourth section presents what these studies reveal about the evolving and dynamic nature of meanings across life stages and life experiences.
- The fifth section reviews key insights that these studies provide about people's explanations for the gaps between healthy eating ideals and actual behaviors.

The topics discussed in the third, fourth, and fifth sections overlap, and many papers made contributions across the sections. To avoid redundancies, however, the authors develop a topic in 1 section only, where it seemed most appropriate for the overall paper. Tables 2, 3, and 4 provide citations for various topics in the third, fourth, and fifth sections and also use selected participant quotes to illustrate the topics.

Philosophies and Approaches

All studies explored the need to understand how people interpret food and eating in their everyday lives, with many studies conducting this inquiry as part of a needs assessment for proposed interventions. Though explained in varying ways and depths, most researchers referred in some way to the constructivist or social constructionist perspectives, which view people as actively developing meanings and understandings in social, cultural, and historical contexts.^{3,4,14,15} From this perspective, people construct, form, and negotiate subjective and complex understandings of food, eating, and health through their personal experiences and interactions with other people and their environments. In their studies, researchers aimed to understand the insiders' perspectives (*emic*) rather than consider study participants solely from the researchers' or outsiders' view (*etic*).¹⁶ Therefore, researchers sought detailed descriptions of people's views, experiences, explanations, cultures, social settings, and environments to identify and understand how they think and behave related to food and healthy eating.

Some researchers used Bourdieu's concept of habitus as the theoretical basis for their study because it emphasizes that many of people's beliefs and patterns of behavior are internalized and automatically acquired as a result of their culture and social class.¹⁷⁻¹⁹ Habitus posits that these ways of thinking and behaving are often

implicit and automatic rather than thoughtful and deliberate. Because many daily dietary practices are subconscious, the open-ended questioning and flexible methods of qualitative research allow people to reflect upon what they do and think, bringing out beliefs and explanations that are typically subconscious. Qualitative research methods enable people to reveal their practical logic in their words, images, and explanations about how they approach life. Prolonged engagement with participants and observation of their settings further helps researchers understand the cultural and social milieu in which people live.

A discourse analysis perspective was adopted in several studies.²⁰⁻³³ Discourse analysis focuses on the common ways that people speak because their words, metaphors, images, and explanations reflect social, cultural, and historical norms.³⁴ People construct their meanings about a topic such as health and eating within the broader social discourse. Researchers use dialogue in focus groups and individual interviews to understand how people express these norms and how they use language to position themselves in the societal context. In analyzing dialogue, researchers are interested in the content people discuss and the content that is not included.

Grounded theory research developed concepts and relationships based on people's interpretations of their experiences.³⁵⁻³⁷ For example, the Food Choice Process Model has

Table 2. Types of Meanings People Associate with Healthy Eating

Types of Meanings	Examples of Participants' Interpretations
Fruits and vegetables ^{21,32,104,121,128,144,173-179}	Fruits and vegetables are key ingredients to being healthy. ¹⁷⁸ Fruits and vegetables are healthier than a bag of chips. ¹⁷⁹ I serve FV [fruits and vegetables] to my kids because I want to give them healthy food. FV are the most important food of the day. ¹⁷⁹ A person who eats fruits and vegetables [is] taking care of his body mentally and spiritually. When you take care of your body, you're mentally and physically alert. ¹⁷⁸
Animal food ^{32,117,118,180}	...some kind of meat; for some reason, you still imagine that meat is the crown, without it, it's not proper food. ¹⁸⁰ ...not too heavy on the meat... ³²
Safe food ^{29,30,181,182}	Physiologically I, for some reason... my body seemed to not want to eat meat any more. I was getting ill actually from it. ¹¹⁷ I've got children and I've got grandchildren... and it bothers me that the food they're eating could be changing them. But we don't know until 20 or 30 years down the track. ³⁰
Functional food ^{22,60,73,183-185}	We're careful about the chickens that we buy. ³⁰ But I do think you need a little help in the diet and if I can see that lovely tasting Vitality stuff and it's telling me it's got all these millions of good bacteria in it, so I'll drink it. ²²
General nutrients ^{19,72,98}	Of course, you wonder what additives you get from it [functional food], so maybe you'll get rid of cholesterol but what if you'll get cancer or something in return? ⁷³ Different nutrients from different things but I think again when you look at things overall I think they probably have a very adequate diet. ¹⁹
Fiber ¹⁸⁶	I start the morning with porridge, which I make of fiber-rich oats and oat bran. ...they say it's good because it pulls out the fat... it should counteract high cholesterol. ¹⁸⁶
Vitamins and minerals ^{90,128,187-189}	...taking the appropriate vitamins to help supplement what I don't eat. ¹⁸⁸
Fat ^{32,98,104,111,112,173,182,186}	...because he [husband] has high cholesterol... so I keep it [fat] pretty low. ¹⁸² You should be careful with fat... ¹⁸⁶
Carbohydrates ^{174,190-192}	... a particular friend is on a protein diet so she's cut out all of her carbohydrates... ¹⁹⁰ I cannot eat potatoes and rice because it turns to sugar because I am a diabetic. ¹⁹¹
Contaminants/toxins ^{30,193,194}	...the different insecticides and everything that's being used. I get concerned about that. ¹⁹³
Natural ^{22,73,90,98,113,118,177,181}	I think natural food for baby is much better. ²² I try to eat all raw, living [food] most of the time... ⁹⁰
Organic ⁷¹	I try to eat primarily organic. Being where I live the cost of organic food isn't really an issue. I try to eat as few processed foods as possible and eliminate added sugars. For the most part all of the above are working. ⁷¹
Homemade ^{33,62,100,113,195}	Eating in was associated with "having control over what goes into the food," both in terms of including the "right" foods and compounds (eg, vegetables, natural food), but more importantly, avoiding "bad" aspects (eg, high fat intake, processed food). ³³ I don't know how they're manufactured or what they are putting into it. I'd rather just buy fresh food and cook it myself. ¹¹³
Balance ^{21,22,30,47,51,73,82,84,94,98,106,109,115,180,196-198}	And with a pizza I often eat, I buy a cucumber. Then I think it's all bread and salami, and fat etc. Then I want to have something fresh with it. ²¹ I think the emphasis on food should be about balance. ⁸⁴ You strive to find a balance between spoiling yourself, feeling good and being healthy. You may sometimes gorge yourself and bargain with your health to buy yourself mental well-being. ¹⁸⁰
Variety ^{51,73,180,198-200}	As long as you have a good variety of food and don't eat too much of anything, you can't go far wrong. ²⁰⁰ [A healthy diet] consists of lots of vegetables, but is above all varied—in a week's period there's quite a lot of various stuff included. ⁷³
Moderation ^{21,31,84,113,201}	It [healthful] makes me think of salad. You know, just vegetables, fruit. And some types of meat, but in moderation, not a whole lot. ²¹
Regular meals ^{73,113,173,192,196}	This is my motto. Eat everything, just small amounts of it. ²⁰¹ ...keeping regular hours for meals everyday. ¹⁷³

(continued)

Table 2. Continued

Types of Meanings	Examples of Participants' Interpretations
Proper meals ^{73,95,113,200,202,203}	It's working out a compromise all the time...what is a good proper meal to what we can get down their [children's] necks. ²⁰³
Weight ^{40,98,100,112,187,195,199}	Ordinary proper food is as healthful [as functional food]. ⁷³ Healthy means food that's good for you, not fattening. (association of being thin with healthy eating by 9- to 11-year-olds) ¹⁹⁹
Energy ^{46,180,204}	I have made these gradual changes in my diet to feel better, to have more energy. My body needs it and I listen to my body. ⁴⁶
Strength and physical performance ^{41,205}	It [food] helps you get around and gives you the strength. ²⁰⁵ I don't have a big piece of pie, because I'm worried about practice, I'm worried about my energy level. . . I do think pretty consciously about what I'm going to eat during the day before hockey practice. ⁴¹
Disease avoidance ^{19,32,43,47,90,98,108,109,117,128,183,188,190,191,206}	I don't want a stroke... so I try to leave the cheese alone... ⁴⁷
Disease management ^{45,69,81,98,137,174,186,207-212}	I manage my diabetes on my own. We were eating so differently that I said you know what... we can eat together, but I am going to prepare my own food and do my own thing because this is not good for me. ²⁰⁷
Intolerances ^{47,72,191}	I'm in control because fear made me control my diabetes. ²¹⁰ It used to be that I could eat anything without difficulty but your system changes and I think I recognize that now. ⁴⁷ ...as my body is getting older, there are certain things that my body cannot tolerate... so slowly I change my habits... ⁷²
Psychosocial well-being ^{21,24,67,72-75,77-80,84,178,186,196,203,213-215}	...you have also got to be relaxed and happy about what you are doing. I don't think it's healthy if you get too fanatical about how much of how many bits and pieces are in every bit of food. You've got to get a happy balance. ²¹³
	Health, it's such a broad issue because it goes from your environment to your lifestyle, and we have a whole lot of pollution, we have smog in the air, even now it can affect health. So it comes from different aspects of our—mentally, socially, physically, spiritually; good health depends on all that. ⁷⁹
	It's [healthy eating] eating food to nourish your spirit as well as your body...and, you know, so it's really being connected to where it comes from as well as where it's going, like to feel good. ⁷²
	You strive to find a balance between spoiling yourself, feeling good and being healthy. You may sometimes gorge yourself and bargain with your health to buy yourself mental well-being. ¹⁸⁰
	It [dietary advice] doesn't interest me. I eat what I like and what makes me feel good." ¹⁸⁶
Personalization ^{19,27,29,30,32,43,47,72,73,81,83-91,93,96,122,131,186,216-218}	Well, I think again it's just, listening to everything but then making your own, making your own mind up, you know, what's best for you. I think if you listened to everything you wouldn't eat anything, would you? ²⁷ We do what works for us... how it fits in with our ideas. ¹²²
	You take what's right for you and use it. ¹²²
	But I'm a diabetic. I'm not going to lie. I eat whatever I feel like I want to eat. I'll just accept the consequences later, down the line. ¹³¹
Restriction and control ^{26,30,41,42,62,66,82,89,94,96,97,104,192,199,219}	They [kids] don't like broccoli, so if we are having broccoli we make them eat 1 or 2 pieces. They go, 'Ugh,' but they'll eat a piece. ⁶⁶
	I will say to them: 'you can help yourself to anything in the line of fruit or vegetables but if you want something sweet you have to ask permission and not just take it.' ⁸²
	My Mom was worried that I might get diabetes so she put me on this no flour, no corn, no sugar thing. I'm getting paid not to eat those foods. ⁶⁶

been developed and elaborated on through multiple qualitative studies using open-ended interviews with adults.³⁸⁻⁴² This model portrays the

factors and processes involved in adults' thoughts, feelings, and actions related to food and eating, including health considerations. Other papers

reporting conceptual frameworks based on the experiences of the participants include studies of low-income women's dietary beliefs and

Table 3. Life Stages and Life Events That People Relate to Their Meanings for Healthy Eating

Life Stages and Life Events and Experiences	Examples of Participants' Interpretations
Childhood ^{55,62,64,94,103-105,174,176,199,220-222}	We like candy... all kids like candy more than fruit. ¹⁰⁴ Kids don't usually want to eat healthy food. ¹⁰⁵
Adolescence ^{65-67,100,106,107,150,174,214,223-226}	We can't be bothered with buying healthy snacks...Not raisins, either. We don't want to pay for the healthy stuff. ⁶⁵
Adults and aging ^{32,42,47,81,96,109,112,113,124,186,190,191,200,205-207,227}	... now as I've gotten older I'm beginning to think about heart trouble... ¹²⁴ No I don't bother at all about it [dietary advice]... I think when you are this old you shouldn't change your food habits. ¹¹²
Marriage/ cohabiting ^{22,68,96,115,120,121,207,228}	I don't think I am eating healthy at all (now that with a partner), because I eat a lot of take-out and I don't eat a lot of vegetables... before I used to have salads with my meal... ²²⁸
Parenting ^{27,40,43,83,86,94,104,122-125,127,198,229,230}	With the two of us present, there's a better chance that a more substantial or more nutritious meal will be prepared. ⁹⁶ Having kids myself makes me realize that I wasn't eating enough green vegetables... ²³⁰ In my teens, it was more on-the-run type [of eating]. . . It was not until I had [my daughter] that I started making sure there was always a hot dinner at night. ¹²⁷
Disease onset ^{22,32,44,45,69,90,109,117,126-128,132,137,174,182,186,189,192,207,210,211,216,231}	My family doctor used to talk to me about diet before I had the heart problem and ended up in the hospital. But I was kind of ignoring her. That was a wake-up call for me, that trip to the hospital. ⁴⁵ ...I didn't need too much incentive [to become a vegetarian]. I had heart disease... ¹¹⁷
Women's transitions ^{18,46,112,125-127,201,215}	I love broccoli, and now I eat it more because somebody put it in my head that it prevents breast cancer. ¹²⁸ Since getting pregnant, I really try to eat some food from each of the food groups every day... like bread, milk, lots of fruit, some salads, and eating more meats, like fish and chicken. ¹²⁵ I knew I couldn't go back to what I was doing before. So I keep an eye on fat and alcohol, no eating masses of fried food or huge amounts because this is what I've got to do to stay at this weight. ²⁰¹ I don't cook for myself as much. There is no incentive. ²¹⁵ I enjoyed cooking before, but I don't anymore. Now I cook because I have to. ¹¹²

experiences,⁴³ lifestyle changes related to heart disease,^{44,45} dietary trajectories among perimenopausal women,⁴⁶ and nutritional self-management among older adults.^{45,47,48}

Methods Employed

The papers in this review primarily reported the results of focus groups and individual interviews typically conducted by trained leaders who used semistructured interview guides with open-ended questions and probes. Focus group leaders encouraged natural and spontaneous conversations among participants about the topic of interest.⁴⁹ For individual interviews, researchers entered into a conversation with the participant to gain in-depth

information. Some studies used multiple interviews with individual participants. Interview questions were designed to build rapport with participants and encourage them to reflect on what they think and do. The following questions are examples of the kinds of questions asked in these interviews. "How do you think that food is related to a person's health?"⁵⁰ "When you say a healthy diet, what do you mean?"⁵¹ "What are the things that make it hard for people to have healthy diets where you live?"⁵² and "What would make it easier for people to have healthy diets where you live?"⁵²

Some interviews included participant tasks such as card sorts,⁵³ collage creation,⁵⁴ or use of photos^{55,56} to stimulate or focus the conversation.

In other studies, think-aloud procedures while cooking or shopping enabled participants to explain what they thought as they proceeded through different food and eating tasks.^{57,58} Laddering techniques were used in some studies to understand higher level motivations for particular decisions, such as purchasing organic food⁵⁹ or functional food.⁶⁰ Some studies asked participants to provide dietary data, such as in food frequencies or recalls, and some researchers asked participants to complete additional survey instruments.

Some investigators supplemented interview data with observations in homes,^{41,61} lunch rooms,⁶² or shopping trips.⁶³ Some researchers took comprehensive ethnographic

Table 4. Types of Explanations People Provide for the Gap between Healthy Eating Ideals and Behaviors

Explanations	Examples of Participant Explanations
Identity ^{21,24-26,33,40,41,51,52,62,64,65,72,80-82,84,85,103,105,111,115,118,124,126,127,130-135,180,216,219,231,232}	I am no fanatic, if you know what I mean. But I try to eat a varied diet... I believe in variation and moderation. ⁵¹ The hard thing is not really the food. It's just that you can't be like everyone else. ¹³² Without lard it doesn't taste the same. People miss their culture and if you want to take away the fat, you're trying to take another piece of my culture away. There's enough that's been taken away. ¹¹¹
Social factors ^{28,40,43,64,69,85,91,93,94,104,108,115,120,124,125,127,128,144,146,187,194,207,209,214,215,217,218,227,229,233-239}	Mostly girls like to eat healthy stuff and a lot of boys like junk food. ¹⁰³ But a lot of it [healthy eating] is not cool [for teens] you see. They do like it, they'll eat it at home but they won't eat it in front of their friends. ²³³ I used to cook fresh vegetables and just [that] sort of thing, I used to think then about health, I think it was because I was looking after the children and the husband, making sure we all ate healthily. (a woman now living alone) ⁴³ My partner refuses to compromise on taste, like I'm trying to make something low-fat, it's just like 'it's not as good as the real stuff, it's garbage' and just refuses to eat it. ²³⁴ When we found out, my husband and I both said, 'Well, we are going to have to work at this together.' So from the very beginning I did not feel alone and scared, because I knew I had the support of my husband. ²⁰⁷
Resources ^{40,43,52,54,64,80,91,100,108,111,113,115,122,125,138,142-144,146,182,186,187,202,211,219,223,225,229,234,236,237,240}	I don't have the time to cook and prepare meals that I would like... healthy meals... I do a lot of that [frying] because it's quicker and easier and faster... ¹⁴² I know exactly what we should be eating and what would be healthy and all that and I'm really frustrated that we can't eat that way... because there just ain't enough money... I have to buy the cheapest, fattiest hamburger because I can't afford to buy the more expensive less fat um, stuff like that. I can't buy organic most of the time. ²⁴⁰ So I mean you just don't know and with nobody telling you what you can't eat. So of course you are finding out for yourself. ²¹¹ Sometimes I find it a bit complicated because girls we are supposed to know how to cook... People will judge you if you don't eat, or don't eat well, or if you don't cook well. ¹³⁸
Food availability ^{82,146,147,150,174,175,214,219,220,223,234}	Probably the most obvious thing to me is what is available. If we have certain foods in the house she [daughter] will eat them, if we don't, she doesn't ask for them. ²²⁰ If I'm at my house I'll have a good meal, I'll have a healthy meal, but if I'm at my boyfriend's house I'll have a junk meal. ²³⁴ ...so when they go out they'll have something like [a popular fast food outlet] which we never buy, never have it in, but she'll go to those places with her friends because I think they are relatively cheap to eat. ⁸² We can't really buy healthy food. You can't buy broccoli at a movie theatre. ²¹⁴

approaches and involved multiple types of data collection from the community to identify a broad range of factors that affected people's food and eating decisions.^{64,65} Interviews with multiple household members were used by several researchers to understand the "co-construction" of food and eating between spouses or between parents and children.⁶⁶⁻⁶⁹

Internet forums and blogs provided new sources of dialogue about food and health that researchers studied.⁷⁰ Researchers also interacted with participants through the Internet and e-mail.⁷¹

The papers examined for this review approached their studies from different perspectives. For example, some focused on participants' view of healthy eating, whereas others reported on participants' view of healthy eating in the context of examining general health, general food choice, or specific topics such as food safety, fruits and vegetables, or functional food.

Diverse and Complex Meanings

The papers revealed a wide range of meanings that people associate with healthy eating (Table 2). Participants

in these studies discussed healthy eating in terms of foods (eg, fruit, vegetables, animal food, safe food, functional food). People also explained healthy eating in terms of nutrients (eg, general nutrients, fiber, vitamins, minerals, fat, carbohydrates) or other components (eg, gluten, additives, toxins). Healthy food was also described in terms of how they are produced, processed, or prepared (eg, natural, homemade, organic). Participants' conversations about healthy eating also involved ways of eating (eg, balance, variety, moderation, regular meals).

Participants often addressed healthy eating in terms of the consequences that they believe result from eating in more or less healthy ways. Their mention of physical consequences included energy, strength and physical performance, weight, disease avoidance, disease management, intolerances, or other conditions.

Participants in these studies also related healthy eating to psychosocial well-being,⁷² an interpretation that seems to be appearing in the more recent literature. One view of Finnish participants was that healthy eating is inherently pleasurable because it reduces worry and guilt,⁷³ or, as House et al reported, "(it) makes you feel good about yourself."⁷⁴ However, a more common view was that healthy food and ways of eating are boring, not tasty, and not satisfying. Some participants viewed eating enjoyment as important to health, arguing that well-being is enhanced by food and meals that allow one to connect with family in harmonious ways, participate in one's cultural traditions, or experience role satisfaction.^{67,75,76} Studies report people's descriptions of holistic views that include mental health and strong family relationships being important in overall health. Participants with this view may seek a type of overall life balance, beyond just a balance among food or nutrients.^{21,77,78}

Some participants viewed food as connecting them to spiritual well-being and reported that spiritual well-being is an important element of health.^{79,80} Using a holistic view of health, African American participants explained that soul food fed them in a spiritual way by connecting them to their traditions and their culture⁸⁰ and that "health is more than eating or exercise. It's all those things and more."⁷⁹

Healthy eating was associated with idealized ways,^{81,82} often standards set by others, such as medical experts and governments. In interviews, participants positioned themselves in relation to the authoritative recommendations. Some people reported striving to achieve the official, idealized way, whereas others consciously rejected official directives (ie, "refusing to go along with") and felt proud to

maintain their own ways of eating.^{27,43,83-86} Some participants disregarded scientific advice about healthy eating because they were skeptical of science and lacked trust in government, believing that recommendations reflect undue influence from interest groups.^{27,76,84} Some participants preferred to make up their own minds about what advice to take and whom to trust when healthy eating messages seemed confusing or unreliable.^{27,84} Canadian immigrant mothers who held strong traditional food beliefs about healthy eating did not readily accept the Western dominant healthy eating discourse and felt criticized by the normative culture and sometimes by their own acculturated children.⁸⁵ Traditional healthy eating knowledge was acquired over many generations.⁷²

Though people explained acquiring meanings for healthy eating from expert information, social interactions, and the media, their personal experiences and knowledge of what worked for them were often the bases for their own guidelines and standards.^{87,91} People reported deliberately modifying recommendations from experts to accommodate their personal views of what is healthy, including disease management. For example, Hawaiians recovering from cancer frequently used personalized healthy eating explanations.⁹⁰ This idea is similar to the concept of personal dietary guidelines identified by Janas et al in United States (US) cardiac patients⁸⁹ and the "common sense heuristics" that New Zealand parents used in choosing food for themselves and their families.⁹¹

Regardless of how people defined their ideal way of healthy eating, they often mentioned a moral component (ie, "being good," "the right way"), and they reported feeling guilty when they did not achieve the ideal.⁹² Benford and Gough found that pleasurable food was a source of guilt for some participants.²⁶ Taking individual responsibility for their health, some people were motivated to eat the right way so they would not burden others.^{76,93} The moral aspects of healthy eating were reported by Crawford et al to extend to the concept of "nutritional altruism,"²² the responsibility that care providers feel about attending to

the nutritional needs of those they care for. "Being a good mother" or "being a good wife" meant making an effort to provide healthy food and encourage people to eat in healthy ways.^{27,82,85,94}

Several studies pointed out that people associate healthy eating with restriction and control. This view emphasizes people's feelings of deprivation and need to be on guard in order to eat in healthy ways because they see their natural tendencies and environments as promoting unhealthy eating. For example, postmenopausal Australian women said that they knew how to eat in healthy ways, but they did not want to be constantly vigilant; they wanted to enjoy life.⁹³ Parents often indicated that they must restrict food available to their children to keep them healthy.⁹⁵ People reported managing feelings of restriction by developing ways of balancing the tension between restriction and nonrestriction over personally meaningful timeframes.^{41,42,96,97}

Participants categorized food according to their definitions of healthfulness,⁹⁸ often using dichotomous categories of "good food" and "bad food."^{99,100} People also categorized eating situations as more or less healthy.^{97,98,101} Categorization is a cognitive process that helps people store and retrieve information about food and eating, and, therefore, simplifies decision making.^{53,101} Blake et al found that lay classifications may not match professional classification systems.⁵³

Researchers found qualitative methods well suited to understanding how people's categorizations related to healthy eating are associated with their social and cultural contexts. For example, Chowdhury et al found that British Bangladeshi type 2 diabetes patients held 2 interrelated and intersecting binary systems for categorizing food, "strong/weak" and "digestible/indigestible,"¹⁰² which researchers viewed as substituting for the "hot/cold" system of classification common to other South Asian populations.

Coveney reported that parents with higher incomes tended to use technical terms and associate healthy eating with contemporary nutritional and medical priorities, whereas participants with lower incomes and from different cultural groups tended to

explain health related to eating in terms of children's outward appearances or their functional capacity.¹⁹ Crawford et al reported that Latina mothers of young children explained health in ways different from nutrition counselors.⁷⁵ Ristovski-Slijepcevic et al found that some ethnic minority participants viewed their role as providing their children with enough food and did not hold Western dietary standards for feeding children.⁸⁵ Chapman and colleagues cautioned that not all members of a minority community or family may define healthy eating in the same way.⁷⁷ Contextual factors influence how people interpret traditional beliefs, as well as their adaptation to the new environment. For example, in some Canadian ethnic minority families, the youth had different views of healthy eating compared to their mothers, and the youth were often the sources of Western dietary guideline information for their families.⁸⁵

Evolving and Dynamic Meanings

Qualitative research provides a way to understand the changing ways that people interpret healthy eating throughout their lives (Table 3). Children did not use the terms "healthy" and "unhealthy" in their everyday discussions of eating behavior,⁶² but they commonly used the "healthy food" and "junk food" dichotomy.¹⁰³ Children associated healthy eating with adults or something that their parents wanted them to do.^{62,100,104} They saw unhealthy food as suitable for and preferred by young people.^{62,100,104,105} Children connected healthy food with eating at home and unhealthy food with situations away from home or with friends.⁶⁵ Although adolescents recognized the benefits of healthy eating, they did not follow guidelines because of other considerations, including time, availability, peer influence, and lack of concern.^{65,106} They worked to balance the competing expectations of their friends and families related to eating.¹⁰⁷ Sylow and Holm found that food and eating played a symbolic role in young people's lives and was associated with new feelings of inde-

pendence, freedom from parental supervision, transitioning from childhood, and belonging to new peer groups.⁶⁵

For some adults, the aging process heightened their interest in healthy eating and motivation to make dietary changes,^{93,108} but other people saw being at risk of illness as a normal part of the aging process and did not take steps to reduce the risks.¹⁰⁹ The fatalistic view (eg, "You're going to die of something") was an explanation that some African American participants in Florida gave for not following nutritional guidelines.¹¹⁰ Other individuals may reject dietary advice, believing that their traditional ways of eating are best.^{111,112} Maintaining independence and not being a burden on family members motivated some older adults to pay attention to their diet.^{18,113} Falk et al reported how some people experience physical changes with aging that alter their tolerances for certain food and meanings for healthy eating.⁴⁷

Qualitative researchers taking a life-course perspective focused on the continuities and changes in people's lives and how stages of development interact with social, cultural, geographic, and historical contexts.¹¹⁴ Backett and Davison reported that people's discourse about personal health extended beyond physiological time to include social roles and responsibilities. Participants described health considerations appropriate for the "young and single" that were dramatically different from those appropriate for the "married with children."¹¹⁵

Researchers portrayed people as having "food choice trajectories" in that early life experiences provide thoughts, feelings, and ways of behaving that tend to continue throughout life.³⁹ For example, Devine et al reported that US adults from different ethnic groups explained how early experiences with fruits and vegetables had a strong bearing on their current consumption.³⁹ Trajectory analysis is an important tool for qualitative research as people's narratives reveal the unique meanings they hold for food and eating that have evolved over time.¹¹⁶ Falk et al examined cardiac patients' dietary change trajectories to illuminate the meanings,

processes, and events common to this group.⁴⁴

Studies with vegetarians revealed the evolving nature of their thoughts, feelings, and behaviors over time. For example, people who had become vegetarian for health reasons adopted ethical or environmental motivations over time. However, vegetarians initially motivated by ethics were less likely to adopt health motivations.^{117,118} Female vegetarians studied by Barr and Chapman described processes of adding and excluding foods from their diets over time for reasons of nutritional adequacy, contaminants, and social support.¹¹⁹

Marriage or cohabiting is a major change experienced by many people during which health concerns related to eating may be reconstructed. Qualitative interviews with both partners revealed the diverse ways that people may change their thoughts, feelings, and behaviors. The new relationship or household structure may increase the likelihood of a nutritious meal, however, people may compromise their healthy eating ideals to get along with a partner or spouse who has different preferences.¹²⁰ Kremmer et al reported that eating together had symbolic meaning for newly married or cohabiting couples and that women viewed their role as improving their husbands' diets.¹²⁰ Bove et al studied newly married couples over time and identified 4 different patterns of negotiation about ways of eating. These included "food projects," in which one spouse tries to change the other's ways of eating.¹²¹

Becoming parents is a turning point that often heightens interest in healthy eating. In feeding their children, mothers trusted their own judgment or that of relatives in addition to, or in contrast to, the advice they receive from professionals.^{83,86,122} Though some mothers embraced healthy eating for themselves as well as their children and tried to be role models, other mothers prioritized healthy eating for their children but retained separate ways of eating for themselves.^{40,123} Studies with Scottish fathers revealed the view that interest in healthy eating is motivated by a desire to take care of their families and see them grow up.¹²⁴

Qualitative methods have helped researchers understand the emerging and dynamic ways that women experience healthy eating through their life course. Traditional gender roles relating to appearance, childbearing, and family food provisioning intersect with ideas about healthy eating throughout women's lives. In a study by Fowles et al, pregnant women reported developing new meanings for healthy eating and facing weight management issues.¹²⁵ Studies of perimenopausal women at midlife reported 3 types of trajectories related to healthy eating: unsuccessful dietary change, a small change, and progressive change involving successful small changes.⁴⁶ In a 10-year follow-up study, well-educated Caucasian women expressed consistencies in their approaches toward food and eating during this time. Some, however, reported changes resulting from debilitating health problems and transitions in work and family roles.¹²⁶ Beagan and Chapman reported that once relieved of caring for children, women's attention to self-care may increase.¹²⁷

Disease onset is a life-course event often linked to new and differing ways of constructing beliefs about the role of diet in relationship to the disease. For example, breast cancer survivors varied in their views about the causal role that diet played in breast cancer, the certainty of their beliefs, and the involvement of possible dietary factors, including contaminants and toxins.^{32,127,128} Participants differed in how their own experiences and observations explained their beliefs versus their reliance on information from scientific studies. Participants reporting dietary changes included both those believing in the role of diet as well as others who were less sure.

Using interviews and participant observation at cancer support group meetings for Chinese patients in Canada, Bell et al discovered that patients and their families experienced conflict between Western and Chinese dietary approaches to wellness and treatment.¹²⁹ Unlike Western cancer patients, these patients described the inability to eat as distressing, since eating is considered a sign of good health as well as the pathway to achieving good health in Chinese culture. Patients' culturally specific

beliefs about specific cancer-causing and cancer-fighting foods made communication with Western medical professionals difficult.

Gaps between Ideals and Behaviors

Lay discourse about healthy eating often includes discussion about the gap between "what I should do" and "what I really do" (Table 4). People may understand the scientific advice related to healthy eating, but they may be unwilling or unable to follow through in their behaviors. The gap may also be between what a person aspires to do and what they actually do, regardless of how the ideal behavior matches scientific guidelines. This section highlights some insights that qualitative studies have provided in understanding this gap.

Identity. A person's identity or self-concept is often involved in the ways that they eat, and typically people seek identities that they see as positive and providing self-esteem.⁴² For example, whereas some people held healthy eating in high esteem and desired to be healthy eaters, others viewed healthy eating as weird, fanatical, picky, extreme, deviant, or boring.^{24,42} The latter individuals sought to distance themselves from negative identities they associated with the medical model of healthy eating.^{21,51} Strong cultural norms that may be inconsistent with nutritionists' recommendations are reasons people explained for not adopting healthy eating advice.^{40,64,72,115,130-132} Some reported resisting their health care providers' recommendations for eating because they wished to retain certain identities and avoid being stigmatized by their social group. For example, Swedish adolescents dealing with gluten intolerance reported not complying with dietary guidelines in social situations with peers because they did not want to be identified as having a medical condition.¹³² Participants whose foodways differed from nutritionists' recommendations felt that they were giving up their culture when they were asked to change food practices.^{52,80,111}

Qualitative researchers have explored the role of masculine identities

related to men's interpretations of healthy eating. Traditional male identities, which emphasize strength, risk taking, and endurance, were usually considered inconsistent with healthy ways of eating.^{124,133} For example, British men saw healthy food as boring, not substantive, or not satisfying, though important for the physically vulnerable.⁸⁴ Their strong ideals related to personal choice and responsibility led them to resist government advice. In contrast, male US college athletes linked healthy eating with athletic performance during the seasons of training and competition,⁴¹ and the link of healthy eating to men's ideals of strength and power is supported by content analysis of men's magazines.^{133,134} O'Brien et al found that Scottish men who paid attention to diet and fitness felt challenged by their peers who were concerned about maintaining their masculine identity. However, aging, fatherhood, and the onset of illnesses were factors that these men saw as appropriate reasons to be concerned about healthy eating.¹²⁴ A Finnish study of carpenters and engineers by Roos and Wandel concluded that occupation and social class were associated with men's varying views of healthy eating.¹³⁵ In a study of Canadian men who lived alone, participants reported cooking at home and taking an organized approach to food and eating, different from the stereotypical ways that they felt that bachelors were perceived.³³

Social factors. Eating is a social activity for most people.¹³⁶ Several of the preceding sections have described how social relationships and social processes are involved with how people interpret healthy eating, for example, in marriage/cohabiting, parenting, or peer acceptance.

Other qualitative studies have revealed that social support makes a difference in how well a person can comply with dietary recommendations for disease management. For example, in a study of families of individuals living with celiac disease or heart disease, Gregory found that the tasks and activities related to one person's special diet became family practices and "ways of life" as spouses assumed roles and

responsibilities for caring for each other's dietary needs.¹³⁷

In a study of adults involved in "meeting the challenge" of heart disease, King et al reported that men found their spouses supportive of the necessary dietary changes, whereas women found more support from their female family members or friends and less from their spouses.⁴⁵ Studying the dietary changes made by breast cancer survivors, Beagan et al reported that some women received a lot of support from spouses, children, and other family members for making changes, whereas others did not.^{127,128} The participants who lived alone reported that it was both a help and a hindrance not to have other household members involved in their dietary patterns.

Miller and Brown examined how couples adjusted to diagnosis of a spouse with type 2 diabetes and how spousal support operated in these couples initially and after 1 year.⁶⁹ Applying family systems theory to their analysis, these researchers identified 3 different ways that couples initially adapted to the recommended diet—cohesive (teamwork), enmeshed (diabetic spouse dependent on nondiabetic spouse), and disengaged (diabetic spouse solely responsible for diet).

Resources. Qualitative research has helped to understand people's perspectives on how money, time, knowledge, and skills are involved in healthy eating. Many studies focused on perspectives of people with limited financial resources who often reported that eating in healthy ways costs too much money.^{80,91,138} For example, participants in the Maubach et al study saw fruit, vegetables, meats, and cereals as expensive. They viewed "high quality" food, such as organic or natural food, as beyond their reach.⁹¹ Adolescents in London considered "junk food" as cheap and accessible.¹⁰⁰

Insufficient time is a barrier that participants frequently mentioned as related to healthy eating, often because their family schedules and work demands interfere with home-prepared meals.¹³⁹ Parents in the United States with low-wage jobs, multiple jobs, or inflexible work hours faced particular challenges with time scarcity because they have few

options to buy services for child care, household chores, and prepared meals.¹⁴⁰ Parents in low-wage positions reported different ways of coping with work and family conditions as related to feeding their children.^{140,141} Mothers in low-wage positions described different "timestyles" that varied in perceptions and management of time scarcity.¹⁴²

Lack of knowledge and skills prevents some people from eating in the ways that they see as healthy or as nutritionists recommend.^{52,80,138} Organization, planning, and skills in shopping and cooking increased the likelihood of healthy eating, especially to follow government recommendations for cooking from scratch.¹³⁸ Young people and men often reported that they were not taught to shop or cook by their families or in school.^{80,138} Hughes et al found that British men who lacked cooking skills were less likely to consume vegetables than those with good skills.¹⁴³

Qualitative methods have helped identify inadequacies and gaps in the nutrition knowledge of target audiences. For example, Brug et al reported that Dutch adults described a lack of awareness of the negative consequences of low fruit and vegetable intakes as well as poor understanding of the amounts of these foods that are recommended for health.¹⁴⁴ Rural, low-income participants in the United Kingdom seemed to have incomplete information about the connection between eating and good health.⁴³ Hispanic participants in the United States revealed misinformation about healthy eating and weight control, misinformation about the connection of dietary fat to heart disease, and fatalistic attitudes toward eating and health.¹¹¹

The changing and conflicting advice about healthy eating from experts and the media was a reason some study participants gave for not following current dietary recommendations.^{76,93} Cancer survivors also noted that the uncertainty of the evidence related to diet and breast cancer and prostate cancer as a reason for having to make their own decisions about what to do.^{128,145}

Environment. Widespread availability of unhealthy food and low avail-

ability of healthy food are reasons people of different ages and backgrounds explained for eating in ways they see as unhealthy.^{79,138,146,147}

Studies using interviews as well as observations in the community are particularly helpful in understanding environmental contexts for eating.⁶⁴ For example, adolescents and children reported the easy availability of unhealthy food and different styles of eating connected with school, home, and recreation environments.^{148,149} First Nation adolescents living in a remote subarctic community reported very limited availability and low quality of fruits and vegetables as barriers to making healthy eating choices.¹⁵⁰ Latino and African American adults reported that the high availability and aggressive marketing of excessively processed food did not support healthy eating.^{52,104}

Competing priorities. The preceding sections highlight the many conflicts people perceive between health and other considerations in food behaviors. The Food Choice Process Model,^{101,151} developed through qualitative, grounded theory studies with adults, provides a way to envision how people interpret and manage these conflicts. This model portrays people as constructing personal food systems, cognitive processes to manage all the factors affecting their ways of shopping, cooking, and eating. People construct food choice values, personally and socially meaningful sets of considerations for food behaviors, only some of which may relate to health. Commonly expressed food choice values relate to taste and enjoyment, cost, managing relationships, and convenience. A person's food choice values reflect their life course experiences and current influences including personal factors, ideals, resources, social context, and food contexts. These food choice values may be prioritized and negotiated in different ways depending on the situation, and over time people develop their own rules and strategies for making food decisions to simplify processes.^{47,97,98} People incorporate their strategies into the scripts and routines they develop for repeated eating situations.^{152,153} Routines bring stability, structure, and often comfort

to people's lives and the lives of the other family members.¹⁵³

DISCUSSION

This review focused on identifying the contributions of qualitative research toward understanding how people interpret healthy eating. The authors were impressed with the broad scope of research presenting relevant findings even within the subset of the literature that was examined. Important insights were gained from studies conducted in multiple countries, examining different cultural groups, reported by researchers in various fields, and published in a wide variety of journals.

A key finding in this review was the wide range of ways that people think and talk about healthy eating. The findings related to properties of food, physical outcomes, and ways of eating are not surprising because nutrition professionals construct healthy eating in these terms. Professionals also generally acknowledge the diversity of people's views about these topics. However, the meanings related to psychosocial outcomes, restriction/control, personalization, and normative considerations are generally less recognized by nutrition professionals.

These studies show that people's interpretations about healthy eating are not simply a set of beliefs that can be judged as correct or incorrect according to the ways that scientists discuss healthy eating. Instead, people hold complex, multifaceted beliefs and feelings about this topic that may be connected to other parts of their lives and be based on personal knowledge gained through their life experiences. Their personal knowledge may outweigh experts' views and recommendations that do not match their own.

The findings related to personal knowing link to questions of epistemology, the study of how people know what they know.¹⁵⁴ People have different ways of knowing,¹⁵⁵ and they vary in their ways of constructing knowledge, skepticism, critical thinking skills, and confidence in their own knowledge. They also differ in their interest in and ability to attend to nutrition and scientific information and in their ability to deal with changing information and conflicting expert views.¹⁵⁵

A particularly interesting and potentially important insight from this review relates to people's holistic views about healthy eating that embrace psychosocial, physical well-being, and spiritual well-being. The moral aspects of healthy eating are also of interest to health professionals, and the theme of rejecting scientific advice is a particular concern. Although findings related to these themes seemed more common in recent papers, it is impossible to know whether people's views are changing or whether researchers are uncovering or reporting themes that have always existed. Future studies should address these themes and how their specific interpretations are associated with social class, culture, personal factors, life course experiences, and/or world views.

Strong qualitative research is needed to explore the themes of holistic health and morality, as discourse about healthy eating is often burdened with unstated assumptions, norms, and political correctness. Researchers must work to avoid framing the conversation from the health professional's perspective, establish rapport, ask probing questions, and listen with an open mind. Analysis must be receptive to the themes outside the traditional scientific ways of constructing the topic. Broadly reading the literature and collaborating with researchers outside the field of nutrition will enhance this work.

The dynamic and evolving nature of how people understand and act on their ideas about healthy eating over their lives is revealed in the studies of life stages and life course. Past experiences inform and serve as reference points for how people approach healthy eating. People may be more or less open to new ideas over their lives depending on the continuities that are important to them or the reasons or opportunities that they have to approach eating in different ways. In contrast, scientists are much more present and future oriented when they consider making recommendations as they evaluate the most recent evidence about how ways of eating can promote health and quality of life. Scientists can more easily discard ideas that are proven wrong or have outlived their usefulness, but these shifts may be unsettling and raise skepticism for the lay public.

Nutrition educators must recognize the diversity and dynamic nature of people's belief systems related to healthy eating as well as their different ways of knowing. In communicating information through mediated sources, group sessions, or individual counseling, nutrition educators need to remember that people will receive the information differently depending on their trajectories of experience related to food and health, and that these trajectories may be based on group characteristics or individual attributes.

Qualitative studies have been useful in identifying and understanding the reasons why people cannot act on their healthy eating ideals. Findings reveal that identity, culture, and social factors are important reasons that warrant more attention from researchers and practitioners. That resources and environments prevent people from eating in healthy ways is not news. However, qualitative studies help understand how resources may interact with each other and with other factors such as identity, culture, social factors, and life course transitions. Studies reveal both within- and between-group differences and help explain why some people are more successful than others in using resources.

The grounded theories developed through qualitative research provide frameworks for anticipating and organizing the multiple, diverse, and interacting factors and processes that are part of people's experiences related to healthy eating. In this way, grounded theories specific to food and eating contribute to the toolbox of concepts and perspectives that nutritionists have drawn upon from existing social science theories and frameworks.

This review integrated theoretical, methodological, and empirical literature to highlight the ways that qualitative research has advanced understanding of how people interpret healthy eating. A key goal was to provide researchers and practitioners with insights, information, and references to advance their own work.

The review was not intended to provide a definitive answer to how people interpret healthy eating or answer a particular question to guide policy

or practice, as is more common in a meta-analysis or qualitative research synthesis.^{156,157} To do such an analysis, a much more comprehensive study is needed that would include qualitative and quantitative studies reported in journals as well as data reported in books and other sources. The inclusion of studies from all countries, intervention projects, and those addressing poverty and eating disorders would also be important.

Aside from noting that the evidence in the reviewed papers supports the view that people generally consider fruits and vegetables as healthy food and that people often describe healthy eating as challenging, integrating the findings across the papers is problematic. Though some researchers explored interpretations of healthy eating across people of different genders, socioeconomic status, locations, and cultural groups within their own projects, it is difficult to compare the different studies to examine interpretations across time, regions, and countries. These studies generally used purposeful rather than representative samples. Understanding how people interpret healthy eating was not the main focus of many of the studies reviewed, so studies did not address this topic in the same way or in the same depth. Instead, people's views of healthy eating emerged in the context of other questions.

The methods used in this review are generally consistent with those recommended for a qualitative research synthesis.^{156,157} However, the review did not intend or attempt to weigh the importance of different findings by evaluating the number of studies or each study's strengths and limitations. This review grouped findings from focus groups, individual interviews, and other data collection methods as it explored meanings for healthy eating. This approach is in keeping with qualitative researchers' appreciation for multiple realities and the value of examining phenomena from multiple perspectives.¹⁵⁸ To broaden readers' understanding, the review gave somewhat more attention to new directions and new insights gained through qualitative research on this topic.

This review shows the power of qualitative research to uncover mean-

ings related to healthy eating that are beyond what nutrition professionals usually consider. The constructivist or social constructionist philosophy enabled researchers to be open to the ways that people varying in culture, age, social setting, resources, and health status experience food and eating. The discourse analysis perspective further emphasizes the merits of encouraging candid and natural discussion with participants followed by careful analysis.

The need for qualitative studies to examine people's interpretations of healthy eating will continue. As nutrition scientists continue to develop recommendations for healthy eating over time, people's own interpretations of healthy eating will also change, as they are situated in their personal, cultural, social, and historical contexts. Nutrition education will benefit by encouraging qualitative research, supporting the publication of qualitative studies, and having specialists who stay abreast of the philosophical and methodological developments in this complex and emerging field.

A limitation of this review is that the authors examined only a subset of the relevant literature. The papers, reports, books, and dissertations that were intentionally excluded or inadvertently missed in the search processes would have provided additional insight on the topic, as would papers not related to nutrition but more generally related to health, culture, and lifestyle. How people interpret healthy eating was not necessarily the main focus of many of the papers that the authors examined, and in extracting the relevant material from these papers, the authors may have inadvertently taken material out of context. As many of the studies were conducted to inform interventions or nutrition practice, the review likely emphasizes the views of persons at risk for nutrition problems resulting from medical conditions and/or limited resources compared to the views of people not in these groups. The review reflects the authors' own orientations and interpretation of what was important and relevant. The text highlights selected examples of studies even though other studies contained relevant examples.

Finally, given the scope of this paper, only limited attention could be given to themes, each of which deserves its own literature review. Readers are referred to other reviews of healthy eating topics that have addressed some similar themes incorporating qualitative and quantitative studies,¹⁵⁹⁻¹⁶³ or to reviews focused on particular aspects of healthy eating, such as food safety or gender.¹⁶⁴⁻¹⁷²

CONCLUSIONS

Since 1995, qualitative researchers working in many different fields and countries have made important contributions to understanding how people interpret healthy eating. Their work has revealed the multiple, diverse, and intersecting themes involved in lay considerations about this topic as well as new conceptual frameworks. Findings provided useful insights for interventions and for further investigation through qualitative and quantitative studies. The philosophies and methods of qualitative research warrant continued use and development in nutrition education. Qualitative research has particular power to expand the ways educators and researchers think about their work and to make them more sensitive and insightful in understanding their audiences and working with them in meaningful ways. Additional reviews of how qualitative research is contributing to the understanding of nutrition education and behavior are needed.

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***JNEB* congratulates the award winners for the 2012 Best Article**

**Hayden Stewart, PhD; Jeffrey Hyman, BA; Elizabeth Frazão, PhD;
Jean C. Buzby, PhD; and Andrea Carlson, PhD**

are the recipients of the *JNEB* Best Article Award for their article:

Can Low-income Americans Afford to Satisfy MyPyramid Fruit and Vegetable Guidelines?
Volume 43, Issue 3 (May/June 2011)



JNEB Best Article author, Dr. Hayden Stewart, Economist for the United States Department of Agriculture, will present the findings from this article at the George M. Briggs Nutrition Science Symposium during SNEB's annual meeting in Washington, DC. Please plan on joining us for this presentation on Monday, July 16th at 11:30 AM.

A podcast interview with Dr. Stewart about his winning article is available on www.jneb.org, or just scan the QR code (right) with your smart phone.

