Published in final edited form as:
Women Health. 2012 ; 52(3): 234–251. doi:10.1080/03630242.2012.658493.

Women's perceptions of the relationship between recent life events, transitions, and diet in midlife: findings from a focus group study

Natasha A. Brown, PhD, MPH,
Center for Health Equity, School of Public Health, University of Maryland

Katherine Clegg Smith, PhD, and
Department of Health, Behavior, and Society, Bloomberg School of Public Health, Johns Hopkins University

Elizabeth Edsall Kromm, PhD, MSc
Department of Health, Behavior, and Society, Bloomberg School of Public Health, Johns Hopkins University

Abstract

Research indicates that history and early life events and trajectories influence women's dietary behaviors. Yet, the social context in which recent life changes occur requires greater understanding, particularly regarding changes that embody the interconnectedness of women and their families, and how those changes affect women's dietary decisions and behaviors. The data presented here were the product of eight focus groups that we conducted in one Maryland county in the fall of 2009. Our participants were 43 women with limited financial resources aged 40–64 years. In this analysis, we focused on women's perceptions of the relation of recent life transitions and events to the dietary decisions they made for themselves and their families. Our findings suggested that transitions and events related to household structure, health status, phases of motherhood, and shifts in financial and employment status all had the potential to have profound and immediate effects on women's dietary decisions and resulting dietary behaviors. We used the focus group data to consider implications for developing intervention strategies designed to improve self-efficacy and negotiation skills around dietary issues as a means of promoting healthy decision-making among women in midlife, particularly in times of familial upheaval and in circumstances where financial resources are limited.

Keywords

dietary decisions; midlife; life events

Introduction

The relationship between diet and chronic disease risk is well documented (Centers for Disease Control and Prevention 2010; Roberts and Barnard 2005; Wiseman 2008), and as a result, shaping dietary behaviors is a central component of many health promotion initiatives. The efficacy of such initiatives depends upon a good understanding of the social contexts in which people make dietary decisions. This insight is particularly important as people age and experience a heightened risk for chronic conditions. In this focus group

Corresponding Author: Natasha A. Brown, PhD, MPH, 3302 SPH Building #255, College Park, MD 20742, (301) 405-7937, nabrown@umd.edu.

study, we set out to explore how middle-aged women conceptualized the factors that shaped their diet. Our aim was to facilitate discussion among individuals who are often the focus of dietary interventions about how and why they eat the way that they do to capture how they interpret their dietary decisions and behaviors.

As we argued in prior work (Authors In Press), women frequently serve as a keystone in the family's diet, such that understanding factors that shape women's dietary behaviors can provide insight into the dietary patterns of the whole family. Women's traditional role as mother and family caretaker includes responsibility for feeding the family, which requires women to engage in meal planning, food shopping and other forms of food acquisition, as well as meal preparation and serving. Previous studies note a "mom effect," in which the influence of a mother's dietary behaviors is perceptible a generation later in her adult daughter's family food choices (Bowen and Devine 2011; Johnson et al. 2010). To date, however, research has not examined the relation of the "mom effect" to the woman's/mom's long-term diet and subsequent health. The caretaker role is one that develops and changes for women over the life course, but is not easily or often shed (Moen, Dempster-McClain, and Williams 1992). While several studies have explored the relationship between maternal resources and capacity and the diet of young children (Gundersen et al. 2008; Moore et al. In Press), greater consideration is needed of how women's role as wife and mother shapes their diet during midlife.

Some literature suggests that dietary behaviors develop through one's life course, and are influenced through multiple life transitions and cultural contexts (Delaney and McCarthy 2009; Devine et al. 1998; Devine and Sandstrom 1996; Kemmer, Anderson, and Marshall 1998). Health promotion to prevent chronic disease would benefit from a concerted effort to consider the impact of transitions and life events on diet, particularly those that happen later in life, or that are unexpected or unplanned (e.g., marital breakdown or adult children re-entering the home). In particular, transitions and events occurring unexpectedly may have a more negative impact on one's health and age-defined roles as compared to transitions and events that are anticipated or occur at a different point along the life course (Pavalko and Willson 2011; Sutin et al. 2010).

In this analysis, we considered how women see their diet as being shaped by the specific conditions and life events during the time period when health effects associated with diet (such as heart disease, diabetes and some cancers) are most likely to start being felt. We were specifically interested to explore how women conceptualized the impact on their diet of their social ties, particularly those associated with marriage and family. While marriage has been found to be protective in relation to mortality, this benefit has been shown to be greater for men than for women (Umberson 1992). It may be that diet plays a role in gender differences in marital advantage. Although marriage provides women with improved financial stability (Lillard and Waite 1995), it may also result in women's perceived or actual lack of control over their dietary decisions due to the demands of their spouses and children (Barker et al. 2008).

Women in midlife often face many challenges related to shifts in family- and work-related roles, economic stability, and health status (Moen, Dempster-McClain, and Williams 1992; Moen 1996; Smith and Moen 1988), which may directly influence on their health decisions and behaviors. For example, Brown and colleagues (2009) found that the effects of recent life events, such as decreased income or the illness of a child or close family member may be different on middle-aged women's physical activity engagement, as compared to the effects that these types of event may have on younger or older women's physical activity engagement. In addition, women may find it necessary to make adjustments to their long-standing dietary attitudes, beliefs, and behaviors due to the development of chronic health

conditions and/or no longer having children in the home, (Edstrom and Devine 2001). Our previous work (Authors In Press) demonstrates that women are well aware of the multiple ways in which their past experiences effected their dietary behaviors. In this paper, we focus on recent life events and transitions during midlife as an important theme that emerged within the context of how they impact the way that women with limited financial resources conceptualize the food choices and dietary behaviors that they make for themselves and their families.

Methods

Participants

We collected data via eight focus group discussions with 43 women. Focus groups took place in one Maryland county during the fall of 2009. We identified potential participants from the county's database of women served by the Centers for Disease Control and Prevention funded Breast and Cervical Cancer Early Detection Program in the previous year (approximately 800 women). This national program offered free screening to uninsured and underinsured women aged 40–64 years with incomes below 250% of the Federal Poverty Level (in 2009, 250% of the poverty level was approximately $36,000 for a two-person household) (DeNavas-Walt, Proctor, and Smith 2010). Based on the premise that health and family might differ substantially based on age, we stratified recruitment so as to create four focus groups with women aged 40 to 50 years and four focus groups with women aged 51 to 64 years.

Procedures and Data Collection

We sent women in the county's cancer screening database a recruitment letter with a brief overview of the study and available focus group times. We sent out two waves of recruitment letters with separate times and locations for focus groups for each age group, first to women aged 40–50 years followed by women aged 51–64 years. The recruitment letter asked women who were interested to contact Author B at which point Author B signed them up for a group. In total, we sent out 300 invitation letters, with a goal of recruiting between 40–50 women for eight focus groups. Our recruitment yielded 43 participants (approximately 14% of those invited). The goal was to construct each focus group with between five to seven participants; actual group size ranged from three to eight. We held the group discussions in the meeting room in one of two county libraries, and Author B moderated all of the groups, with at least one additional note-taker at each session (Author A was the note-taker at 5 sessions and Author C was the note-taker at 3 sessions). We audio-recorded and fully transcribed all discussions. We designed the focus group discussion guide to elicit concepts of diet and health and influences on dietary behaviors, and did not explicitly intend to prompt discussion of the influences of life events or transitions on diet.

We gave each woman a disclosure statement to review before the beginning of the focus group sessions. Women subsequently provided oral consent to participate such that that the researchers did not maintain any record of the participants' names or contact details. The disclosure form contained the same information that would typically be provided in a consent form, including the contact details of the investigator and the Institutional Review Board. We provided a copy of this form for participants to take home with them. We provided participants $40 compensation for their time. After the first focus group, researchers identified available low-cost or free county health services and provided contact information for these services to participants based upon issues raised during the group discussions. The State of Maryland and University [name withheld for blinded review] Institutional Review Boards approved this research.

Analysis

We initiated an iterative and inductive coding process after we transcribed the first few focus groups. The coding process began with open coding by Author B (Study Principal Investigator). Author B then consolidated emergent topics into major themes to develop an initial coding framework. This process allowed for a transition from broad to more specific themes as the data analysis continued. In this way, we expanded some codes while collapsing or eliminating others, thereby leading to the identification of central themes within the data (Lofland et al. 2006). In conjunction with a review of all transcripts, Author A (Student Research Assistant) reviewed and revised the resulting coding framework. Author A then coded all transcripts with the use of ATLAS.ti qualitative data analysis software (www.atlasti.com). We used a constant comparison method to identify and refine emergent themes (Corbin and Strauss 2008). Author B reviewed the coding and analysis in conjunction with the existing literature and responded to coding queries at various stages of this analytic process. Author C (County Health Department Partner) provided feedback throughout the data collection and analytic phases. Involving the research team throughout the data collection and analysis process served to enhance the dependability (i.e., reliability) of the study (Miles and Huberman 1999), largely through the process of confirmation of analytic approach (Graneheim and Lundman 2004). The analysis was based upon data initially coded for the thematic category of “life course changes”. This was not an *a priori* thematic category, nor was it a primary focus for the overall study. Rather, we were interested in how issues of recent changes to family structure and household composition emerged as important factors in how women understood their diet during the data coding and analytic process.

Results

Study Population

We exceeded our recruitment target of eight focus groups with 40 participants, recruiting a total of 43 women (22 who were under age 50 years and 21 who were 50 years or older). Beyond using the respondent’s age to create the stratified focus groups, we did not request additional demographic information, nor did we abstract demographic information from the Screening Program database. This strategy reduced the intrusiveness of the research activity within the setting of a public health department and preventive health care relationship. Although we did not record each participant’s self-identified race, all groups were diverse in terms of race/ethnicity and culture of origin.

Emerging Themes

During the group discussions, the women frequently introduced life transitions and events as being relevant to shaping their day-to-day food choices or to their overall diet quality. Although individual circumstances varied, the women primarily described transitions and events in relation to shifts in household structure, health status, finances and employment, and responsibilities associated with motherhood. These themes were consistent across both age groups, and the discussions indicated interconnectedness between transitions and life events, with actual or potential influences on multiple areas of women’s lives.

Household Composition and Family-Related Roles—The discussions frequently included accounts of recent changes in women’s physical residence or household composition, with women describing the influence of such changes on their food-related decisions and dietary routines. Women frequently presented ways in which their diet and ways of eating had been altered by children leaving home, children returning to live at home again, often with significant others or grandchildren, and changes in marital or relational status for the women themselves. Although many of the women discussed these types of

household changes as being somewhat disruptive, some women spoke of positive outcomes of the changes. One woman described how recently becoming an 'empty-nester' prompted her to begin cooking more, an act she perceived to be better than her previous dietary routines:

> *I started cooking a little bit more right after they left because I knew it would get me into a bit of a funk with them both gone. So I started cooking a little bit more… because it was better. When they were younger, and I was off for a day, I could go ahead and survive on...popcorn one night or peanut butter sandwich…So I decided to start getting into cooking more…And I enjoy it.* (M, FG6, 51–64) [1]

Women who were no longer living as part of a family unit, as well as those who had recently experienced a 'new' person in or departure of someone from the household, raised the issue of the relationship between changes in family structure and the nature of one's diet. In particular, women who were now living alone described challenges in relation to having to cook meals for one person. Strategies employed to counter such difficulties included eating more fast food and cooking food for multiple meals.

> *When I lived with my sister we shared the cooking. And I mentioned that because I was living with her [and my two nephews] for four years, so that's been like the past four years of my life until the past month. But we shared the cooking and we sort of split it. Sundays she would cook for a couple of days and during the week I'd cook one or two days during the week. So I ate whatever she cooked, and she ate whatever I cooked. Now, I try to cook enough to last a couple of days so I don't have to cook every day. And weekends, if I have something cooked, I eat it, or I just find whatever's available, whatever I have that's quick.* (N, FG1, 40–50)

Although many of the women described preparing fewer meals when their households decreased in size, one woman outlined an inability to make the adjustment in the amount of food she prepared, even though several a specific had passed since she experienced a major change in her household structure:

> *It's me and my soon-to-be eighteen-year-old daughter, and I have two sons. I've been living in Maryland for about little over nine years. And before I moved down here, I had my two sons and my husband. And that's, I'm not used to cooking for just two people. So everything I cook always has, seems to have leftovers.* (S, FG6, 51–64)

One might assume that increased control and satisfaction with what is prepared would accompany a reduction in a woman's food preparation 'burden.' The previous quote demonstrated, however, that for some women, a smaller household was understood as contributing to overconsumption and lower overall satisfaction, due to a lack of skill or experience in cooking for fewer people.

In describing a transition or major life event, some women did allude to the discovery of a sense of freedom in the ability to prepare food according to their own food preferences rather than those of previous household members (particularly that of a spouse). For others, however, changes in household structure signaled a perceived loss of control that they previously held regarding food-based decisions. Not all households of middle-aged women were shrinking, however, and the perceived loss of control often involved submitting to the food preferences of a spouse, particularly one who is relatively new. As one woman explained, her relatively recent marriage affected her ability to make healthful food choices:

[1]The term "N, FG1, 40–50" indicates that speaker N, who participated in Focus Group 1, which included women 40–50 years of age, provided this data excerpt.

> *It affects what we eat, because he first and foremost is going to have what he wants. Because he's the man, he makes the money, and I'm a stay-at-home, home-schooling mom… I was a single mom with my son for 15 years. So we ate good. I shopped. I did everything then too, but I was used to eating a certain way. Making decisions. So it's hard for me coming from a background of eating better and walking everywhere and stuff like this to be in the position now.* (C, FG3, 40–50)

This statement illustrated how changes in household structure, particularly changes related to relationship status, contributed to fluctuations in the women's perceived control over dietary decisions.

For participants who were mothers, life events and transitions related to household structure often intertwined with those associated with responsibilities of motherhood, particularly the movement of adult children back into the home. In many instances, women presented these shifts in household composition as disrupting what they perceived to be healthful dietary behaviors. One woman described how the moving of her adult son and his fiancée into her home disrupted her sense of control over her dietary decisions and contributed to changes to healthier dietary habits that she had developed while living alone for several years:

> *My diet is… I stay relatively healthy. I normally shop at Mom's Organic Market or Whole Foods or Trader Joe's. My diet tends more towards vegetables and fish… Since [my son and his fiancée] have moved in with me, they're 27 and 23, and they eat lots of junk food. They eat very late and they bring, you know, lots of stuff into the house so I have the temptation there. And so it's a balance between demonstrating for them healthier eating habits and getting sucked into what they're eating. So we're kind of dancing with that right now.* (CM, FG 7, 51–64)

This quote depicted the contribution of adult children to changes in the women's perception of control in the dietary routines of their households. The interconnection between children's diets and that of their mother was a prominent theme in the focus groups. Regardless of children's age, many mothers described their obligations to their children or their children's food preferences as the drivers of the mothers' food-related decisions. Often, these decisions resulted in behaviors that were contrary to the mother's preferences or what she understood to be healthful:

> *So, I only have a 14-year-old, and I make sure we have something to eat, but I don't like cooking every day. So I make some Hamburger Helper, whether I'm hungry or not, it's there as something to eat, and that'll last a couple of days. But after that, for the sake of my son, regardless of me, I'll make something else, or maybe McDonald's.* (K, FG8, 51–64)

These excerpts illustrated that life changes related to household structure and roles associated with motherhood influenced the dietary decisions the women made for themselves and their families. In addition to these changes and roles, the women also discussed changes in health status and how they adjusted their roles related to dietary decision-making to accommodate changes in the health status of household members.

Health Status—During several group discussions, women described the changes in their health status or in that of a household member that led to changes in food choices and dietary routines. Often these were not isolated incidents, but rather occurred as part of a series of negative events from which the women struggled to recover. The participants discussed concerns and changes related to chronic health conditions, such as hypertension and diabetes, as well as acute conditions, such as injuries. The consumption of comfort foods as a coping mechanism often accompanied health-related events, causing the women

to experience unwanted weight gain. One participant talked about the impact of recently breaking her leg and experiencing limited mobility due to being in a cast for several months:

> *You know, waves of depression because, you know, I can't do this, I'm limited, I'm walking around with a boot for four months. You know, so I start going down that path where I started eating things that were, I clearly knew I shouldn't, but you know, it was comfort food for me to get through, through my highs and lows of that time.* (MB, FG5, 51–64)

In addition to sudden changes in health status, many of the women also discussed their efforts to make changes in their diets to combat "natural" changes in their weight status believed to be occurring because of a decline in their metabolism. In some cases, women expressed frustration and confusion about what they should eat to stall or reverse weight gain. In other cases, women described making behavioral modifications based on their perceptions of what qualified as healthier habits. For example, one woman attributed her reduction in sugar consumption to her awareness of its contribution to her weight gain:

> *I cut down sugar four years ago. Even though I knew I didn't have no diabetics [sic], but I was gaining a lot of weight, and just cut down. I don't eat other sweets, except fruits, but when I drink tea in the morning, I used to take a lot of sugar, but four years ago I decided to take out the sugar, start Equal.* (E, FG1, 40–50)

The two previous excerpts illustrated the women's perceptions of the influence of sudden and gradual changes in their own health status on their dietary decisions and behaviors. In addition to these health-related changes, some women saw life events related to others' health as having caused changes in how they made food-related decisions for their households. One woman described, in detail, how her husband's illness affected her food-related responsibilities, how she prepared meals, and how she understood the subsequent effect on her own eating habits and weight:

> *My husband's been really sick recently… Cooking's been really difficult for me because I used to make a lot of things, and he would just get really sick. So I almost stopped cooking anything, sauces, gravies. I've had to be super careful with my diet. So I find myself eating everything, and he's eating nothing. So, I'm putting on the weight, and he's losing weight, because I had to eliminate a lot of stuff. But sometimes, I want to cook something and he can't eat it all, so I wind up eating all the leftovers… he used to be a good cook, and he used to cook everything. So he kind of spoiled me that way. But then, he started getting really sick, and he lost his appetite, so he's burdened that responsibility with me, the cooking, the cleaning… It's been a little difficult, but I keep working around his health issues. It's been hard.* (E, FG2, 40–50)

In many instances, women's responsibility to continue to meet their family members' preference for foods traditional to their cultural backgrounds created a challenge for the types of dietary changes seen as being necessary. Many of the women discussed how they modified certain foods as a result of their awareness of the need for healthier dietary habits within their homes:

> *But I am from Pakistan. In our country, the people use too much oil, and I know we're using too much oil too. But when I came here, and my husband got stroke and he got high cholesterol… But I use a little bit of oil, but I steam everything. I make pajani, I make every dish from my country, but I'm using just a little bit of oil and then I use the yogurt. My kids like our country food, and I cook curry, I cook [our traditional dishes] but I use just yogurt.* (E, FG1, 40–50)

These data provide examples of how health-related changed affected the women's dietary decisions and behaviors. In addition to these types of changes, the women also discussed

how changes in their employment status and/or financial resources influenced their dietary decisions and routines.

Employment and Financial Resources—The group discussions elicited many instances in which women described how shifts in finances and employment further complicated changes in household structure and health status, which in turn affected diet. Looking back several years, one woman noted how motherhood changed her financial and employment status, and, subsequently, how she made decisions about what they would eat from day to day:

> *Well I was, you know, I didn't have any worries before plus I worked all the time, made all this money. I would go out to dinner all the time and, you know, had money to blow on stuff like that. I don't have money to go to restaurants now, so, and having kids totally changes the way you think about everything.* (J, FG4, 40–50)

Several women discussed frustration related to making food-related decisions on a strict household budget, particularly when finances were limited for an extended time. These frustrations were sometimes due to challenges related to the recession, as the food-purchasing budget remained constant while the cost of foods and other necessities increased. In some cases, the women discussed long-term financial limitations; one manifestation of limited financial resources for an extended time was the expression of boredom over the dishes they knew how to create within their budget:

> *But no, I have my own routine, but it really has been going on too long. But it all revolved around budget, because at 19, I was married at the age of 19. So I learned how to shop at that age, but everything went according to the budget. So I still had that same habit in reference to the budget, but it's still eating the same stuff. So now I'm tired of eating that same stuff, you know, it works financially to stretch the food, but it has to do something different with this ground beef.* (K, FG8, 51–64)

Some women described the impact of financial or employment-related life events on diet as relatively within their control, and as things with which they were able to cope adequately. Thus, although reductions in household resources were seen as restricting food choices, many women talked about options for maintaining a sensible diet, and being able to continue to acquire their preferred foods. Other women, however, described the impact of unemployment and financial difficulty on their dietary routines and food-related decisions as being quite profound, including limiting the numbers of meals eaten each day, and saving precious 'healthy' foods for their children:

> *Um, but I've been tending lately, um to kind of have one meal a day. I don't really get hungry. I'm much better off as far as not stopping if I don't start. Um, and I'm currently unemployed, so I don't want to spend a lot on groceries. So this minimizes it.* (H, FG6, 51–64)

Another woman attributed her low intake of fresh fruits and vegetables to her inability to purchase enough fresh foods for her entire family and her perceived need to address the dietary needs of her children first:

> *I tend to give them whatever fresh food I buy. I make them eat it, and I'll tend to not eat it. Yeah, because I figured, you know, they're kids. They should eat more healthy, and I'm, it's a shame that I can't buy more that we all can eat it. Whatever I do buy I tend to just give it to them, and make them eat at least one fruit and vegetable a day. Whereas I may go a day or two without any fruit or vegetable just because I push it on them.* (J, FG4, 40–50)

Several women described the financial difficulties that they experienced as being part of a series of events that influenced their dietary behaviors. Often, their stories illustrated the complexity and interconnectedness of multiple factors influencing these behaviors:

> *Yeah I, myself, I like a variety of food. … I lost about seventy pounds or more, but when my finances, they started changing, I wasn't able to go back to the gym. And I began to, I guess come into a state of like depression, and then began to eat, and basically when I do come here to eat and then fall off to sleep. And I realized that's where my weight began to gain back. Also, I busted a knee and I wasn't able to get back, but I am, I'm going back, and I'm going to lose this. And start back eating, you know, healthy. And I feel better then… I don't eat out that much. Can't really afford it now, but getting back in there, exercises, have some vitamins. Plus as I got older my metabolism slowed down, and I've been trying to find something to build that bad boy back up.* (P, FG5, 51–64)

This excerpt provided an example of women's perceptions of the connection between their financial and health statuses. Several of the women discussed finances and health together, and in some instances, women presented life events characterized by hardships in health status or financial stability as a prompt in the development of a retrospective realization of the importance of healthy eating and the potential or actual consequences of unhealthful behavior:

> *But the flipside to that is, that preventive, if I had done preventive when I was younger, that probably wouldn't have some of the issues that I have now. And also we lost, in the middle of all that, we, my husband, they downsized his company and he lost his job of twenty years. So we lost our health insurance with that. So we're talking now going on, probably, twelve years I've been without health insurance. So the preventive side, I mean you just never know what could happen down the road, so prevention is going to be the best, would be the best choice.* (D, FG4, 40–50)

The women in these focus groups regularly made connections between financial changes and constraints and the nature of their diet and that of their family. It was not always easy to determine whether these events and changes occurred recently. However, the changes were such that their impact was still being felt, and all referred to a time when circumstances were not as they were currently, such that the change was relevant to how women understood their own dietary options and behaviors.

Discussion

In this analysis, we explored ways in which women conceptualized recent life transitions and events as influencing the dietary decisions that they make for themselves and their families. The women in this discussion group sample presented transitions and events occurring in midlife as influential on diet and as interconnected, often occurring in tandem with and influencing one another. In talking about their diets, women described interdependent connections that were formed, retained and broken with the people in their lives, and the ways that these people, especially those with whom they live, contributed to the surrounding lifestyle environment and exerted influences on behavior (Wethington 2005). Together, these transitions, events, and connections created a complex set of factors that shaped the women's dietary decisions and behaviors. These influences have implications for addressing decisions and behaviors that may have a negative effect on women's health in midlife. The data presented here represent a single point in the lives of our participants, calling upon women's recollections and assessments of the effects of life circumstances, events and transitions in shaping their diets in the recent past.

Despite an increased involvement in the labor force, in most households, women maintain their traditional role of being the individual who is primarily responsible for household food acquisition and preparation, which often intertwines with their roles and responsibilities associated with motherhood (Harnack et al. 1998; Maher, Fraser, and Wright 2010; Roberts and Wortzel 1979). As noted by Lawrence and Barker (2009) a certain level of skill, as well as self-efficacy concerning those skills, is required to perform the duties associated with acquiring and preparing food for a household.

Furthermore, when multiple food preferences exist in a household, as they typically do, negotiation skills may be at a premium, particularly when a limited budget restricts choices, and when the preferences of some household members may not result in healthful dietary behaviors (Gillespie and Johnson-Askew 2009; Lawrence and Barker 2009). This analysis highlighted the concept of linked lives influencing the women's dietary decisions and behaviors. Although more positive health behaviors tend to be associated with being married (Wethington 2005; Blake et al. 2011), our discussions did not necessarily support such an idea, at least not in relation to women who presented spousal influence on their diet. Rather, several women reported losing control of the household's food decision-making process when a husband or significant other was providing the funds necessary to purchase food or a partner had a new dietary restriction due to a health event. This, in turn, often led to women conceding to other household members' less healthy dietary behaviors and preferences. In several instances, the presence of adult children in the home created an environment with unhealthy food choices and/or caused the women to perceive a need fill their roles as mothers and oblige their children's dietary preferences. This, in turn, prompted the women's concession of control.

It is also important to note the timing of this study relative to the economic recession taking place during the late-2000s. As noted by Wiig Dammann and Smith (2009), women who live in poverty often have multiple roles within the household and experience stress related to their general household duties, as well as their roles and responsibilities related to providing food for their families. Low-income women are often faced with the need to focus on quantity, rather than quality, of their food purchases, and although they are often aware of the foods that should be included in a healthful diet, purchasing and consuming these foods on a regular basis may be impossible due to financial constraints (Wiig Dammann and Smith 2009). Furthermore, because parents who head low-income families are more likely to report missing meals (Blake et al. 2011), and because financial stress may lead to poor health outcomes, particularly among women, (Ahnquist, Fredlund, and Wamala 2007), the temporary or transitional nature of limited household incomes may be of special consideration during times of economic hardship. .

Strengths and Limitations

This small and exploratory focus group study was clearly not without limitations. Our participant sampling frame was a breast and cervical cancer screening database, and it is possible that our participants were intrinsically more motivated to be aware of and actively address issues related to their health and related behaviors. In addition, because of the select nature of the sampling frame, the low participation rate and because we did not collect demographic data, beyond age group, from our participants, we cannot generalize the findings of this study to women of any particular demographic group. However, the purpose of our study was to delve into women's presentations of factors influencing dietary decisions and behaviors, rather than to make broad generalizations about the decisions and behaviors or related influences. The use of focus groups as the data collection method for this study was appropriate because we sought to investigate a complex set of thought processes, knowledge, motivations, and previous experiences that inform behaviors (Kitzinger 1995). While we recognize that the group setting may also have introduced some social desirability

bias in the participants' responses and interactions with one another, we note that women were willing to talk about emotionally sensitive and stigmatizing issues (such as marital difficulties and restricting food intake due to a lack of money), suggesting that social desirability may not have been an overwhelming factor in the nature of these discussions.

The primary purpose of the study was to examine women's thinking about diet and health and the sources of information about diet. The focus group prompts did not specifically address the influences of life course events or transitions on diet. However, because the "life course changes" theme and the subthemes we presented here emerged through an iterative and inductive coding process and were not a priori themes, they represented concepts that were genuinely salient to the participants' lives and that played a central role in their dietary decisions.

Implications

Among the women who participated in this study, we saw that challenges and accommodations in one area of their lives often accompanied challenges in other areas . This was particularly evident when examining economic, employment, and health trajectories, with challenges in economic and employment trajectories producing negative direct and indirect effects in the women's physical, and sometimes mental, health status. The interconnectedness of multiple areas of the women's lives underscores the importance of the adoption of a holistic approach when seeking to encourage positive dietary decisions and behaviors.

Women's ability to engage in discussions or joint decision-making with other household members regarding food preferences may improve dietary outcomes for women and their family members (Schafer et al. 1999). Our findings suggested that middle-aged women, particularly those who were not the primary breadwinners or who had adult children re-entering the home, may benefit from intervention strategies designed to increase negotiation skills regarding healthy food acquisition and preparation for their families and their self-efficacy for enforcing healthier dietary behaviors within their homes. Such skill building is often pertinent to young adults, as they become independent and set up their own home. However, our data suggest that this remains relevant into midlife and beyond, specifically building capacity in relation to negotiations with both spouses and adult children about food choices. These skills may be of increased importance during times of financial hardship when women must also balance these factors with the basic need of keeping their family fed. This may be of particular value for women, such as many in this study, who have not always experienced limited financial resources and are less accustomed to balancing basic food provision with food preferences and healthy food acquisition and preparation.

Although this analysis focused on life transitions and events that women experienced during midlife, implications were evident for potential intervention strategies implemented in adolescence and young womanhood. The women in this study indicated that had they been more aware of the consequences, they might have engaged in healthier behaviors prior to this point in their life course. While longitudinal studies are important to understand dietary and other health behaviors from the life course perspective (Devine 2005), as this analysis demonstrated, short-term research is also needed to provide contextual insight to the immediate and intermediate effects of life transitions and events on women's dietary decisions and behaviors.

Acknowledgments

This work was supported by the Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion (5K01DP001129-03, K.C. Smith, PI). At the time this research was conducted,

E.E. Kromm was the Senior Advisor to the Health Officer with the Howard County Health Department, and N.A. Brown was a doctoral student in the Department of Health, Behavior, and Society at the Johns Hopkins Bloomberg School of Public Health. Dr. Brown is currently supported by the Research Center of Excellence in Minority Health and Health Disparities, funded by the National Institutes of Health (NIH), National Institute on Minority Health and Health Disparities (PG60MD000207, S.B. Thomas, PI). We would like to thank Michelle Oswald, former manager of cancer and tobacco control programs with the Howard County Health Department for her assistance in the recruitment of participants and set up of the focus groups. In addition, we would like to thank Dr. Peter Beilenson, Howard County Health Officer, for his support of this research project.

References

Ahnquist, Johanna; Fredlund, Peeter; Wamala, Sarah P. Is cumulative exposure to economic hardships more hazardous to women's health than men's? A 16-year follow-up study of the Swedish Survey of Living Conditions. Journal of Epidemiology and Community Health. 2007; 61:331–336. [PubMed: 17372294]

Authors. “I come from a black-eyed pea background”: The incoroporation of history into women's discussion of diet and health. Journal title held for blind review. In Press.

Barker M, Lawrence WT, Skinner TC, Haslam CO, Robinson SM, Inskip HM, Margetts BM, Jackson AA, Barker DJP, Cooper C. University of Southhampton Food Choice Group. Constraints on food choice of women in the UK with lower educational attainment. Public Health Nutrition. 2008; 11 (12):1229–1237. [PubMed: 18298884]

Blake, Christine E.; Wethington, Elaine; Farrell, Tracy J.; Bisogni, Carole A.; Devine, Carol M. Behavioral contexts, food-choice coping strategies, and dietary quality of a multiethnic sample of employed parents. Journal of the American Dietetic Association. 2011; 111 (3):401–407. [PubMed: 21338739]

Bowen, Ronni Lee; Devine, Carol M. “Watching a person who knows how to cook, you’ll learn a lot”. Linked lives, cultural transmission, and the food choices of Puerto Rican girls. Appetite. 2011; 56 (2):290–298. [PubMed: 21172395]

Brown, Wendy J.; Heesch, Kristiann C.; Miller, Yvette D. Life events and changing physical activity patterns in women at different life stages. Annals of Behavioral Medicine. 2009; 37:294–305. [PubMed: 19506989]

Centers for Disease Control and Prevention. Vital signs: State-specific obesity prevalence among adults -- United States, 2009. Morbidity and Mortality Weekly Report. 2010 Aug 3.59:1–5. [PubMed: 20075837]

Corbin, JM.; Strauss, AL. Basics of Qualitative Reserach: Techniques and Procedures for Developing Grounded Theory. 3. Thousand Oaks, CA: Sage Publications, Inc; 2008.

Delaney, Mary; McCarthy, Mary. Food choice and health across the life course: A qualitative study examining food choice in older Irish adults. 113th EAAE Seminar: “A resilient European food industry and food chain in a challenging world”; Chania, Crete, Greece. 2009.

DeNavas-Walt, C.; Proctor, BD.; Smith, JC. U. S. C. Bureau. Income, Poverty, and Health Insurance Coverage in the United States: 2009. Washington, DC: U.S. Government Printing Office; 2010.

Devine, Carol M. A life course perspective: Understanding food choices in time, social location, and history. Journal of Nutrition Education and Behavior. 2005; 37:121–128. [PubMed: 15904575]

Devine, Carol M.; Connors, Margaret; Bisogni, Carole A.; Sobal, Jeffery. Life-course influences on fruit and vegetable trajectories: Qualitative analysis of food choices. Journal of Nutrition Education. 1998; 30:361–370.

Devine, Carol M.; Sandstrom, Brittmarie. Relationship of social roles and nutrition beliefs to fat avoidance practices: Investigation of a US model among Danish women. Journal of the American Dietetic Association. 1996; 96:580–584. [PubMed: 8655905]

Edstrom, Katarina M.; Devine, Carol M. Consistency in Women's Orientations to Food and Nutrition in Midlife and Older Age: A 10-Year Qualitative Follow-Up. Journal of Nutrition Education. 2001; 33 (4):215–223. [PubMed: 11953243]

Gillespie, Ardyth MH.; Johnson-Askew, Wendy L. Changing family food and eating practices: The family food decision-making system. Annals of Behavioral Medicine. 2009; 38(Suppl 1):S31–S36. [PubMed: 19885714]

Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Education Today. 2004; 24 (2):105–112. [PubMed: 14769454]

Gundersen, Craig; Lohman, Brenda J.; Garasky, Steven; Stewart, Susan; Eisenmann, Joey. Food Security, Maternal Stressors, and Overweight Among Low-Income US Children: Results From the National Health and Nutrition Examination Survey (1999–2002). Pediatrics. 2008; 122(3):e529–e540. [PubMed: 18762488]

Harnack, Lisa; Story, Mary; Martinson, Brian; Neumark-Sztainer, Dianne; Stang, Jamie. Guess Who's Cooking? The Role of Men in Meal Planning, Shopping, and Preparation in US Families. Journal of the American Dietetic Association. 1998; 98 (9):995–1000. [PubMed: 9739799]

Johnson, Cassandra; Sharkey, Joseph; McIntosh, Alex; Dean, Wesley. “I'm the Momma”: Using photo-elicitation to understand matrilineal influence on family food choice. BMC Women's Health. 2010; 10(1):21. [PubMed: 20565771]

Kemmer, Debbi; Anderson, AS.; Marshall, DW. Living together and eating together: Changes in food choice and eating habits during the transition from single to married/cohabiting. The Sociological Review. 1998; 46 (1):48–72.

Kitzinger J. Qualitative resesarch: Introducing focus groups. BMJ. 1995; 311 (7000):299–302. [PubMed: 7633241]

Lawrence W, Barker M. Workshop on 'Changing nutrition behaviour to improve maternal and fetal health': A review of factors affecting the food choices of disadvantaged women. Proceedings of the Nutrition Society. 2009; 68:189–194. [PubMed: 19208268]

Lillard, Lee A.; Waite, Linda J. 'Til death do us part: Marital disruption and mortality. American Journal of Sociology. 1995; 100 (3):1131–1156.

Lofland, J.; Snow, D.; Anderson, L.; Lofland, LH. Analyzing social settings: a guide to qualitative observation and analysis. Florence, KY: Wadsworth Publishing; 2006.

Maher, JaneMaree; Fraser, Suzanne; Wright, Jan. Framing the mother: childhood obesity, maternal responsibility and care. Journal of Gender Studies. 2010; 19 (3):233–247.

Miles, Matthew B.; Huberman, AM. Qualitative data analysis. 2. Miles, MB.; Huberman, AM., editors. Thousand Oaks, CA: SAGE Publications, Inc; 1999.

Moen P. A Life Course Perspective on Retirement, Gender, and Well-Being. Journal of Occupational Health Psychology. 1996; 1 (2):131–144. [PubMed: 9547042]

Moen P, Dempster-McClain D, Williams RM Jr. Successful Aging: A Life-Course Perspective on Women's Multiple Roles and Health. American Journal of Sociology. 1992; 97 (6):1612–1638.

Moore, Jean Burley; Gaffney, Kathleen F.; Pawloski, Lisa R.; Jaimovich, Sonia P.; Campos, Maria C. Maternal Child Nutrition Practices and Pediatric Overweight/Obesity in the United States and Chile: A Comparative Study. Journal of Pediatric Nursing. In Press.

Pavalko, Eliza K.; Willson, Andrea E. Life Course Approaches to Health, Illness and Healing. In: Pesconsolido, BA.; Martin, JK.; McLeod, JD.; Rogers, A., editors. Handbook of the Sociology of Health, Illness, and Healing. New York, NY: Springer Publications, Inc; 2011.

Roberts, Christian K.; James Barnard, R. Effects of exercise and diet on chronic disease. Journal of Applied Physiology. 2005; 98 (1):3–30. [PubMed: 15591300]

Roberts, Mary Lou; Wortzel, Lawrence H. New Life-Style Determinants of Women's Food Shopping Behavior. The Journal of Marketing. 1979; 43 (3):28–39.

Schafer, Robert B.; Schafer, Elisabeth; Dunbar, Martin; Keith, Patricia M. Marital food interaction and dietary behavior. Social Science & Medicine. 1999; 48 (6):787–796. [PubMed: 10190641]

Smith, Ken R.; Moen, P. Passage through Midlife: Women's Changing Family Roles and Economic Well-Being. The Sociological Quarterly. 1988; 29 (4):503–524.

Sutin AR, Costa PT Jr, Wethington E, Eaton W. Perceptions of Stressful Life Events as Turning Points are Associated with Self-Rated Health and Psychological Distress. Anxiety, Stress & Coping. 2010; 23 (5):479–492.

Umberson, Debra. Gender, marital status and the social control of health behavior. Social Science & Medicine. 1992; 34 (8):907–917. [PubMed: 1604380]

Wethington, Elaine. An overview of the life course perspective: Implications for health and nutrition. Journal of Nutrition Education and Behavior. 2005; 37 (3):115–120. [PubMed: 15904574]

Wiig Dammann, Kristen; Smith, Chery. Factors Affecting Low-income Women's Food Choices and the Perceived Impact of Dietary Intake and Socioeconomic Status on Their Health and Weight. Journal of Nutrition Education and Behavior. 2009; 41 (4):242–253. [PubMed: 19508929]

Wiseman, Martin. The Second World Cancer Research Fund/American Institute for Cancer Research Expert Report. Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective. Proceedings of the Nutrition Society. 2008; 67(03):253–256. [PubMed: 18452640]