

Published in final edited form as:

Ann Behav Med. 2009 December ; 38(Suppl 1): S74–S80. doi:10.1007/s12160-009-9123-6.

Contributions of the Life Course Perspective to Research on Food Decision Making

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Abstract

Background—The life course perspective (LCP) has emerged as a powerful organizing framework for the study of health, illness, and mortality. LCP represents a “whole life” analysis perspective which originated in the field of sociology.

Methods—Its concepts are increasingly applied to understanding the development of chronic disease over long periods of time in the human life span. A missing link, however, in the adaptation of the LCP to health research, is the insight the LCP may offer into understanding the societal, social network, and family contexts that frame stability and change in dietary behavior.

Results—This paper reviews key concepts that comprise the LCP but primarily focuses on applications that have relevance to food decision making in social context. A case study of chronic work–family stress and perceived time scarcity as barriers to dietary improvement is included.

Conclusion—Illustrative findings are presented on dietary behavior in a diverse sample of lower-income working parents. This paper also offers ideas on increasing the contributions of the LCP to nutritional research.

Keywords

Life course perspective; Food decision making; Work–family stress

Introduction

Ecological approaches to food decision making emphasize the role of peer social networks [24, 26] and social activities such as family meals in shaping food preferences and dietary intake [45, 46] in families. The life course perspective adds the key concepts of age, historical time, and timing in the life course to the ecological approach [16].

The main argument of this paper is that increased use of principles of the life course theoretical perspective has the potential to promote new translational research on family food decision making that will bridge the gaps between basic research and practice. The

paper reviews extant research that has applied the life course perspective (LCP) to food choices and dietary behavior. A case study of chronic work–family stress and perceived time scarcity as barriers to dietary improvement is included for illustrative purposes. The paper concludes with suggestions for future research.

Key Concepts of the Life Course Perspective

The life course perspective is a holistic approach to examining the lives of people over time. It includes continuities and stability on the one hand and changes and transitions, in relationship to larger social, economic, and historical contexts that influence both continuity and change on the other [20, 21]. LCP is comprised of a set of organizing principles and concepts that guide its general approach. Five key concepts that have been frequently applied in life course research on health are trajectories, transitions/events, cultural and contextual influences, timing in lives, and adaptive strategies. The concepts are flexible enough to have bridged disciplinary boundaries [26, 47, 51, 56], crossing from sociology (the originating field) to psychology, public health, and medicine.

A critical component of the life course perspective has been an emphasis on the relationship between individual development and ecological factors such as social locations, social institutions, social and peer networks, and families [20, 21]. Research utilizing the LCP is focused on examining stability across time in attitudes and behaviors, factors that lead to change in stable patterns, and the interplay of personal and social factors that are associated with both stability and change in relationship to larger societal, economic, and historical contexts. Observational studies of dietary behavior that have been influenced by the life course perspective incorporate social locations and factors such as work conditions [19], life history [13], historical time [12], and economic constraints such as a low-wage work [19].

Trajectory

A trajectory is a stable pattern of behavior or health across time. In health research on chronic disease, the trajectory is typically defined as an accumulation of risks [11, 39] and physical wear-and-tear or “weathering” [27] that results in earlier onset of chronic disease. However, the concept of trajectory can also be applied to the accumulation of advantages or amassing of protective factors [32], such as social capital [49], and social resources in families [36, 61] within social networks, and across whole communities [4, 5]. Family and other life transitions are the major points at which trajectories of typical behavior can change [54], and there is evidence of this being so for dietary behavior. For example family food decision making may take a different trajectory when children develop new food preferences based on exposure to school and peers [24]. Understanding the trajectory of food decision making in families and the stability it implies should be balanced by understanding how existing trajectories are modified and changed by role and life transitions that occur.

Transitions

A transition is a change in social roles or responsibilities that increases or decreases demands in the associated social role, such as marriage, the birth of a first child, or a job change. A body of research on dietary change during life transitions has provided important clues to how changes in nutritional habits can come about naturally along the course of life [13, 17, 48]. For example the birth of a child may be a transition that results in greater physical and emotional demands. These greater physical and emotional demands might impact on how well individuals can manage other obligations from work and other activities [44].

Expected transitions are particularly interesting because they can be the result of planning. They are often seen as the accomplishment of life milestones, such as finishing school, re-

marrying, or the birth of a child. Families can plan ahead for these adjustments. Expected transitions, such as the birth of a child, can encourage mothers to improve their food choices as a way of maintaining health and energy. The birth of a child might also result in the family eating healthier if the goal is to feed their children a proper diet [14, 15, 59]. On the other hand expected transitions might also have negative impacts as in the case of someone preparing for the end of employment due to a planned surgery resulting in changing diet patterns to accommodate expected loss of income.

Unexpected transitions are those that come on without planning, or come abruptly, such as job loss, a financial reversal, or death of a spouse: usually the impact of an unexpected transition is objectively negative as well as perceived as highly negative. For example unexpected transitions that lead to financial hardship can reduce access to preferred foods, as well as healthy foods such as fresh vegetables. It is important to note however that sometimes unexpected transitions can have a positive impact as in the case when the spouse gets an unexpected job promotion that leads to relief of financial burdens and increased opportunity to purchase better quality foods [22, 23, 42]. In general, unexpected events are viewed as increasing vulnerability to other shocks [32].

Cultural and Contextual Influences

Cultural and contextual influences are external factors that influence the process of change and adaptation over the course of life. Research on health has emphasized socioeconomic status (SES) as an external contextual influence that affects both health and health behaviors [3, 34, 39–41]. The LCP has included not only SES which is typically described as income, educational attainment, and occupation, increasingly includes life history of economic status [34, 41], but also neighborhood factors such as crime and organizational resources, and exposure to chronic stressors [40]. The LCP also takes into consideration influence by neighborhoods, peer groups, institutional supports, and other types of social capital [49, 61]. An example of social capital influence can be found in living partner relationships where partners may provide a healthy lifestyle environment for each other, modeling health habits and behavior [9, 33, 59]. A recent review found that married people practice healthier behaviors than single people (with the exception that married men are more likely to be overweight than single men) [50].

The behavior of even more distant relationships in social networks, such as work colleagues and social acquaintances, can also influence dietary and other health practices [8]. It is possible that social networks influence health behavior through their influence of setting social norms for which behaviors are appropriate at particular times of life. Additional research is needed to further explore the pathways of influence of more distant associates [10]. An LCP approach should also include consideration of social norms as setting expectations for appropriate behavior at particular times of life, a view of transitions as processes rather than events, and the interdependence of individual development with characteristics of family of origin, peer networks, and social networks [4, 5, 54].

Nutritional researchers who have applied the life course perspective to understand the development of chronic diseases have focused on deprivation during childhood, which is often viewed as part of the accumulation of health risks over time [3, 37, 39]. Deprivation during childhood, however, can have long-lasting effects on food decision making as well in the context of family life. For example, those who grew up during the Great Depression were told to leave nothing on their plates, and to this day, a clean plate is widely interpreted as a sign of a well-adjusted and healthy child. Economic conditions during childhood and along the course of life contribute to dietary behavior [25].

In families, the relative level of influence into family food choices may vary by family decision hierarchy (parents as compared to children), responsibility for shopping and cooking, and age of the children (toddlers may reject some foods; teens may lobby for new choices). Continuity in family relationships and behavior are important factors in food decision making [28]. Repeated interaction with role partners reinforces a pattern of behavior, as do family rituals and interaction patterns in families [2]. Because of repeated interaction and the emotional meaning of family rituals around food—showing love and caring, engagement in joint enjoyable activities, maintaining cohesion as a family—daily food decisions tend to be stable over time and form a trajectory resistant to change. Relatively little is known about the internal dynamics of family food decision making across the course of childrearing, and this is an area where research is needed [28]

Timing in Lives

Timing in lives is defined as the interaction of age and timing of an event or transition [20]. In health applications of the life course perspective [3, 32, 37, 39] concepts of critical period (when important organ and other regulatory systems develop) and sensitive periods (when organisms are most susceptible to influence) figure prominently as a way to explain the development of differing trajectories of health across lives [30, 31]. Childhood is viewed as the most sensitive period of life for creating the individual differences in health trajectories that emerge prominently in adulthood [29–31, 55] although adulthood exposures to risk are also relevant to the development of chronic disease in those who carry susceptibilities and resource disadvantages from childhood [32, 39].

One of the most well-known health applications of the life course concept of timing in lives is the interaction between exposures to poor nutrition during critical developmental periods of life and chronic health problems in adulthood [11, 30, 31].

Adaptive Strategies

Adaptive strategies are defined as conscious decisions made to improve personal and family well-being in response to societal and economic circumstances [43]. The concept of adaptive strategy is related to the concept of coping [38] which has been widely applied in individual level studies of adaptation to serious health and other events. Given the stability of family relationships and food habits, it would not be surprising if conscious attempts to change what families buy in order to increase the nutritional content of family meals may not lead to a long-lasting change in food provisioning because other meanings of the food and meals may trump the desire to improve diet. However, there is evidence that families can work jointly to change their food choices [28].

A Case Study: Chronic Work–family Stress and Perceived Time Scarcity

In the field of community nutrition, application of the LCP has introduced a focus on chronic stress and perceived time scarcity in young and low-income families as a major barrier to maintaining a healthy diet. This research incorporates and integrates multiple concepts from the LCP—trajectory, transition, culture and contextual influence, and the adaptive strategy—to understand dietary behaviors in low-income families. It also helps with our understanding nutritional disparities.

Major events, such as the birth of a child, or a job change that increases time to make healthier food choices at breakfast or lunch, may be more likely to have an impact on dietary behavior than incremental or more gradual changes in role demands. On the other hand, the extraordinary demands of managing work and family responsibilities among working families with children is likely to reduce time to spend on food decisions and making dietary

changes to a bare minimum [16]. Yet this stage of life is important for setting the stage for future health and preventing the early onset of chronic disease [16].

To explore the relationship between chronic work and family stress and dietary behaviors, Devine and colleagues [18, 35] initiated a series of studies to examine food choices by low-wage employed working families, focusing primarily on social contexts and locations that constrain food choices. Parents employed in low and moderate wage jobs in an urban area in upstate New York were purposively recruited through community agencies, local advertisements, low-wage worksites, and referrals from other interviewees. To qualify for the study, parents needed to work 20 h or more per week and have at least one child aged 16 or younger living at home. Care was taken to recruit a racially and ethnically diverse sample. Two-thirds reported household incomes below the local county median. Forty-nine percent reported full-time employed partners and 58% were employed full time themselves. This initial study, using constructivist research techniques, found that the parents' food choices and dietary intakes were highly variable [18]. Most parents were aware of good food choices, but many did not have the time, income, or access to always eat well themselves or to provide good nutritional choices for their children every day. The patterns of dietary relevant behaviors that emerged from this study have been termed food choice coping strategies [18].

Food choice coping strategies are daily behaviors and other strategies that people use to manage feelings of stress and fatigue, reduce the time and effort required to acquire, cook, and consume food, redefine meaning and expectations for eating, and set priorities for preparing food versus addressing other perceived family needs [18]. Most of the strategies reported by parents were aimed at reducing stress and fatigue after work or at redefining the meaning of foods and eating [18]. The low-wage jobs that the parents held were not amenable to the types of flexible scheduling that higher income parents can use to reduce stress and fatigue [44]. Unfortunately, many of the food choice coping strategies that these parents reported as ways to reduce stress and fatigue, such as skipping meals and relying on take-out and fast food for family meals, are associated with higher fat and calorie intake [18].

These findings have numerous implications. First, they imply that thousands of families with children are at risk of overweight and obesity. Second, objective conditions of work and family for low-wage workers might be particularly disadvantageous to health through stress-reducing strategies that increase the chances of consuming poor food choices. Third, the redefinition of the "meaning" of food and eating—food becomes "fuel" rather than a way to preserve or improve health and promote growth [35]—has implications for everyday decisions that are made in families. Not only adult diets suffer, but also children's diets. Family meals are not home cooked, but comprised of quick foods that have higher calories and fat.

The time-scarce families of this study prized their children, for the most part recognized the need to feed their children well, and made the efforts that they could to provide meals with some balance and variety. However, the events of their daily lives made providing healthy meals for their children very difficult. The time pressures of their jobs led them to reduce as much as possible the time spent acquiring and preparing food at home. Their children acquired a taste for fast food and other calorie dense choices, while healthier choices such as fruits and vegetables were less likely to be served and probably less liked because of lack of time to shop, their cost relative to fast food, and tight food budgets. Healthier preparations of food—for example, home-cooked spaghetti sauce rather the canned variety—take a longer time to prepare and require one to have ingredients on hand. The time spent on cooking and preparation competes with commuting, children's activities, homework, and leisure time

pursuits that parents enjoy with their children. The burdens fall on both mothers and fathers, but perhaps more acutely for mothers who feel that they carry greater responsibility for the well-being of their families [7]. The implications are that on many nights of the week, parents serve take-out pizza, wings, and fast food.

As a follow-up to the qualitative study, a short-term longitudinal three-part pilot telephone survey was conducted. This study was designed to assess the reliability and usefulness of measures of food choice coping strategies for examining the relationships between chronic work and family stress and dietary intake. Employed parents were recruited from low and moderate income zip codes in an upstate New York metropolitan area, using the same inclusion criteria as the previously described study (work 20 h or more per week, have a child 16 years of age or younger living at home, and earn less than the median income in that area). Because it was a targeted sample of small size, diversity was assured by recruiting equal numbers of men and women who self-identified Black, White, and Hispanic. Eligible participants provided verbal consent (approved by the Institutional Review Board). A total of 50 parents agreed to take part in all three of the interviews in the study. The first interview assessed socio-demographic characteristics, household living arrangements and family structure, and work conditions. The second and third interviews included a dietary assessment (the Nutrient Data System for Research) and a short series of questions about daily stressors and characteristics of the family's main meal of the day. The measures of daily stressors were adapted from questions fielded in a national survey of daily hassles ($n=1,031$) [1], and which have demonstrated relationships with daily mood and physical health symptoms [53].

Analyses from this short-term longitudinal survey are still in process, including examining the relationship of work and family conditions to dietary behavior. However, findings on the occurrence of daily stressors and their relationship to mood and fatigue are illuminating. One striking finding is that daily hassles are approximately twice as likely to be reported in this sample as they are in the national sample on which the measures were based [1]. Work hassles are particularly frequent. On 33% of days, parents reported that a daily hassle interfered with the main meal of the day; the majority of these were stressors that occurred at work. Chronic work stressors and work conditions (as reported on the first day of the study) are significantly related to the probability of reporting a subsequent work hassle. Daily hassles are strongly correlated to mood and to reports of fatigue on the day of their occurrence, and mood and fatigue are similarly correlated to poorer mood during the main meal of the day.

Conclusion and Recommendations for Future Research

Recent reviews of the impact of the LCP in health and nutritional research [3, 11, 32, 39] have emphasized the contributions of applying a more biologically based version of the LCP to the development of chronic disease. The emphasis in this review, however, is on the current and potential contributions that the life course perspective has made or will make to research on social and personal factors influencing dietary behavior across the course of life. While the LCP is popular in sociology and demography, its introduction into many health-related fields, such as nutrition, has been slowed by the logistics of conducting studies of dietary behavior that include the factor of life history [3]. One reason for this is that valid and reliable dietary assessment is a highly developed, complicated process. The addition of psychosocial variables measuring social factors and life history increases respondent burden significantly.

Another reason for its limited use is that the LCP was developed to improve basic social scientific research on individual development across life, rather than as a tool to translate

basic science into interventions to improve dietary behavior. Thus the LCP seems relatively distant and less than applicable to the daily work of intervention and practice. In reality incorporation of the life course perspective may strengthen dietary research by limiting recall bias which is a severe hurdle when gathering dietary data [3, 6]. There is considerable evidence that elements of relevant life history, such as severe events, life transitions, and economic conditions experienced in the past, can be recalled when calendar techniques are used to enhance recall for them [6, 54].

Another reason for its limited use may be that the LCP is an approach rather than a theory. More specifically, it is not possible to design a nutritional intervention based solely on concepts from the life course perspective. Interventions require theories of health behavior and change, and these are not part of the LCP. Researchers applying the LCP must partner with those who are experts in theories of health behavioral change.

Finally, the lack of application may be due to the challenges of finding large, longitudinal datasets in which researchers can apply many of the important principles of the LCP, such as dietary trajectory, transitions, and cultural and contextual influences [62]. Nevertheless, it should be noted that the LCP has been fruitfully applied in observational, cross-sectional studies of nutrition and dietary behavior (as summarized above) and that it has yielded unique insights into nutritional disparities between different ethnic and socioeconomic groups [14].

The Office of Behavioral and Social Sciences Research of the National Institutes of Health has encouraged the integration of social and behavioral theory and research into traditional health methods as a way to facilitate the translation of basic research findings into individual and community practice [47]. The LCP approach might be useful in the integration process with a possible benefit of improving the effectiveness of interventions. For example interventions are likely to be more successful in changing behavior if they are targeted at periods of transition in people's lives where observational research has suggested more likelihood or interest in change. The concept of transition also provides important clues on how changes in nutritional and related health habits can come about naturally along the course of family life. Major events that mark the transition into a new social role, such as the birth of a first child, may be more likely to have an impact on family dietary behavior than more incremental or gradual changes in role responsibilities and demands [48]. Thus more systematic research that examines how life transitions of particular types are associated with natural dietary changes in families may prove useful in designing interventions that will be more likely to succeed.

Education and interventions could be timed with transitions that are more likely to have an impact on dietary intake in the long term. Sobal's explication of weight and obesity in relationship to marital status and changes in marital status can help identify targets for intervention across the life course [57, 58]. These represent but a few examples of how to incorporate the life course perspective. Additional research is needed.

Research is needed that focuses on social network and community processes involved in individual food decision making. This paper has emphasized that families are an important context for food decision making. There is accumulating evidence in reviews of intervention research that the involvement of family members and other members of the social network can lead to more effective dietary change [52, 60].

The application of the LCP to dietary behavior is an area ripe for research. The ecological and life contexts in which families make decisions about food need to be objectively measured and factored into intervention designs. Combining basic research on dietary

trajectories with research on chronic work-family stress and perceived time scarcity to choose intervention targets and strategies could potentially break new ground.

Acknowledgments

The development of this paper was supported by grants from the National Institute on Aging (1 P30 AG022845, P.I. Karl Pillemer) and the National Cancer Institute (1 R01 CA 102684, P. I. Carol M. Devine). I would like to thank Ardyth Gillespie, Carol M. Devine, Carole Bisogni, Tracey Farrell, Margaret Jastran, and Sarah M. Hertzog for their many contributions to this work.

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