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“A bone of contention...”: Perceived barriers and situational dependencies to food preferences of nursing home residents

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Abstract

This study investigated barriers to fulfilling food preferences from nursing home (NH) residents' perspectives, and the reasons preferences changed (situational dependencies). Interviews were completed with 255 residents in 28 NHs across greater Philadelphia, PA using six food items from the *Preferences for Everyday Living Inventory-NH* (PELI-NH). Participants were predominantly white (77%), female (67.8%), and widowed (44%) with high school educations (48%). Content analysis was used to identify $n=386$ barriers and $n=57$ situational dependencies. Participants reported provider policies and staff proficiency as environmental barriers to preference fulfillment regarding what, when, and where to eat. Perceived health and personal resources were barriers to obtaining snacks, take-out, and dining out. Situational dependencies resulted from residents' perceived health and quality of family relationships. Results have implications for providers to centralize food preference fulfillment in care planning, and to use food preferences to address dining quality concerns.

Keywords

Food preferences; older adults; long-term care; nursing homes; person-centered care

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INTRODUCTION

Core values guide behavior and contribute to self-identity.¹⁻³ Schwartz and Bilsky³ classified values into ten domains, such as tradition and self-direction, that broadly guide decision-making across cultures. Specifically, core values are important indicators of food preferences,^{4,5} and core food values can be categorized as physiological, such as taste and nutrition, or socioemotional, like perceived food quality and traditions. Older adults often adapt their physiological food values to accommodate age-related changes, such as changes in taste, in smell,^{4,5} in perceptions of health,^{1,6} and in functional abilities.^{7,8} Age-related declines in taste perception could cause limited dietary variety among older adults,⁹ while lower olfaction sensitivity has been linked to lower nutritional intake.^{10,11} They may also adjust their food values based on physiological changes in digestion.^{7,8} Finally, Connors et al.¹ discovered that some individuals reprioritized their food values to accommodate changes related to age and illness.

Socioemotional food values, like perceived food quality,¹² social relations,¹ emotional connections,^{13,14} and traditions,^{1,5,7} are important throughout the life course.^{1,8,15} Specifically, perceptions of food quality are correlated with overall satisfaction with care among institutionalized older adults.¹² Several studies have noted that nursing home (NH) residents value foods that incite feelings of home, and the caring nature of preparing and sharing food.^{13,14} Moreover, older adults use food as means to celebrate, reward, express feelings, and cope with loneliness¹⁶; they connect familial food traditions to idealized memories of childhood^{7,8}; or they may prefer traditional local and ethnic cuisine.^{1,7,8} Some have generational values, favoring cuisine that was popular during their adolescence and young adulthoods.⁸

We all negotiate our socioemotional and physiological food values within our environments. Individuals may need to redefine their food values that have been established throughout their life courses when they enter into new environments, like NHs.^{1,14} This often results in dietary dissatisfaction⁷ which, in culmination with physiological limitations, can be the impetus for poor appetite¹⁷ and malnutrition among NH residents. There is limited literature on how the intersectionality of physiological and socioemotional food values shape NH residents' food preferences. However, understanding residents' food preferences, and their core values that shape these preferences, could have provider implications in improving dining satisfaction, and associated risks like poor appetite. This is an especially important area of study in the light of the Pioneer Network New Dining Practice Standards,¹⁸ which call for NH providers to cultivate person-centered dining practices.

The primary purposes of the present study were to: 1) investigate the environmental and personal barriers to important food preferences of NH residents, and 2) explore the rationale behind important food preference changes of NH residents (situational dependencies) via secondary data analysis. We also aimed to examine the reasons residents felt their food preferences were fulfilled (preference congruence). Their views on barriers, situational dependencies, and preference congruence provide key insight into the connections between food values and food preferences within NHs, guiding providers in individualized dietary planning.

METHODS

Residents were recruited from a convenience sample of NHs within a 50-mile radius of the Philadelphia, PA metropolitan area. Out of the 35 NHs approached, 28 provided referrals that yielded participants in the study. Participating NHs were representative of providers in the greater Philadelphia region, which consisted of 18 non-profit NHs (64.3%), 9 for-profit NHs (32.1%), and one government NH (3.6%). The NHs had an average of 178 beds, ranging from 61 to 396 beds.

A designated NH contact in each NH introduced the study to residents or their families. This person obtained direct consent (when possible) from residents to share their information with the research team, and they notified their responsible parties. Alternatively, they used a phone script to seek consent from family members of residents who were unable to provide it. The residents' respective attending physicians and/or directors of nursing ensured the medical stability of each participant. Additional inclusion criteria included cognitive capability (Mini-Mental State Examination; MMSE ≥ 13),¹⁹ the ability to be interviewed about their preferences in English, and residency in the NH for at least one week per request of the providers. At least one week of residency allowed residents to get past the most acute adjustment phase to be approached for participation in the study. In addition, we sought to include participants that had an expected future residency of at least three months in order to fulfill the aims of the parent study.^{20,21}

The designated contacts identified 581 residents for participation, of which 342 were enrolled. Family refusal or medical instability accounted for 92 non-enrollments, and 147 residents personally declined to participate. Additional recruitment details are reported elsewhere.²² Face-to-face informed consent was sought at both the baseline interview (T1), and the follow-up interview three months later (T2), using simplified language and interactive questioning to ensure comprehension. Among the enrolled participants, $n=255$ completed interviews at T1 and T2. Attrition between interviews was primarily caused by study withdrawal, NH discharge, or death. All research processes were approved by the institutional review board.

Interviews were conducted using the *Preferences for Everyday Living Inventory-NH* (PELI-NH).^{20,23} The PELI-NH is a validated, inclusive tool used to investigate 72 psychosocial preferences of NH residents. It ascertains the content, meaning, and importance of individual preferences in domains of social contact, growth activities, leisure activities, self-dominion, and enlisting others in care.²⁴ The data for this study come from $n=984$ spontaneous comments that were made by participants when answering six food preference PELI-NH questions at both T1 and T2 (see Table 1). These verbal comments were recorded verbatim, and were used to code barriers, situational dependencies, and preference congruence.

We identified barriers, situational dependencies, and preference congruence from transcribed resident comments using content analysis strategies of Graneheim and Lundman.²⁵ We used a previously developed coding scheme for NH resident preferences,²⁶ consisting of 27 codes, which can act as both barriers and situational dependencies. A particular code was considered a barrier if it was the reason one's preference was not fulfilled (e.g., perceived

personal health could be a barrier if diabetes was the reason someone felt they could not eat preferred snacks). The same code was a situational dependency if it was the reason one perceived a preference was more important in some situations, and not as important in other contexts (e.g., perceived personal health could be a situational dependency if someone felt it was only important to have snacks when needed to manage diabetes, but unimportant otherwise). Typically, these statements were preceded by the words “it depends”. These codes were categorized into four main domains: facility environment (e.g., facility policy, facility schedule); within-person (e.g., perceived health status, personal schedule); social environment (e.g., type of interactions); and global environment (e.g., weather, current events). A separate preference congruence code was used when a resident indicated in a verbal comment that a preference was important, and that the preference was being met. For example, a resident may have explained that she enjoys eating snacks, and several preferred snacks are offered in her NH.

Each of four research team members coded approximately 1,973 lines of the total dataset, or about one-fourth of the data. All team members were also randomly assigned to review 25% of another member’s coding. General coding guidelines included that individual comments could be coded as multiple barriers or situational dependencies if they referenced multiple codes. Likewise, a comment was coded as a barrier and situational dependency if it indicated a situation that both restricts preference fulfillment and changes preference importance.²⁶ During the initial coding phase, dissonance among double-coded comments were reconciled through group agreement at weekly team meetings. In the present study, barriers and situational dependencies were identified within the thematic domains of facility environment and within-person. No responses fell into the thematic domains of social environment and global environment.

RESULTS

NH residents lived in their provider communities for an average of 924 days (SD 900.6), had a mean age of 81 and an average MMSE score of 25 (SD 3.9; Range 13–30). The majority were white (77%) widowed (44%) females (67.8%) with high school educations (48%). Of the 984 verbatim comments provided in response to the six food questions of the PELI-NH, 386 (39.2%) were coded as barriers, 57 (5.8%) were coded as situational dependencies, and 96 (9.8%) were coded as preference congruence. The remainder of the comments were coded as no barrier, situational dependency, or preference congruence.

Facility Barriers

Residents cited facility barriers ($n=191$) across all six food preference questions. More residents reported barriers regarding what, when, and where to eat ($n=181$) than barriers to obtaining snacks, take-out, and dining out ($n=10$). Facility policy ($n=59$) and staff proficiency ($n=25$) were common barriers to what to eat, and facility schedule ($n=90$) restricted resident choice in when to eat. Less frequently, facility resources and human resources were barriers to fulfilling food preferences (see Table 2).

Facility policy led to a false sense of choice for some residents. Sarcasm occasionally resonated around choice in what to eat like, “choice of two. Big choice.” Residents

described that “a main menu and substitute is provided” but some “rarely get the items [they] ordered.” Specifically, dietary employees occasionally gave residents the meal option that was “better for us” and residents were “told they don’t have the items” they requested. One resident stated she had been “working on it for four years.” Others expressed their dissatisfaction more generally, explaining that “the same foods are served each month and there is not enough of a variety.” Some offered improvement suggestions, such as “dietary to include a little note explaining why she hasn’t received what she has ordered. That way she won’t keep asking for the same thing.”

Many participants felt that staff and residents “go by the rules” regarding when and where to eat due to limiting facility policy and facility schedule. They expressed that mealtimes were “given” at “certain” times. Entities responsible for making meal schedules were regarded as “they” or “them” in comments like “they tell us when” and “it’s their rules.” “The nursing home routine” was mentioned to explain how residents “go by what they tell me.” One resident placed moral emphasis on mealtime routines: “It’s not right to choose your own time because there are rules to follow. It’s very important to go by what they say.” Many residents expressed desire to choose mealtimes because they were not “routine eater[s].” However, others indicated “that’s impossible” because staff “have to do it when they can do it,” as “there are too many people.”

Rigid mealtimes had serious implications for some residents, like “if you don’t show up, you don’t eat.” One individual reported not eating “a couple of times” in one week because food “wasn’t available” at convenient times. Several comments were made about the incongruence between “sleep habits” and mealtimes because “some people wake up late and miss breakfast.” Scheduled mealtimes made a few others feel like they were living in a “big factory” where “they try to get you in the dining room early. Gives you the feeling that your time is not worth anything.” One explained that residents are “herded in there and then you wait,” and another: “We are the last feeding here. They don’t care about us. They feed us like animals.” Facility policy restricted some residents to eat “Where else?” but in “the dining room, and that’s where you eat [laugh].” Some say they would “eat in my room if a choice” while others perceived “no choice. It’s just the dining room or your room.” In the dining room, some “have choice of the table” while other residents “have to stay at the same spot.”

Many felt that poor staff proficiency was the reason their two meal options were “bad to worse,” in which “often the substitute is worse than the main menu.” The “cheap quality” food was described as worse than “food at hospitals.” This presented as a strong “bone of contention” because “food is the highlight of anyone’s day and when you can’t look forward to it, it’s awful.” Some residents had relatives to “bring stuff at dinner time” or they try to “eat what [they] can.” Others expressed “If I don’t like it, I don’t eat it.” Residents explicitly placed blame on staff: “they got a new chef, but it doesn’t seem to be working. I don’t think it’s the chef, I think it’s the workers that don’t follow orders,” and the “kitchen is lousy, no experience, boss should be in earlier to check on workers, they never correct issues.”

Limited facility resources were regularly reported as barriers to realistically obtaining snacks, take-out, and dining out. A vending machine was offered in one facility, but it was

“expensive” and “not a good selection.” For a resident with Celiac disease, the snacks offered were “stuff I can’t eat.” Others reported the inability to eat out as an “independence issue” because they did not have “transportation to go anywhere” and felt “it’s inconvenient to have to take an aide with you.” A few residents indicated they “don’t do” take-out in their facilities, and one explained it’s “rather complicated here. Not sure how logistically I would do it.” Others offered suggestions: “if the staff was more open to providing snacks and had a greater variety of snacks available,” and “maybe once a month if they took you out.” Human resources were reported as barriers to obtaining snacks “before bed” because “staff are busy,” and “sometimes they are in such a rush to get you into bed that they don’t give you a snack” which is “very frustrating and makes you very angry.”

Within-Person Barriers

Residents cited within-person barriers 195 times across all six food preference questions, 126 of which were coded as “perceived level of opportunity/choice” (Barrier 9). Barriers to what, when, and where to eat accounted for 91 of those responses, 66 of which were Barrier 9. Additionally, 104 barriers were reported regarding obtaining snacks, take-out, and dining out, 60 of which were Barrier 9 (see Table 2).

A common response to all questions was that there was “no choice” in food, with little to no explanation of why. Slightly less frequently, residents explained their preferences “if a choice” existed. Some residents, however, described that their functional abilities and perceived personal health took priority over preferences. Residents on “mechanical soft diet[s]” discussed the inability “to choose what I want because of medical reasons,” but they readily shared the preferences they perceived as unattainable, like “I love salty foods.” Others felt that they could not snack because “diabetes” or fear of “getting heavy.” Some residents explain they avoid the dining room because they “catch every disease,” and one stays away “due to PTSD.”

Many residents believed eating out was “too much of a deal” due to functional limitations and health complications. Though some of the NHs “have bus trips,” they described the process of getting out as “too involved-from getting dressed to getting the walker in the car,” some “need wheelchair assistance,” and one was “confined with the oxygen.” Eating out “was important” to many of these residents who now believe “it’s out of my sphere” because “my agility is not good.” Some perceive their functional complications as “very embarrassing” because “I have to be fed,” “I have difficulty walking,” or “I’m afraid of my bowels letting loose.” Many residents felt these potential embarrassments were the reasons they have not eaten out “in so long it isn’t funny.”

Some residents reported personal levels of resources ($n=13$) as barriers to obtaining snacks, take-out, and dining out. “Lack of financial resources” was a barrier to all three of these items, primarily take-out. A few explained they only received “forty-five dollars per month” which “doesn’t get very far.” Snacks were considered “expensive” and they needed to “have money to pay for restaurant[s].” One resident indicated needing to be “put on the trip list” to get to restaurants, while another stated she would like to eat out “if she can get somebody to get her out.” In addition to costs, take-out was considered difficult to attain because “you need someone to bring it in.” Even so, participants felt that take-out could provide “access to

food such as vegetables on a regular basis. The salads here are very rusty.” Two residents cut costs of take-out by getting “together and buy[ing] hoagies a lot.”

Those who felt they had access to snacks, take-out, and dining out either had money to obtain them, or family/friends to help acquire them. One resident “never thought about” barriers to obtaining snacks because “my family brings me things.” Snacks and take-out were reported to be brought in by sons, daughters, and granddaughters. Some reported snacks and take-out were solutions to “the lack of food I eat here,” and “I get my bacon, that’s why I don’t mind the food here.” Of those who ate out, most reported they were able to do so by going “out with family,” particularly on “special days.” Residents often reported schedules for when they can expect to get snacks, take-out, or eat out like “once a month” and “every two weeks.”

Situational Dependencies

Fifty-seven situational dependencies were reported across all six food preference items, sixteen of which related to what, when, and where to eat and 41 pertained to obtaining snacks, take-out, and dining out (see Table 3). Fourteen situational dependencies related to level of interest or type of non-staff relationship, in which residents usually indicated their level of interest in eating out “depends on who I’m with.” Many stated they only ate out “if I go with my family,” and they reminisced on past outings like “father-daughter dates to talk about anything.” One resident mentioned she recently turned down “a lady [who] wanted to take me out” because she did not desire the woman’s company.

Fifteen residents changed their preferences in where to eat, snacking, and take-out dependent on their perceived limits of health and functional ability. Many residents changed their snacking preferences if they “don’t want to gain weight,” particularly if they were individuals with diabetes. Others indicated they only ordered take-out if their health was “okay” or “it won’t make you sick or fat.” Regarding where to eat, six residents made similar comments to “Always in dining room or if not feeling well in my room.”

Other residents changed their preferences on the conditions of the NHs resources, policies, and schedules. A few cited that they would like to eat out if staff “took you out” and “on a bus trip if it is available.” Others preferred to eat in the dining room, but it depended if mealtimes fit within their personal “schedule that day.” Finally, six residents demonstrated that they did not have a need to satisfy their snack and take-out preferences “as long as [they] eat good” meals offered by the facility.

Preference Congruence

Participants indicated 96 instances when their important food preferences were fulfilled, called preference congruence. Comments indicating preference congruence constituted about 9.8% of the 984 verbatim comments. One resident did not mind facility policy regarding where to eat because she was “assigned to a table with [her] friend.” Another resident grew to accept policy when she “found out [she] had more choices in the dining room” than previously perceived. Other residents ate out when “they have a bus,” and still others were able to retrieve snacks from “a cart that goes around,” the “snack bar,” and a “snack closet out in the living room.” Additionally, residents were satisfied when the

“nursing home routine” corresponded with established habits. For example, some residents explained they were content with a five o’clock dinner time because it corresponded to their mealtime at home.

DISCUSSION

This study highlights three major findings about food preferences among NH residents. First, NH residents mentioned considerable facility barriers to their food preferences being met, including facility policies that limited choice, facility schedules that imposed restrictive routines, and staff proficiency that was a perceived causal factor of poor food quality. Second, residents explained how their health and personal finances prevented them from fulfilling food preferences, such as functional limitations that caused embarrassment, and lack of personal resources to obtain snacks, get take-out, and dine in restaurants. Third, participants explained that the importance of their food preferences changed depending on the desirability of their dining companions, their present health status, and availability of NH resources.

Facility Barriers

Prior studies found that incongruence between food preferences and food options commonly led to dietary dissatisfaction among NH residents.^{7,14} We found similar results among residents who felt that facility policies and schedules created “no choice over what to eat.” Our participants also articulated that rules, like rigid mealtimes, often made them feel that they were “herded” into the dining room. Yet, they understood it would be “impossible” to remove all rules from the dining process as, “people would be eating all the time.” These findings are similar to those of Henkusens et al.²⁷ who explored dining experiences of persons living with dementia after they relocated to long term care (LTC) communities. They found that excessive adherence to formal and informal rules surrounding mealtimes made some residents feel that NH dining was an unwelcoming experience, but participants also indicated they understood the need for basic rules.

Additionally, residents who perceived a lack of food choice may have been guided by self-direction values, as defined by Schwartz and Bilsky,³ in which they preferred to employ independence and creativity in decision-making. Some residents expressed their self-direction values by offering innovative suggestions, such as asking staff to include notes with meals explaining why chosen dishes were not provided, yet many of them felt their ideas were not heard. Crogan et al.¹⁴ found that NH residents who perceived they had lack of control over food choices, and who felt that their input was not valued by staff, were more likely to feel isolated. This notion is further supported by Bangerter et al.²⁸ who found that care inquiry—demonstrated by staff who listened, and responded, to resident concerns—was an important theme that emerged from analysis of eight care preference items in the PELI-NH.

The majority of participants who complained about poor food quality connected it to staff proficiency, indicating that food service may be as equally important as food quality. This finding corroborates earlier work in which residents valued well-trained cooks, truthfulness from staff, caring demeanors, consideration of resident input, willingness to correct

problems, and staff who had pride in work.^{14,29} Furthermore, Kayser-Jones and Schell³⁰ connected inadequate staffing with low food intake among NH residents. In addition to proper staff training to assist with complex food needs, the study argued that mealtimes should be pleasurable, dignified experiences. For example, a staff member who serves a resident's oral nutritional supplement (e.g., Ensure) in a decorative glass as a snack may have more success than serving it with a meal. However, residents commonly used general pronouns like "they," "their," and "them" to explain the elusive others who created the rules and routines that restricted their food choices. This vague otherness conflicts with common socioemotional food values, such as ties to tradition, family connection, and personal expression, which use food as a vehicle of interpersonal connection.

To promote person-centered dining culture, staff could periodically join residents for meals, and facilitate mealtime conversations among residents, to reminisce about food traditions and favorite recipes. Gibbs-Ward and Keller³¹ found that participants in their study—residents in special care units of LTC communities—were likely to respond to social cues of caregivers, but were less likely to initiate conversation, themselves. Residential activities could also include cooking demonstrations as a way to familiarize residents and dining staff, and build trust in staff skills, ingredients, and food quality. These examples provide insight into how socioemotional food values, such as relationships between staff and residents, can be used to minimize malnutrition.

Within-Person Barriers

Most adults prioritize values when considering food choices that incite value conflicts.¹ Food preferences could be considered within the context of the food choice process model,³² which illustrates how experiences, contexts, and individual factors throughout the life course contribute to the development of "personal food systems" that guide food choices. Food preferences could be viewed as reflections of how individuals prioritize their food values within their personal food systems. For example, some participants stopped snacking to avoid weight gain or manage diabetes, thereby exhibiting that their health-related preferences were more dominant than their taste preferences. This presents an opportunity for staff to discuss how neither health and tasteful food, nor diet and physical activity are mutually exclusive. One recommendation is to encourage collaboration between activities and dining services to plan programs, such as chair exercises, after meals to assist with weight management.

Situational Dependencies

Occasionally, residents explained that the importance of specific food preferences varied with circumstances. Many residents mentioned their level of interest in eating out was dependent on their companionship. This supports the findings of Abbott et al.³³ in which some residents changed their importance ratings for social contact depending on how much they valued the specific companionship. For example, a resident may want to go out to eat with family to celebrate a birthday, but may not want to go out with the gardening club. These patterns are consistent with socioemotional selectivity theory (SST),³⁴ which posits that older adults purposefully narrow their social circles to maximize their strong interpersonal experiences with a select few.

Other residents felt the importance of eating snacks or take-out changed based on their perceived health at given times. They viewed snacks and take-out as means of enjoyment and would only eat them if their current health was “okay.” This supports previous findings that older adults were willing to adapt their physiological food values to their perceived health needs,^{4,5} and is another example of how food preferences can be manifestations of food value prioritizations.

Preference Congruence

This study focused on barriers and situational dependencies to food preferences, but instances of preference congruence provide key insight into mechanisms that residents used to successfully re-negotiate their food values in NHs. For example, some participants indicated that they were satisfied with facility mealtimes because they coincided with their lifelong routines. We understand that socioemotional food values are shaped in early life, and remain relatively consistent throughout the life course—an example of continuity of aging theory.³⁵

Limitations

This study provided key insights into the connections between food preferences of today’s NH residents and their underlying food values, yet there are some limitations. First, this was a secondary data analysis and information related to the meal services in each NH was not collected. Future studies should include information about meal processes, whether residents are consulted, and how choice is supported in selecting food options. In addition, while we did include individuals with mild and moderate cognitive impairment, we cannot generalize results to those with severe cognitive impairment (MMSE<13). Similarly, we had representation from Caucasian and African American nursing home residents, but the parent study failed to meet the recruitment goals for Hispanic individuals.

Furthermore, the food preference questions of the PELI-NH were designed to elicit content on common dining preferences, but they are not exhaustive of all food preferences among all NH populations. Some residents did provide additional information, such as preferences to eat with family, or to choose their own seats in dining rooms. However, those who offered spontaneous comments were likely systematically different than those who did not, potentially biasing the data. Finally, some residents made similar comments at T1 and T2, which may have inflated the frequency of specific barriers or situational dependencies. Finally, there is tremendous variability in the dining practices of NHs nationwide, and the comments supplied in this study only reflect the experiences of the residents in the participating NHs located along the East Coast.

Implications for providers

Results from this study indicate that residents can and do express a wide variety of systematic barriers to their food preferences. Many barriers are embedded within the facility environment and are directly actionable, thereby providing key insight into how NHs can adapt practices to honor food preferences. Specifically, providers should focus on three elements of person-centered dining—culture-change, communication, and continuity—to help fulfill the food preferences of their residents. An organizational level example that

reflects this movement includes moving to restaurant style dining, in which residents are asked what they want to eat, daily, instead of completing a meal ticket a week in advance. Furthermore, incorporating diet histories into move-in processes can help staff tailor care plans to resident food preferences. Questions such as, “have you ever followed a special type of diet, do you have any food allergies, and/or are there ethnic or cultural foods you enjoy?” would complement the PELI-NH information for inclusion in the care plan.

Encouraging staff to consider their own food preferences could jump-start person-centered dining discussions. Staff may become less task-oriented and more person-centered as these conversations about food preferences demonstrate the importance of choice in fostering their own autonomy. For example, administrators could use these conversations to encourage staff to retrieve requested items for residents instead of saying, “we’re out of that” to save time.

A monthly food committee, open to all, would allow staff (including direct care workers) and residents to connect over shared food values. Committee activities for residents who value self-direction could include trying new foods and providing high-level suggestions for dining practices. The committee would also serve as a platform to understand the regional preferences of residents with more traditional food values.³ This could be particularly important in NHs that use corporate menus across large geographic areas, which may not reflect regional nuances. The food committee, in conjunction with activities, could set up a food fair where various vendors are invited to prepare 10–12 new items. The food committee could develop a short tool to measure satisfaction with items, using inquiries such as “is the food served hot?” and “would you want to see this item on the menu?”

Food committees also provide a forum for staff and residents to improve upon communication. Providers could explain why some food preferences cannot be met, and why other choices are frequently offered. This understanding may increase residents’ perceptions of dining staff proficiency in fulfilling food preferences. One case study of a continuing care retirement community in Toronto highlights the importance of food committees in promoting person-centered dining practices. This study found that regular meetings, like food committees, were important facilitators to communicating and incorporating person-centered dining in the community³⁶.

Finally, dining staff who consistently serve specific residents and/or work during specific mealtimes would learn resident food preferences and habits. They would be able to recognize any significant changes in preferences even as residents move between neighborhoods, which both serves to increase dining satisfaction and minimize malnutrition. Additionally, providers could inquire about dining experiences not only within the facility, but also after residents eat with family or dine out. This would help providers understand dining habits in varied settings, and residents may be able to articulate their dining preferences most clearly when they can reference a recent experience of eating in a home setting with family, or eating in a restaurant.¹⁴ At little or no cost, providers can then work to emulate the most important components of these dining atmospheres, like playing familiar music during mealtimes, or serving family style meals.

Understandably, nursing home leadership may encounter barriers to implementation of these person-centered dining practices. Barriers could include misunderstandings about food and dining regulations among staff, and staff who are accustomed to task-oriented work. Strong leadership and appropriate staff education may help NHs overcome these barriers.

A committed vision to person-centered dining, strongly advocated by leadership, is a key facilitator to implementing dining culture-change³⁶. Importantly, leadership should also facilitate communication throughout the NH to ensure that culture-change initiatives are shared and understood among all staff. One-way communication in which leadership dictates a dining change, like open dining hours, may generate staff resistance if they feel their feedback, concerns, or questions are not considered. Rather, leadership could use more collaborative communication models, such as Learning Circles, that involve staff in decision-making processes, and ensure inclusion of all voices³⁷. Leadership should also develop a strategy to communicate with team members who were not present for these activities.

Staff education about dining change may require a twofold approach: 1) ensuring staff understand the role of person-centered dining in current dining regulations; and 2) creating staff buy-in for person-centered dining culture. First, some staff may prioritize residents' health and safety through strict adherence to diets that include texture modification, fluid restriction, or sodium reduction to name a few. These staff may not be aware that current CMS regulations require NHs to consider both residents' needs and preferences in dining.³⁸ Clear education about these regulations could help staff develop more balanced perspectives on residents' rights, regulations, and residents' health and safety. One resource that could help NH providers promote shared decision making when they perceive a food preference involves risk is The Process for Care Planning for Resident Choice toolkit³⁹ (found at preferencebasedliving.com/?q=honoring-preferences-when-choice-involves-risk). This process was developed to both mitigate risk and promote choice.

Additionally, observation can be a powerful tool to help staff better understand the relatively abstract concept of person-centered dining. Oftentimes, management attends professional conferences and other networking activities that provide them more holistic perspectives on dining culture-change than direct care staff. Management could use these events to build connections with a NH that has successfully implemented person-centered dining. If resources allow, staff should have the opportunity to visit the NH, observe its dining practices, and ask questions. Alternatively, management could arrange for in-person talks or video conferences with staff and leadership from the model NH. Such interactive forums would allow for both observation of successful dining culture-change, and opportunity to discuss questions or concerns. These forums could be supplemented with Ted Talks, webinars, and resources from organizations like Pioneer Network.

Strong leadership that practices open communication with staff, and a commitment to education about person-centered dining, could help overcome barriers to implementation of person-centered dining practices. However, NHs should also recognize that dining culture-change is a long-term process that requires time and patience. To build momentum for dining culture-change, NHs may want to begin the process with smaller, more attainable

practices like open dining hours during breakfast, only. This could have a large impact because it would offer residents a choice in dining time, and it would allow them flexibility in their morning routines and wake times. Additionally, these smaller changes provide staff the opportunity to celebrate success and advocate for continued preference-based practices. Dining is one of the most prevailing activities in the NH environment; it happens about three times a day and involves most members of the NH to some extent, including residents, staff, and management. Therefore, staff in all positions, throughout all departments, should be actively engaged in any major culture-change movements.

Overall, dining is a vital component of person-centered care, especially in light of the CMS endorsed New Dining Practice Standards.¹⁸ Central tenants of these standards include diets created around individual preferences, honoring residents' decision-making power, and providing meaningful food choices.¹⁸ Providers are tasked with the challenges of simultaneously combating malnutrition in their communities, honoring strong-held, varied food preferences among their residents, and adhering to quality standards. While the challenge is great, this study demonstrates that 1) residents willingly share their food preferences, but they also understand that not all individual food preferences can be met; and 2) understandings of how residents' core values shape their food preferences can give providers key insights into the reasons behind perceived barriers and situational dependencies to food preferences in NHs.

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REFERENCES

1. Connors M, Bisogni CA, Sobal J, Devine CM. Managing values in personal food systems. *Appetite*. 2001;36(3):189–200. doi:10.1006/appe.2001.0400 [PubMed: 11358343]
2. Kluckhohn C. Values and value-orientations in the theory of action: an exploration in definition and classification In *Toward a General Theory of Action*. Cambridge, MA: Harvard University Press; 1951:388–433.
3. Schwartz SH, Bilsky W. Toward a universal psychological structure of human values. *J Pers Soc Psychol*. 1987;53(3):550–562. doi:10.1016/j.jifset.2017.09.008
4. Guido D, Perna S, Rondanelli M, Carrai M, Barale R, Grassi M. Multidimensional evaluation of endogenous and health factors affecting food preferences, taste and smell perception. *J Nutr Health Aging*. 2016;20(10):971–981. doi:10.1007/s12603-016-0703-4 [PubMed: 27925136]
5. Laureati M, Pagliarini E, Calcinoni O. Does the enhancement of chemosensory stimuli improve the enjoyment of food in institutionalized elderly people? *J Sens Stud*. 2008;23(2):234–250. doi: 10.1111/j.1745-459X.2008.00152.x
6. Kitsawad K, Guinard J-X. Combining means-end chain analysis and the portrait value questionnaire to research the influence of personal values on food choice. *Food Qual Prefer*. 2014;35:48–58. doi: 10.1016/j.foodqual.2014.01.003
7. Hartman-Petrycka M, Lebieadowska A, Błowska-Fajfrowska B. Place of residence affects food preferences and satisfaction with diet among the elderly. *Soc Welf Interdiscip Approach*. 2015;5(1): 114–124.

8. Laureati M, Bidoglio M, Calcinoni O, Pagliarini E. Sensory acceptability of traditional food preparations by elderly people. *Food Qual Prefer*. 2006;17(1–2):43–52. doi:10.1016/j.foodqual.2005.08.002
9. Schiffman SS. Taste and smell losses in normal aging and disease. *JAMA*. 1997;278(16):1357–1362. doi:10.1001/jama.1997.03550160077042 [PubMed: 9343468]
10. Kremer S, Holthuysen N, Boesveldt S. The influence of olfactory impairment in vital, independently living older persons on their eating behaviour and food liking. *Food Qual Prefer*. 2014;38:30–39. doi:10.1016/j.foodqual.2014.05.012
11. Toussaint N, de Roon M, van Campen J, Kremer S, Boesveldt S. Loss of olfactory function and nutritional status in vital older adults and geriatric patients. *Chem Senses*. 2015;40(3):197–203. doi:10.1093/chemse/bju113 [PubMed: 25680372]
12. Dubé L, Trudeau E, Bélanger MC. Determining the complexity of patient satisfaction with foodservices. *J Am Diet Assoc*. 1994;94(4):394–398. doi:10.1016/0002-8223(94)90093-0 [PubMed: 8144806]
13. Crogan NL, Pasvogel A. The Influence of protein-calorie malnutrition on quality of life in nursing homes. *J Gerontol Ser A*. 2003;58(2):M159–M164. doi:10.1093/gerona/58.2.M159
14. Crogan NL, Evans B, Severtsen B, Shultz JA. Improving nursing home food service: uncovering the meaning of food through residents' stories. *J Gerontol Nurs*. 2004;30(2):29–36.
15. Schwartz C, Vandenberghe-Descamps M, Sulmont-Rossé C, Tournier C, Feron G. Behavioral and physiological determinants of food choice and consumption at sensitive periods of the life span, a focus on infants and elderly. *Innov Food Sci Emerg Technol*. In press.
16. Grodner M, DeYoung S, Long S. *Foundations and Clinical Applications of Nutrition: A Nursing Approach*. St. Louis, Mo: Mosby; 2000.
17. van der Meij BS, Wijnhoven HA, Finlayson GS, Oosten BS, Visser M. Specific food preferences of older adults with a poor appetite. A forced-choice test conducted in various care settings. *Appetite*. 2015;90:168–175. doi:10.1016/j.appet.2015.03.011 [PubMed: 25772198]
18. Pioneer Network, Food and Dining Clinical Standards Task Force. *New Dining Practice Standards*. <https://www.pioneernetwork.net/wp-content/uploads/2016/10/The-New-Dining-Practice-Standards.pdf>. Published August 2011 Accessed April 2, 2018.
19. Folstein MF, Folstein SE, McHugh PR. "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 1975;12(3):189–198. doi:10.1016/022-3956(75)90026-6 [PubMed: 1202204]
20. Van Haitsma K, Abbott KM, Heid AR, Carpenter B, Curyto K, Kleban M, Eshraghi K, Duntzee C, Spector A. The consistency of self-reported preferences for everyday living: implications for person-centered care delivery. *J Gerontol Nurs*. 2014;40(10):34–46. doi:10.3928/00989134-20140820-01 [PubMed: 25199153]
21. Abbott K, Heid A, Kleban M, Rovine M, Van Haitsma K. The change in nursing home residents' preferences over time. *J Am Med Dir Assoc*. In press.
22. Van Haitsma K, Crespy S, Humes S, Elliot A, Mihelic A, Scott C, Curyto K, Spector A, Eshraghi K, Duntzee C, Heid A, Abbott K. New toolkit to measure quality of person-centered care: development and pilot evaluation with nursing home communities. *J Am Med Dir Assoc*. 2014;15:671–680. doi:10.1016/j.jamda.2014.02.004 [PubMed: 24721341]
23. Van Haitsma K, Curyto K, Spector A, Towsley G, Kleban M, Carpenter B, Ruckdeschel K, Feldman P, Koren MJ. The preferences for everyday living inventory: scale development and description of psychosocial preferences responses in community-dwelling elders. *The Gerontologist*. 2013;53(4):582–595. doi:10.1093/geront/gns102 [PubMed: 22936532]
24. Carpenter BD, Van Haitsma K, Ruckdeschel K, Lawton MP. The psychosocial preferences of older adults: a pilot examination of content and structure. *The Gerontologist*. 2000;40(3):335–348. doi:10.1093/geront/40.3.335 [PubMed: 10853528]
25. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105–112. doi:10.1016/j.nedt.2003.10.001 [PubMed: 14769454]

26. Heid AR, Eshraghi K, Duntzee CI, Abbott K, Curyto K, Van Haitsma K. "It depends": reasons why nursing home residents change their minds about care preferences. *The Gerontologist*. 2016;56(2): 243–255. doi:10.1093/geront/gnu040 [PubMed: 24814829]
27. Henkusens C, Keller HH, Dupuis S, Martin LS. Transitions to long-term care: how do families living with dementia experience mealtime after relocating? *J Appl Gerontol*. 2013;33(5):541–563. doi: 10.1177/0733464813515091 [PubMed: 24652920]
28. Bangerter LR, Van Haitsma K, Heid AR, Abbott K. "Make me feel at ease and at home": differential care preferences of nursing home residents. *The Gerontologist*. 2016;56(4):702–713. doi:10.1093/geront/gnv026 [PubMed: 26035895]
29. Evans B, Crogan N, Shultz JA. Quality dining in the nursing home. *J Nutr Elder*. 2003;22(3):1. doi: 10.1300/j052v22n03_01
30. Kayser-Jones J, Schell E. The effect of staffing on the quality of care at mealtime. *Nurs Outlook*. 1997;45(2):64–72. doi:10.1016/s0029-6554(97)90081-6 [PubMed: 9127345]
31. Gibbs-Ward AJ, Keller HH. Mealtimes as active processes in long-term care facilities. *Can J Diet Pract Res*. 2005;66(1):5–11. doi: 10.3148/66.1.2005.5 [PubMed: 15780150]
32. Sobal J, Bisogni CA. Constructing food choice decisions. *Ann Behav Med*. 2009;38(S1):37–46. doi:10.1007/s12160-009-9124-5
33. Abbott KM, Bangerter LR, Humes S, Klumpp R, Van Haitsma K. "It's important, but...": perceived barriers and situational dependencies to social contact preferences of nursing home residents. *The Gerontologist*. 2017. doi:10.1093/geront/gnx109
34. Carstensen LL, Charles ST. Emotion in the second half of life. *Curr Dir Psychol Sci*. 1998;7(5): 144–149. doi:10.1111/1467-8721.ep10836825
35. Atchley RC. A Continuity Theory of Normal Aging. *The Gerontologist*. 1989;29(2):183–190. doi: 10.1093/geront/29.2.183 [PubMed: 2519525]
36. Ducak K, Keller H, Sweatman G. Dining culture change in long-term care homes: transitioning to resident-centered and relational meals. *Ann Long-Term Care Clin Care Aging*. 2015;23(6):28–36.
37. Pact Action. The Learning Circle. <http://actionpact.com/assets/cache/learning-circle.pdf>. Published 2001 Accessed October 28, 2018.
38. Centers for Medicare & Medicaid Services. State Operations Manual, Appendix PP - Guidance to Surveyors for Long Term Care Facilities. https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltc.pdf. Published 2017 Accessed October 28, 2018.
39. Preference Based Living. Honoring Preferences When the Choice Involves Risk. <https://www.preferencebasedliving.com/?q=honoring-preferences-when-choice-involves-risk>. Published 2018 Accessed October 31, 2018.

Take Away Points

- Among the participants in the study, major facility barriers to fulfilling food preferences included limiting facility policies, restrictive facility schedules, and perceptions of poor food quality that were thought to be caused by lack of staff proficiency. Personal health and finances were also mentioned as barriers to obtaining preferred foods.
- Present health status, desirability of dining companions, and availability of NH resources were a few common factors that may have prompted some NH residents in the study to adjust their food preferences depending on their situations (situational dependencies).
- Providers should consider how residents' core values shape their food preferences. This understanding, in addition to practicing continuity, communication, and culture-change within their NHs, could help them promote person-centered dining in accordance with the New Dining Practice Standards.

Table 1.Food Preference Questions from the *Preferences for Everyday Living Inventory–NH* (PELI-NH)

How important is it to you to...
choose what you eat?
choose when you eat?
choose where to eat?
to have snacks available between meals?
order take-out food?
eat at restaurants?

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Table 2.

Count (%) of Barriers Associated with Each Category of Food Preference Questions of the *Preferences for Everyday Living Inventory-NH* (PELI-NH)

	Barriers regarding what, when, and where to eat	Barriers regarding snacks, take-out, and eating in restaurants	Total
Total Number of	N = 181	N = 10	N = 191
Facility Barriers	n (%)	n (%)	n (%)
Facility Schedule	92 (50.8)	1 (10)	93 (48.7)
Facility Policy	64 (35.4)	3 (30)	67 (35.1)
Staff Proficiency	25 (13.8)	0 (0)	25 (13.1)
Facility Resources	0 (0)	4 (40)	4 (2.1)
Human Resources	0 (0)	2 (20)	2 (1)
Total Number of	N = 91	N = 104	N = 195
Within-Person Barriers	n (%)	n (%)	n (%)
Perceived Choice/Opportunity	66 (72.5)	60 (57.7)	126 (64.6)
Functional Ability	21 (23.1)	15 (14.4)	36 (18.5)
Level of Personal Resources	0 (0)	13 (12.5)	13 (6.7)
Perceived Personal Health	3 (3.3)	7 (6.7)	10 (5.1)
Perceived Social Acceptability	0 (0)	5 (4.8)	5 (2.6)
Other Barriers	1 (1.1)	4 (4.2)	5 (2.6)
Total Number of Barriers	N = 272	N = 114	N = 386

Note: This table includes a count of barriers that were identified through coding of verbatim comments. Barriers were categorized into domains of facility environment, within-person, social environment, and global environment. No barriers were identified for social environment or global environment in relation to the six food preference items of the PELI-NH.

Table 3.

Count (%) of Situational Dependencies Associated with Each Category of Food Preference Questions of the *Preferences for Everyday Living Inventory-NH* (PELI-NH)

	Situational Dependencies regarding what, when, and where to eat	Situational Dependencies regarding snacks, take-out, and eating in restaurants	Total
Total Number of Situational Dependencies	N = 16	N = 41	N = 57
	n (%)	n (%)	n (%)
Perceived Personal Health	7 (43.8)	6 (14.6)	13 (22.8)
Type of Non-staff Relationship	0 (0)	8 (19.5)	8 (14.0)
Situational Need	2 (12.5)	6 (14.6)	8 (14.0)
Level of Interest	0 (0)	6 (14.6)	6 (10.5)
Perceived Choice/Opportunity	0 (0)	6 (14.6)	6 (10.5)
Personal Schedule	3 (18.8)	0 (0)	3 (5.3)
Functional Ability	0 (0)	2 (4.9)	2 (3.5)
Facility Policy	1 (6.3)	0 (0)	1 (1.8)
Facility Schedule	0 (0)	1 (2.4)	1 (1.8)
Other Situational Dependencies	3 (18.8)	6 (14.6)	9 (15.8)

Note: This table includes a count of situational dependencies that were identified through coding of verbatim comments.