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A comprehensive approach to understanding cooking behavior: Implications for research and practice

Julia A. Wolfson, Stephanie Bostic, Jacob Lahne, Caitlin Morgan, Shauna C. Henley, Jean Harvey, Amy Trubek,

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Implications for research and practice

Julia A. Wolfson
Department of Health Management and Policy, University of Michigan School of Public Health, Ann Arbor, Michigan, USA
Stephanie Bostic
Division of Nutritional Sciences, Cornell University, Ithaca, New York, USA
Jacob Lahne
Department of Culinary Arts and Food Science, Drexel University, Philadelphia, Pennsylvania, USA
Caitlin Morgan
Department of Nutrition and Food Sciences, University of Vermont, Burlington, Vermont, USA
Shauna C. Henley
Baltimore County Extension, University of Maryland, Cockeysville, Maryland, USA, and
Jean Harvey and Amy Trubek
Department of Nutrition and Food Sciences, University of Vermont, Burlington, Vermont, USA

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Abstract

Purpose – The purpose of this paper is to describe the development of – and need for – an expanded understanding of cooking (skills and knowledge) to inform research on the connection between cooking and health.
Design/methodology/approach – This paper describes a concept of "food agency" and contrasts it with how cooking is commonly conceived in food and nutrition literature. A food agency-based pedagogy and proposals for using it are also introduced.
Findings – Cooking is a complex process that may be crucial for making a difference in the contemporary problems of diet-related chronic diseases. There are two interlinked problems with present research on cooking. First, cooking has yet to be adequately conceptualized for the design and evaluation of effective public health and nutrition interventions. The context within which food-related decisions and actions occur has been neglected. Instead, the major focus has been on discrete mechanical tasks. In particular, recipes are relied upon despite no clear evidence that recipes move people from knowledge to action. Second, given the incomplete theorization and definition of this vital everyday practice, intervention designs tend to rely on assumptions over theory. This creates certain forms of tautological reasoning when claims are made about how behavior changes. A comprehensive theory of food agency provides a nuanced understanding of daily food practices and clarifies how to teach cooking skills that are generalizable throughout varied life contexts.
Originality/value – This commentary is of value to academics studying cooking-related behavior and public health practitioners implementing and evaluating cooking interventions.

Keywords Pedagogy, Interventions, Cooking, Food preparation, Food agency, Food provisioning
Paper type Conceptual paper

Introduction

Planning, provisioning and cooking food to make palatable meals is a constant of everyday life. For most of human history, much of this work has been linked to gender: this was woman's work (Bowers, 2000). In contemporary households, however, these tasks are increasingly no longer the sole responsibility of women (Bowers, 2000; Short, 2006).

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Other people (or companies) can do this work, and people can use purchasing power to take care of any or all steps in the process of putting meals on the table (Bowen *et al.*, 2014; Short, 2006; Shapiro, 2004). Increasing scholarly interest in the identity of the cook and the practices that define cooking reveals certain discrepancies between food preparation aspiration and action. In empirical observation and research (Renner *et al.*, 2012; Sobal *et al.*, 2014; Engler-Stringer, 2010b; Vidgen and Gallegos, 2014), some individuals appear to be able to set and achieve goals related to food and cooking, while others struggle to do so. Why?

In prior research – involving ethnographic videotaping people cooking at home, open-ended interviews, as well as large, survey samples (forthcoming) – this group has developed a framework for understanding cooking that incorporates an individual's acquired capacity to actively employ a broad range of learned cognitive, social and technical actions related to meal preparation. This framework, called "food agency," is similar to the recently developed concept of "food literacy" (Vidgen and Gallegos, 2014), which recognizes the context in which daily food preparation takes place and the multiple domains of food management skills and knowledge. Food agency goes a step further to include this broad array of actions and capacities, and emphasizes the vital role of repeated, skilled actions – assumed and unenunciated by other approaches – in developing those capacities and advances understanding in regards to such processes as a type of embodied knowledge.

Food agency depends on the development of an individual experience based in thoughtful actions, incorporating muscle movements, senses and cognitions that can then be readily adapted as needed. A person cooking a meal develops and practices food agency by acting to combine manual and cognitive skills while responding to their sensorial perceptions and simultaneously navigating and shaping societal structures (e.g. time, money, mobility), as they set and meet personal food preparation and eating goals. Thus, food agency places cooking and food preparation within a framework of practice theory (Lave, 1988; Ingold, 2000).

Helping people to cook meals at home more frequently or more healthfully has been proposed as a solution to rising rates of diet-related, public health problems (obesity, diabetes, cardiovascular disease, food insecurity, hunger, etc.), and has been the subject of an increasing number of research studies and interventions (Hartmann *et al.*, 2013; Hersch *et al.*, 2014; Monsivais *et al.*, 2014; Reicks *et al.*, 2014; Wolfson and Bleich, 2015; Rees *et al.*, 2013; Condrasky *et al.*, 2011). However, cooking is a complex process, and the ability to cook – and cook healthfully – is based on more than a set mechanical skills or a prescribed knowledge base (Vidgen and Gallegos, 2014). Moving to a framework based on food agency allows for an understanding of cooking based on complex navigation rather than fulfilling discrete tasks. The objective of this paper is to introduce the concept of food agency and make the case for a broader understanding of cooking and the complex actions and capacities required for daily (healthy) meal preparation.

Existing cooking skills interventions

While research on cooking skills has expanded in recent years, there remain some concerns due to assumptions about the context and nature of such skills. These assumptions can sometimes be too narrow and too prescriptive. When assumptions about cooking skills are not grounded in theory, they unintentionally shape the development and evaluation of interventions designed with the intent to shift or enhance the practices of participants. In some cases, interventions and/or evaluation measures are informed by theory, often social cognitive theory, but this is rare (Mcgowan *et al.*, 2015; Brooks and Begley, 2014). Though not always the case, interventions too often focus on cooking as a manual skill. Neglected, but equally important are the cognitive, sensorial and organizational skills necessary to navigate the socio-cultural and physical food environments in which food

provisioning and preparation occurs (Fordyce-Voorham, 2011; Vidgen and Gallegos, 2014). The focus on discrete mechanical skills presents challenges for measurement of intervention elements and expected outcomes and limits the development of a robust body of evidence examining the true relationship between cooking practices, diet quality and health outcomes (Mcgowan *et al.*, 2015). Major factors affecting the interpretation of results from recent literature are reviewed below, including conceptualization of the concepts, and selection of measures and outcomes (Reicks *et al.*, 2014; Rees *et al.*, 2013).

First, there is an inherent problem in defining a set of basic, acceptable or core cooking skills because these are powerfully influenced by culture and context (Sutton, 2014). Projects that promote interventions while failing to clearly define cooking skills or describe how learning objectives are operationalized within their intervention impair other researchers' and practitioners' abilities to replicate and test an intervention within research, clinical, community and teaching settings.

Second, cooking skills are rarely presented as the sole component of an intervention (Mcgowan *et al.*, 2015); most incorporate other components, ranging from complementary skills like food budgeting (Flego *et al.*, 2014) to more broad topics like nutrition (Wrieden *et al.*, 2007), exercise (Flesher *et al.*, 2011), mindfulness (Carmody *et al.*, 2008), parenting (Robson *et al.*, 2016) and disease-specific management (Archuleta *et al.*, 2012; Barak-Nahum *et al.*, 2016; Flesher *et al.*, 2011). The impact of teaching cooking skills alone is unclear in these studies. Some interventions incorporate elements (such as food budgeting (Flego *et al.*, 2014), grocery shopping (May *et al.*, 2014), reading labels (Dannefer *et al.*, 2015) or mindfulness (Carmody *et al.*, 2008)) that speak to the multi-faceted and contextual nature of cooking within a food-agency framework, which might indicate an implicit understanding of the complexity of the skills and behaviors needed for everyday food preparation. Unfortunately, these more complex interventions are usually based on a "kitchen sink" approach – including any education elements that seem like a good idea – rather than using an elaborated framework, or an established behavior change theory, for understanding cooking practices (Brooks and Begley, 2014). Cooking skills may have substantial influence on outcomes alone, may have a synergistic effect when presented with related material, or have a minimal effect when provided as a single component intervention.

Third, conceptualizing and assessing the outcomes of cooking interventions remains a challenge. Without clearly defined and valid outcome measures, it is difficult to assess the success of a project in broadly improving either cooking skills or health. Outcomes included in evaluations vary widely and have included self-reported vegetable consumption (Hartmann *et al.*, 2013; Ohly *et al.*, 2013), body mass index (BMI) (Marshall and Bell, 2004), quality of life (Barak-Nahum *et al.*, 2016) or biomarker levels (Reicks *et al.*, 2014). While some of these outcomes are directly related to the cooking skills taught in the intervention, others may not directly reflect successful transfer of cooking skills. For example, frequency of eating out (Robson *et al.*, 2016) does not reflect level of cooking skills or the practice of cooking at all, as one could be a highly skilled cook but still eat out frequently. If researchers clearly operationalized the concept of cooking in all its complexity and connected it to their intervention curriculums, impacts in specific areas of cooking skills (such as manual knife skills, improvisation with vegetables or planning the steps of meal preparation prior to beginning cooking) could more easily be evaluated. Furthermore, change in these components could then more easily be related to changes in eating behaviors and overall health.

The wide range of measures used to assess cooking skills and practices, which are often self-reported and rarely validated, present another challenge for evaluating cooking interventions. Cooking-related measures are often unique to the project, and may be dependent on the researcher's notions of healthy cooking. For example, Hartmann *et al.* (2013) created a scale that included preparing a gratin and baking bread, and Condrasky's (2011)

scale includes preparing green vegetables, while others include using low-fat cooking methods (Raber *et al.*, 2016). Bell and Marshall (2003) created a "Food Involvement Scale" that asks about subjects' interest in food preparation, eating and clean-up. Some studies measure a component taught during the intervention, such as reported confidence cooking a particular recipe used in a class (Wrieden *et al.*, 2007). Without validated measures that can be used among the culturally diverse populations found in today's areas of need, comparisons across interventions and programs are difficult.

Psychosocial cooking measures are often assessed using constructs such as cooking confidence or cooking self-efficacy (Flego *et al.*, 2014). Other studies report cooking attitudes and knowledge (Robson *et al.*, 2016; Hersch *et al.*, 2014), but specific measures vary between studies, limiting comparability. Some studies assess broader outcomes, like a quality of life index (Barak-Nahum *et al.*, 2016) or biological measures such as BMI, blood pressure, urinary sodium and protein, or cholesterol particularly among study samples with a diet-related health condition (Reicks *et al.*, 2014). New, theory-derived scales based on a comprehensive paradigm for cooking and food preparation would improve comparability of outcomes across studies.

It is possible that the ability to follow a recipe or chop the perfect onion with the correct knife has nothing to do with lowering cholesterol levels, whereas the ability to plan time for meal preparation and the acquisition of healthy ingredients does. Here again, the need for a more comprehensive theoretical basis for the skills and capacities needed for food preparation and how those skills may be related to healthy eating and health outcomes is evident: why are some skills or behaviors important, while others are not? A shift toward a more comprehensive way of thinking about the skills, knowledge and behaviors needed to achieve food and health goals will open up a range of outcomes that may be crucial for shaping the way people eat. As stated previously, some of these outcomes may be directly related to cooking skills and behavior. Others may be related to procurement and consumption but not related to actual food preparation at all.

Study designs, the types of intervention – delivery method and components – and the length of the interventions all vary widely. Cooking interventions range from a single demonstration, to self-exposure to online videos (Clifford *et al.*, 2009), to multi-month and hands-on experiences (Keller, 2004). Many interventions are designed with six to ten weeks of weekly sessions lasting 90-120 minutes. Hands-on activity time in which participants develop and practice skills, relative to lecture or demonstration time, is not typically reported. Optimal duration and type of learning experiences are not currently known, though some evidence suggests that active learning and hands-on participation is preferable (Levy and Auld, 2004). A more comprehensive and theory-based approach that carefully considers broader cooking and related food preparation measures important for healthy eating would help facilitate the design, implementation and rigorous evaluation of cooking interventions to promote healthy eating behavior and perhaps, improved health outcomes.

The complexity of defining "cooking"

In the modern industrial food system in which pre-prepared and processed foods are ubiquitous, the definition of "cooking" is anything but straightforward. While cooking has traditionally been defined as preparing food by transforming raw ingredients using heat (*Oxford English Dictionary*, 2015), the diversity of products and technologies available today adds complexity and ambiguity to what the act of cooking can be and how cooking should be defined and measured.

Meals prepared at home can include only fresh or scratch ingredients or they can be a frozen dinner zapped in the microwave. In both instances food is prepared, but, for most people, only the first example would be considered cooking (Wolfson, Bleich, Clegg Smith and Frattaroli, 2016; Wolfson, Smith, Frattaroli and Bleich, 2016; Short, 2006;

Lavelle *et al.*, 2016). For most people, everyday meal preparation typically falls somewhere in the middle of these two extremes (Lavelle *et al.*, 2016; Wolfson, Bleich, Clegg Smith and Frattaroli, 2016; Wolfson, Smith, Frattaroli and Bleich, 2016; Short, 2006; Beck, 2007).

Everyday food preparation spans a continuum with all fresh/scratch cooking on one end, and totally pre-prepared food on the other end. Depending on where a meal falls on that continuum, and how the food is prepared (e.g. microwave, stove, oven or not using heat at all), whether or not that food preparation is called cooking can vary widely (Wolfson, Bleich, Clegg Smith and Frattaroli, 2016; Wolfson, Smith, Frattaroli and Bleich, 2016; Beck, 2007). Convenience foods ("any fully or partially prepared foods in which significant preparation time, culinary skills or energy inputs have been transferred from the home kitchen to the food processor and distributor," Celnik *et al.*, 2012, p. 4) are widely available, frequently used and complicate efforts to define cooking. Many Americans use convenience foods and scratch ingredients within the same meal (Beck, 2007), and incorporate pre-processed or ready-prepared convenience food products into their definitions of cooking (Wolfson, Bleich, Clegg Smith and Frattaroli, 2016; Wolfson, Smith, Frattaroli and Bleich, 2016) and homemade food (Moisio *et al.*, 2004). Furthermore, people differentiate between different kinds of cooking: everyday or special occasion, scratch cooking or cheating cooking, real cooking or just putting a meal on the table, cooking for enjoyment or cooking because you and your family have to eat (Short, 2006; Kaufmann, 2010; Stead *et al.*, 2004). All of these factors complicate efforts to categorize, quantify, assess and modify cooking skills and behavior.

A more complex definition of cooking that extends beyond traditional scratch ingredient preparation requires a broader definition of the skills needed to procure and prepare food (Short, 2006; Engler-Stringer, 2010a; Caraher and Lang, 1999; Vidgen and Gallegos, 2012, 2014). Food preparation and cooking skills obviously include technical food preparation (e.g. boiling, sautéing, chopping) but also a complex set of other managerial, organizational, perceptual and conceptual abilities that entangle the cook in a complex of economic, social, cultural and temporal structures. In an everyday practice like cooking, especially one closely associated with traditional gender roles, these other skills have been treated as forms of tacit knowledge that do not need to be addressed explicitly: relegated to home-economics courses (Cunningham-Sabo and Simons, 2012; Peregrin, 2010), if addressed at all in education. However, as is captured to some extent by the concept of food literacy (Vidgen and Gallegos, 2014), all of these abilities and skills are important in order to navigate one's food environment: planning meals, procuring ingredients, managing time and resources, following recipes, and, of course, preparing the food.

This research group seeks to broaden the more traditional – and arguably undertheorized – definition of cooking with an explicit incorporation of such abilities developed through repeated, thoughtful actions. Cooking with agency, thus, is an emergent and contingent result of everyday navigation, an interaction between repeated activity, material objects and acting subject (Ingold, 2000). In this usage, skill is universal and democratic; a skillful act does not have to look a certain way or incorporate a specific set of social or cultural norms. Cooking with agency is as likely to occur alone over a campfire as at a Norman Rockwell-Esque dinner table serving a meal meeting current governmental dietary guidelines. Food agency facilitates the capacity to act throughout the course of planning and preparing meals within one's particular food environment.

Understanding cooking through a framework of 'food agency'

The concept of food agency is directly related to sociological, anthropological and psychological theories of "agency" (Bandura, 2006; Merlan, 2016; Hitlin and Elder, 2007)

describing an individual in constant correspondence and negotiation with social structures and values. Thus, to study cooking is to study a skilled practice in relation to social and cultural contexts and constraints, rather than simply a set of mechanical and individualized skills. Anthropologist Francesca Merlan, recently defined agency as "a generative capacity, a lived relation between conditions and forms of human action" (Merlan, 2016, p. 392). Albert Bandura's (1982) psychological theory of human agency accounts for an individual's ability to intentionally set and achieve goals that bring meaning and purpose to her life (Bandura, 2006). According to Bandura's (1982, 2001, 2006) theory, agency itself rests on a foundation of four key cognitive processes: intentionality, forethought, self-reactiveness and self-reflectiveness. Although Bandura (2001) argues that self-efficacy is essential to agency, a truly capable cook has both the skills and the self-confidence to act. Thus the essence of agency moves beyond an assertion of ability to an internalized and intrinsic capacity to "get the job done;" in this characterization, to possess food agency (rather than food literacy or self-efficacy) means a cook can reflexively navigate broader sociostructural influences; in order to accomplish her goal, the cook responds to the larger environment in everyday cooking decisions and actions (Bandura, 2001).

Any and all cooks, in this characterization, are active and the range of activities required for meal preparation need to be accounted for in any definition of cooking while also being integrated into any interventions (Bandura, 2006; Hitlin and Elder, 2007). Food agency develops from a combination of individual- and societal-level factors, and has the potential to shift with alterations in personal and society-wide circumstances. Individual culinary knowledge develops from social contexts, for example childhood socialization within families (e.g. living in a family where parents prepare meals from scratch and frequently involve children in food preparation) or educational settings (e.g. exposure to cooking/nutrition classes), or socio-cultural expectations (learning to become the primary cook in a new household upon leaving the parents' home or having children) or media exposure (e.g. food television, marketing) as an adult. Changes in both external factors, such as moving households, changing jobs, or changing income, and internal factors, such as alterations in mental health and feelings of family obligations, are commonly recorded during adulthood. Recognizing these factors and the importance of the skills needed to adapt to them when managing food and cooking is essential for progression of the theorization of cooking and application of the theory (Hitlin and Elder, 2007).

This concept, therefore, integrates the practical, hands-on, basic components of cooking with cognition while recognizing that the individual's agency is shaped by both internal personal factors and external structural factors. For example, organization (of the cooking process, of the work space, of provisioning) is a cognitive practice that assists in the ability to fulfill mechanical tasks as well as navigate the greater food environment. Other cognitive practices that cooks regularly employ include incorporating individual culinary knowledge with their personal guidelines or standards, using their previous experiences as a reference, and reflexively employing their senses and perceptions to modify their actions during food preparation. Examples of internal personal factors include the experience level of the cook and the cook's mindset, while external structural factors might include access to kitchen facilities, work schedules and transportation access, and social and political structures affecting the food system. Food agency is visible through food management practices, particularly cooking approaches and in turn facilitates meal preparation.

Food agency-based interventions and evaluations

Thus, preparing and consuming a healthy diet over one's lifespan requires more than the technical ability to chop vegetables, sauté a piece of fish or follow a recipe. Rather, a complex

set of deliberate procurement, budgeting, organizational, conceptual, and decision-making skills, specific to an individual's context and environment, are required. Based on the critique of the current cooking interventions, a thoughtful alternative is needed that moves beyond current knowledge-based paradigms, from older home-economics models, through newer ideas of food literacy, to fully embodied agency. A food agency-based approach would support moving beyond technical skills and nutrition information to teaching individuals how to successfully navigate the many daily barriers that might prevent them from achieving their provisioning and nutrition goals. Interventions that incorporate a food agency-based teaching pedagogy would recognize that the social and cognitive components of cooking require developing a complex and flexible approach to interacting with one's food environment, as well as time and resource constraints, in order to facilitate the development of an expansive set of decision-making and organizational skills. Interventions and education programs should be based on a definition of cooking expanded to include food agency, tailored to diverse populations, emphasizing adaptability and rigorously evaluated based on a comprehensive set of outcomes.

This challenging task has begun to be undertaken by developing a food agency pedagogy, now used to instruct students taking food-related courses (Basic Concepts of Foods, Environmental Cooking or Food and Culture) at the University of Vermont. This pedagogy for teaching cooking both reflects and reinforces the concept of food agency through the use of core elements that seek to enhance cooking as a type of embodied knowledge; students become actors and not receivers. First, there is an explicit commitment to repetition as a powerful means of gaining embodied knowledge about all aspects of meal preparation. Hands-on activity time is consistent from week to week, and there are specific skills and abilities required in each lesson to reinforce understanding and build toward mastery. Some examples include organization through *miser-en-place* (the concept, essential in restaurant kitchens, of organizing everything the cook needs to execute the dish or meal being prepared with maximum efficiency) and knife skills that are reinforced each week and also made more complex as the weeks progress. This format involves an emphasis on organization before action (recipe analysis and miser-en-place design), collaborative learning over the course of meal preparation, sensory analysis and reflection on execution. Students always work in pairs, learning through conversations and the back and forth decision-making that must happen in order to successfully execute a dish or a set of dishes. Finally, all students sit down at the end of each session and share their food, for all the complex tasks involved in cooking share a similar end, a sensory and social experience of commensality. Each shared meal is structured; everyone must smell and taste the result of multiple pairs, learning to compare and contrast, developing ideas as to what makes a dish work, what makes a dish taste good, what can be changed in the next iteration of the dish, how a dish relates to personal experiences and palate.

All these strategies emphasize skill acquisition through repetition and a recognition of cooking as an activity within the context of larger individual life and social structures. Food agency pedagogy strives to make the cook the active agent; for example, whenever a recipe is used, students are always instructed to think critically about how and why the recipe works, how to be flexible and adjust the recipe if the exact same ingredients are not available, and how to adapt and adjust when things do not go as expected in the kitchen. There are few moments of didactic instruction, with an "expert" telling others how to cook; rather, the entire pedagogy allows students to enact the very actions, reactions, cognitions and adjustments that happen in real time, in real homes, in many different settings. The cooking skills and food agency developed through this pedagogy build resilience and the ability to adapt to the challenges to food preparation people encounter each and everyday.

The format of the pedagogy developed at the University of Vermont can be used as a basis for a standardized set of intervention components to be tested widely in future research. While the pedagogy was developed primarily among college students, the pedagogical approach explicitly integrates cognitive abilities with the employment of mechanical cooking skills, under purposively varied circumstances, including limited time, money, equipment or ingredients. Future research should evaluate this approach by deploying it in populations with diverse socioeconomic factors, life stages and different cultural backgrounds. Exploring how individuals apply their acquired food-agency skills and adapt throughout life stages within specific circumstances, particularly restricted ones, would also add insight into the complexity of cooking. In addition, the flexibility of the pedagogical structure itself could be investigated, by varying the lengths of individual classes, the specific technical cooking skills conveyed and the course venue.

Such interventions present an opportunity for future qualitative and quantitative research to explore how to best meet the needs of diverse populations that face different challenges in their daily food preparation. Because much of the current literature (described above) evaluating cooking skills interventions are limited by lack of a theoretical basis for the cooking skills taught and the behavior change measured, more rigorous study designs incorporating randomization, control groups and long-term follow-up will contribute to stronger outcome analysis. Detailed process and implementation research with existing programming is a needed complementary approach to randomized control trials that will be important to expand knowledge about how the components of interventions work. Assessments of intervention fidelity, such as personnel adherence to the curriculum or program design, is particularly important with larger programs. All studies should report on the exposure to components of the intervention received by participants. Implementation and process evaluation is particularly important given the diversity of the target populations for cooking skills interventions: college students, low-income adults, ethnic and racial minorities, older adults, parents, youth and those with diet-related conditions. Many projects are community-based, in both rural and urban areas, and often in socio-economically disadvantaged environments which present particular challenges for recruitment, implementation and retention. A new measurement scale, based on the theory of food agency, could be useful for evaluations of interventions designed to increase food agency, as will additional qualitative and observational, ethnographic research methods.

Creating an integrated pedagogical approach that allows participants to learn meal preparation and mitigates the barriers preventing people from enacting the knowledge and skills involved in cooking will be essential for supporting population-wide increases in food agency. Strategic collaborations with a variety of agencies, from local to national levels, working with vulnerable populations in settings ranging from very rural to highly urbanized will offer the opportunity for participants to benefit while educators and researchers evaluate the plasticity of the food agency pedagogy proposed here. Local public health departments, university outreach programs like the Extension Service in the USA, secondary and vocational education sites, and community centers all offer potential partnerships where hands-on experiential learning-based projects may be possible. The growth of retail-based nutrition programming also offers a potential venue for public-private partnerships for programming. Each of these venues will offer a unique context for exploring food agency. Combined with a rigorous program design and evaluation protocol, these interventions will provide researchers and practitioners with a growing body of evidence to guide future efforts to build a society that supports the development of culinary capacities while minimizing the myriad and interrelated barriers that limit people's ability to prepare and consume healthful meals. Regardless of the venue, the next wave of cooking skills interventions must be based on a broader and more comprehensive understanding of the skills and capacities involved in the act of meal preparation.

Conclusion

In conclusion, a more flexible and broad conceptualization of what it means to cook and the skills and knowledge necessary to make healthy food decisions is necessary to accurately reflect the complex reality of how individuals navigate the multiple, interrelated factors that influence the foods we eat. The food agency framework encapsulates these complexities and, this research group believes, is useful for making sense of the complex web of structural, environmental, social and cultural factors that influence cooking and eating behavior. This theory-based approach allows for a more nuanced understanding of daily food practices and clarifies the role of cooking within such a framework. Future cooking-related interventions may benefit from incorporating this broader theory-based perspective and pedagogy into interventions and evaluation frameworks. Future research should use qualitative and quantitative methods to empirically test, in diverse populations, whether a food agency-based approach is, as this group hypothesizes, more effective at changing everyday food preparation and consumption behavior than the typical cooking task and recipe-based interventions.

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Corresponding author
Julia A. Wolfson can be contacted at: jwolfson@umich.edu