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A Qualitative Study of Food Purchasing Behaviors among Older Adults

Jaeha Lee¹ & Alexa L. Evenson²

Abstract

The purpose of the study was to gain insight into older adults' food purchasing behaviors. A qualitative study of 26 in-depth interviews was conducted. Participants were aged 65 or older, purchased their own food, and prepared their own meals. Grounded theory method was used to develop an explanation of older adults' food purchasing behaviors that was grounded in data. Coding of the qualitative data were performed to identify significant categories. Four categories emerged from the data which included 1) Routine shopper; 2) Purchasing staples; 3) Lack of interest in learning new purchasing behaviors; and 4) Price and convenience over nutrition. Older adults employed routine behaviors when shopping and purchased items they were familiar with. Price and convenience appeared to influence purchasing behavior more than nutrition. Older adults lacked diversity in their food purchasing and utilized little nutrition information in their food choices. Participants were resistant to change in regard to shopping location, in-store routine, foods purchased, sources of information used in planning food purchases, and use of nutrition information. Health educators could design easily-accessible in-store nutrition education opportunities for older adults in order to learn new food purchase options independently and increase nutrition knowledge to improve variety in food purchases.

Keywords: older adults, nutrition information, food purchasing behavior, nutrition education

1.0 Introduction

The older adult population in the United States is growing rapidly. More than 20 percent of U.S. residents are projected to be aged 65 and older by 2030 (Ortman, Velkoff, & Hogan, 2014). As we prepare for this new demographic era, fostering better health and wellbeing of older adults is in our best interest. Older adults are often concerned with maintaining physical health as they age (The United States of Aging Survey, 2015). Eating a well-planned, balanced, variety of foods is crucial in supporting older adults' health as this may reduce the risk of developing chronic disease (Burnstein & Munoz, 2012). In addition, purchasing food is an important part of older adults' everyday life as this constitutes one of the largest expenditures, along with healthcare, housing, and transportation (Burham, 2007). Older adults are twice as likely to consider nutrition as very important, compared to younger adults (Bowman, 2005). Moreover, older adults think that nutrition is more important for food choice compared to cost or convenience (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998). While older adults recognize the importance of nutrition in their food choices, they have been identified as a group with nutritionally inadequate diets (Burnstein & Munoz, 2012). In addition, older adults that have more variety in their diet have been found to have better health outcomes as they age and also increase their caloric intake (Hollis & Henry, 2007).

Food shopping environments are identified as one of the factors influencing the health of older adults (Moore & Diez Roux, 2006). Challenges with food shopping for older adults have been addressed in previous studies. Difficulty in seeing labels, large package sizes, low temperatures in stores, difficulty in using carts, public transportation and reaching shelves have all been reported as impediments (Wallis, 1994; Leighton, Seaman, & McGlade, 1996; Leighton & Seaman, 1997; Hare, 2003; Bernstein & Munoz, 2012).

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Moreover, poor-quality shopping environments, including excessive noise, poor lighting, heavy traffic, and poor access to public transportation, are associated with the health of older adults (Bartali et al., 2003). The majority of previous studies have focused only on environmental factors, ignoring the influences of older adults' behavioral factors, such as shopping habits on their health. In spite of the significant number of older adults in the marketplace, little has been known about their food shopping behavior (Mason & Smith, 2005). Given that the older adult population is significantly growing and food shopping is a major influence on their health, it is important to gain insights into older adults' food shopping behaviors. The goal of this current study was to develop a theory of older adults' food purchasing behaviors that are grounded in data.

This qualitative approach was selected because it can produce a data set rich enough to explain how older adults shop for food, what factors influence older adults shopping behaviors, and what aspects of food shopping behavior could be changed. When grounded theory methods are used, comparisons are made between data and concepts using the collected data to construct and test a theory that is grounded in the data rather than comparing the data against prior expectations and previous theoretical formulations (Achterberg, 1988). A grounded theory of old adults food purchasing behaviors, therefore, should provide new information about the kinds of education and program developments that may be needed to improve nutritional status of older adults as they age in place and lead to decreased risk of chronic diseases. We approached this study with three general questions. How do older adults shop for food? What factors influence older adults' food shopping behavior? What aspects of older adults' food shopping behavior could be changed to improve their health?

2.0 Methods

2.1 Recruitment

For this study, textual data was generated by means of in-depth interview with volunteer participants regarding their food shopping behaviors. Because of the small sample size, a purposive sampling was used. Participants were selected on the basis of specific criteria to share broad similarities (Lincoln & Guba, 1985). The participants were recruited in a number of ways. Participants were recruited through an advertisement sent out to a local nutrition extension representative. The extension agent disseminated the advertisement to community members aged 65 and older. The managers of senior housing developments were also contacted for permission to distribute advertisements to their residents. Those residents who met the study criteria (aged 65 or older, shopped for their own food and prepared their own meals) and were interested, were contacted to confirm the purpose of the study and to set up an interview time. One researcher completed all the interviews. Twenty-six older adults volunteered for a one-time interview.

2.2 Interview Procedure

The interviews were semi-structured with a set of questions to explore participants' food shopping behaviors. Each interview was conducted on a one-to-one basis with the participant and the interviewer. Interviews took place in a Midwestern metropolitan city at the participant's place of residence. Prior to each interview, participants were told the purpose of the study and were asked to talk and answer questions about their food shopping behaviors. Each participant was given a consent form, was assured of confidentiality and informed that they could stop the interview at any time. Interviews lasted between 1 and 1.5 hours. Interviews were tape-recorded and then transcribed verbatim. Transcriptions were each approximately five pages in length.

2.3 Data Analyses

The analyses of the verbatim interview transcripts were completed using a framework outlined by Spiggle (1994). Each of the interview transcriptions were read several times, arranged into sections by questions, and coded by two researchers. Because the questions were open-ended and the participants were encouraged to discuss all food shopping behavior, it was possible for comments to be made about a specific topic at a different time than the original question. Additional out-of-sequence responses were noted and were added to the appropriate section so that all related responses were analyzed together. Initial categories were developed by labeling key words, phrases, and concepts during coding. Initial categories that were developed by each researcher were compared, negotiated, and revised until complete agreement was obtained between the two researchers. Initial categories that shared common features were grouped into a more general category.

Categories that emerged in the beginning interviews that were not anticipated were followed in subsequent interviews. Towards the end of the study, no new concepts or categories developed indicating saturation of the data.

3.0 Results

3.1 Participants Characteristics

Participants' ages ranged from 65 to 84. The majority of participants were female (92%). All participants were retired. Participants either lived alone (54%) or with a spouse (46%). Participants lived in single- family homes (62%) or senior housing establishments (39%).

3.2 Categories that Developed

Four main categories that influenced food purchasing behavior from analysis of the textural data were identified. Some quotes are chosen to demonstrate the data.

3.2.1 Routine shopper

Older adults repeated the same food shopping routine regularly at the same location because it made their food purchasing quick and easy. Most participants made a list before shopping, shopped regularly once a week, and always went to the same store. Older adults chose a particular store because of familiarity with the store layout and products available at the store of choice. The majority of older adults navigated the food store the same way each time they shopped.

I very much have a routine. I start at one side of the store and got to the next. I like to do routine things in the routine places. Familiarity makes [food] shopping easy. Follow the list, cross things off so you don't forget something. Following the same routine make easier, not to forget anything... I find it easy to food shop when I know where things are in the store and I go to the same store every time. It's difficult to go to a new store and find the items on your list, especially if you are in a hurry.

3.2.2 Purchasing staples

Older adults did not often plan meals, but routinely ate the same foods or meals because they were easy to prepare, and they enjoyed them. They purchased items that would be used on a constant basis and would keep those items available in order to create meals. Participants made food shopping lists based on staples and therefore had potential meals that could be created from these staples. Older adults purchased foods based on their habitual and unconscious ongoing food preferences and knowledge of how to prepare these foods.

Unless I have guests, I do not plan meals. I like to keep a good repetition on what we eat. I almost buy the same things because they are what I like and what I eat. And, I know how to cook them. Fine if I have the same meals because that's what I like.

3.2.3 Lack of interest in learning new purchasing behaviors

Older adults learned how to shop for foods by themselves and believed they did not need to learn more about food shopping and healthy eating. Participants often indicated that they learned how to shop from their mother or by trial and error of shopping on their own as an adult. Participants believed there wasn't much use for learning new concepts regarding food shopping as their needs were generally met.

I learned by myself, just from doing and budgeting when I was young. I guess I would say that I have learned everything I need to know. I'm not going to learn anything new. I buy the products I like and what we will eat. If I haven't learned it by now, I probably don't need it.

Older adults believed their meals were well balanced in terms of nutrition. Most of them stated that they did not calculate the nutritional value of their food when they made purchases, but they believed that if there was protein (generally meat in their meal) and vegetables, then their menus were fairly well-balanced. One participant stated, "I eat meats, vegetables, and fruits. That's all you need." Overall participants expressed that they did not think they needed to learn new information when making food purchases regarding nutrition.

3.2.4 Price and convenience over nutrition

Price was the main consideration when older adults decided which foods to purchase. Participants indicated they used the unit price sign located below the food items when making a food purchasing decision. A major information source for older adults in grocery shopping was in-store advertisements.

A majority of the older adults learned about food buys or new food choice ideas mainly from in-store advertisements. A few participants looked for other sources such as cookbooks and magazines to generate new food choice ideas. Older adults frequently sought out bargains or specials while at the store, especially those that were listed in the advertisements available in the local newspaper or located inside the store next to the shopping carts. In addition, approximately half of older adults interviewed used the advertisements available in the newspaper and coupons in order to prepare their list of foods they were planning to purchase.

I usually look at the ads on Wednesdays when they come out. I look for specials on meat definitely. I usually plan my meals around the specials on the meat. I look for the meat and stock up on items that I will use if they are in the ads... I also look for deals either in the ads or the in-store signs on things that I use a lot. If it is something I use frequently, I will buy a few of them if it is a good deal.

Older adults were aware of nutritional information sources, such as Nutrition Facts panels and ingredient declarations on food packaging when they shopped for food. However, not many of them utilized this nutritional information when they determined food choices and actively looked for nutritious food. While more than half of older adults interviewed checked ingredients and Nutrition Facts panels, only a few indicated that labels influenced their purchases. Some older adults indicated that they only looked at one or two nutrients on the label.

I look at the labels, I guess. I look to see how many calories and fat there are. I get items that are my usual, and I already know the labels. I don't always buy foods that are good for me, though. I know what I am supposed to choose, but I don't always do it.

Eating alone was common for older adults and cooking for one person was not perceived as enjoyable. Cooking for one person was also difficult because they had to look for smaller portions when purchasing food items and/or scale down recipes. Thus, older adults chose to purchase foods that were quick and easy to prepare. Most participants indicated that they purchased frozen microwavable meals fairly often since they did not want to cook and they believed these were nutritionally balanced meals.

I often buy cans and frozen entrees. They are convenient and easy. Now I am alone. I've never been much of a cook... Sometimes I do not feel like cooking for myself and I put one TV dinner in the microwave and I have a fairly well balanced meal.

Once older adults prepared food, they indicated they ate them at more than one meal throughout the day. Most of the participants did not cook more than once a day. One participant stated, "I cook four or five meals a week and then eat the leftovers."

4.0 Discussion

Previous research indicates that despite older adults recognizing the importance of nutrition in their food choices, their food choices are monotonous and nutritionally inadequate (Drewnowski, Ahlstrom-Henderson, Driscoll, & Rolls, 1997). This may be due to older adults' lack of variety in food purchases and potentially having inaccurate or insufficient nutrition knowledge regarding foods purchased. The researchers of the current study found that older adults purchased the same foods as they generally repeated their food purchasing routine.

Loss of appetite and low energy intake are common concerns with aging (Bernstein & Munoz, 2012). No single food will provide all nutrients for health and eating a variety of foods can reduce the risk of heart disease, stroke, and diabetes (Heathy eating, 2014). Older adults can potentially increase their food intake if they consume a variety of foods (Wansink, 2004). Older adults' food shopping routines may prevent them from eating a variety of foods and, in turn lead to possible nutritional deficiencies or increased risk of chronic disease. Thus, this research points to the need for change in older adults' food shopping routines to obtain a variety of foods and nutrients.

However, the older adults in this study were resistant to change and did not wish to change their routine or foods commonly purchased. Participants expressed their desire to make their purchasing and subsequent preparation of meals easy while having confidence in the quality of food they purchased and were most likely consume. While nutritional knowledge is one of the factors that affect the quality of food intake among older adults (Baker & Wardle, 2003), participants were not interested in increasing their nutrition knowledge. Therefore, the most pressing issue may be that older adults do not recognize the need for learning new information and behavior change.

Older adults might not use nutrition information because it is not easily obtained. A previous study reports that older adults think that nutrition is more important for food choice compared to cost or convenience (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998). However, the researchers in this study found that price and convenience were the main considerations when older adults decided which foods to purchase.

While unit prices, bargains, and coupons affected their food purchases, ingredient labels and Nutrition Facts panels did not seem to influence their purchases as strongly. A major information source for older adults in food shopping was in-store advertisements and the key information in these advertisements is price. Older adults might use in-store advertisements as their information source because it is easy to access and interpret. The in-store advertisements are conveniently located inside the food store next to the shopping carts and shoppers can easily compare prices using these advertisements. However, there is no nutrition information available in food stores except packaged foods. Moreover, it is not easy to determine better option in comparing nutrients since there are many different nutrients and some of them have to be low and some of them have to be high. Older adults looked at only a few nutrients such as calories and fat because they indicated they were knowledgeable about these nutrients and generally chronic diseases associated with these nutrients. Older adults may not be knowledgeable of the importance of additional nutrients on the food label and therefore may not use this information. A previous study reported that consumers were confused by most information on the nutrition label (Cawburn & Stockley, 2005). Perhaps, if nutrition information is simplified on labels, older adults might be inclined to use the nutrition information to determine better food choices. Older adults did not appear interested in changing their food purchases and subsequent meal options as they generally only prepared food for themselves or one other member of the household. Older adults reported that they prepared food infrequently, consumed leftovers, or ate less nutrient dense foods such as frozen entrees when they were alone. Older adults have also been found to consume less food when they eat alone (McAlpine, Harper, McMurdo, Bolton-Smith, & Hetherington, 2003). Eating with others may help older adults improve both the quality and the quantity of foods they consume.

4.1 Strengths and Limitations

Strengths of this study include interviewing enough participants to reach saturation in order to gain rich data to explain food purchasing behavior in more detail. This study also was able to provide an understanding and description of old adults' personal experiences with food purchasing. Limitations to the research include the findings may not be generalizable outside of the Midwestern setting that the interviews took place.

4.2 Implications for research and practice

Health educators could influence older adults' purchasing behavior and subsequent health outcomes by encouraging older adults to seek nutrition education by emphasizing the need for incorporating new foods and increasing nutrition knowledge in regard to obtaining adequate nutrients and calories as they age. Educators could make these education opportunities easily accessible and enjoyable to older adults in order to attract them as most older adults in this study were not currently interested in learning new information regarding their food purchasing. Providing educational opportunities at point of purchase or in-store could help increase the desire to make a change. Moreover, older adults may have mobility difficulties so they are not likely to travel to participate in an education program. Therefore, educators could collaborate with food stores in promoting nutrition education and products in-store. Educators could set up a booth and offer a free analysis of nutritional values of what older adults purchase to help them find insufficient nutrients in their meals. Older adults could obtain information about nutrients of foods they purchase, missing nutrients in their purchases and suggested foods to fulfill their nutrition need at the booth. Meal ideas which emphasize balanced nutrition could be included in food stores' advertisements. In turn, food stores could offer special discounts on the needed items for the suggested meals.

Educators could collaborate with food stores to construct a special section in the store that groups food items which provide adequate nutritional combinations and post nutritional information for these suggested menu ideas.

Health educators could attempt to slowly change older adults' food shopping routines in order to improve variety in older adults' food purchases and therefore diets. Older adults indicated uneasiness with purchasing new foods due to unfamiliar tastes or difficulty preparing new items. Offering cooking demonstrations and sample tastings that are specially designed for older adults could help older adults try new foods and learn new cooking skills and lead to changes in food purchasing. Many older adults looked at Nutrition Facts panels; however, purchases were generally not influenced by them. Nutrition Fact panels May not be intuitive, particularly for older adults, as much information is provided in a small space on the package. Educators could provide older adults with simple tips for using more information on the Nutrition Facts panels beyond simple calories and fat grams.

In addition, if retail food stores use their own in-house nutrition scoring system, older adults could be educated on these simple tools to improve nutrient quality of their food purchases and theoretically their dietary intake.

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