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Research Article

Honoring the Everyday Preferences of Nursing Home Residents: Perceived Choice and Satisfaction With Care

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Abstract

Purpose of the Study: The nursing home (NH) culture change movement advocates for residents to be able to make choices about important aspects of their care. This study seeks to understand NH residents' perceptions of choice that they have in the care they receive while in the NH setting. We examine the association between residents' perceived choice and satisfaction with care preferences being met using a mixed methods approach.

Design and Methods: Using the Preferences of Everyday Living Inventory, cognitive interviews were completed with 39 NH residents which resulted in a total of 600 item-level ratings of residents' perceived choice and satisfaction and corresponding open-ended comments on choice.

Results: Quantitative findings revealed a significant Pearson correlation between residents' perceived choice and satisfaction ($r = .47$, $p < .001$). Participants' responses of free choice were linked to significantly higher ratings of satisfaction compared to no choice and some choice. Responses of some choice were associated with significantly higher ratings of satisfaction than the no choice group. Open-ended comments provided greater depth in understanding regarding how residents perceive the level of choice in fulfilling their preferences.

Implications: This study establishes a positive association between NH residents' perceived choice and feelings of satisfaction with their care preferences being met. Offering choices that are deemed favorable or solicited from NH residents is a fundamental step toward increasing resident satisfaction with NH care.

Keywords: Nursing homes, Person-centered care, Care satisfaction, Choice

The nursing home (NH) culture change movement is a nation-wide effort in the United States to fundamentally transform NH care through efforts that prioritize quality-of-life and quality-of-care for residents (Rahman & Schnelle, 2008). The culture change movement advocates that care should be directed as much as possible by the resident, and that residents should be allowed to state their preferences and make choices about things that personally affect them (Koren, 2010). Encouraging older adults to direct their care contributes to a sense of autonomy and maintained independence. However, the customary notion of autonomy is challenged within NHs (Hickman, 2004) as regulations often enforce barriers to autonomy (e.g., safety; Cohen-Mansfield et al., 1995). Thus, NH residents may perceive that they have

limited or no choice in their care. It is evident that outside of the NH population, there is a fairly robust relationship between patient's choice and satisfaction with care (Amyx, Mowen, & Hamm, 2000). However, little inquiry has sought to understand NH residents' perceived choice in fulfilling their everyday care preferences and how their perceived level of choice is associated with satisfaction with care. The present study takes a mixed methods approach to examine the association between NH residents' perceived choice and their satisfaction with care preferences being met. We seek to understand, from the voice of NH residents, perceptions around choice in fulfilling everyday care preferences.

Choice in NHs

Self-determination theory purports that autonomy is a critical psychological need necessary for personal growth, health, and well-being across the life span (Deci & Ryan, 2000). Research demonstrates the importance of maintained autonomy for physical and psychological well-being and reductions in mortality (Infurna, Gerstorf, Ram, Schupp, & Wagner, 2011; Langer, 1983). In a NH setting, however, residents face particular challenges in making independent decisions that are consistent with their preferences and values. Resident choice is often a secondary consideration to safety regulations (Hofland, 1995). NH residents do not always have the ability to make decisions or act freely (Persson & Wästerfors, 2008). The inability to act upon preferred patterns of action can contribute to perceptions of limited control and reduction of this basic need of autonomy.

NH residents' negative interpretation of regulations and policies, not the regulations per say, lead to a loss of autonomy (Kane, 1995). Research has examined resident autonomy from the perspective of NH staff (e.g., Mullins & Hartley, 2002; Mullins, Moody, Colquitt, Mattiasson, & Andersson, 1998); yet, little inquiry has sought to understand how various dimensions of autonomy, such as perceived choice, are interpreted by NH residents. Consequently, a critical voice is missing from this dialogue. Thus, efforts towards understanding residents' perceived experience of choice in their daily care may yield important considerations for NH practice and policies that aim to promote choice and autonomy of residents. Increasing the choices of NH residents is associated with satisfaction in specific domains of everyday living. For example, Crogan, Dupler, Short, and Heaton (2013) found that increasing food choices for residents is associated with increased satisfaction with dining. This strategy attempts to satisfy the psychological need for autonomy and choice (e.g., offering residents the choice of three dinner options instead of one). However, more work is needed to understand how residents perceive and interpret their level of choice (e.g., even though the resident may choose between three dinner options that are offered, the resident may have no say into what those three meals are).

The Present Study

The present study utilizes qualitative and quantitative data to examine NH residents' perceived level of choice in fulfilling care preferences. We examine the association of NH residents' perceived choice with their satisfaction with care preferences being met. This inquiry allows us to determine the extent to which choice is valued by NH residents; this in turn lays the groundwork for further inquiry into how to best facilitate choice within a NH setting. We hypothesized that residents who perceived that they had greater choice in fulfilling care preferences would report higher levels of satisfaction with their care preferences being met. Moreover, we anticipated that qualitative inquiry would provide further depth to understanding residents' interpretation of the level of choice that they have and the associations of choice and satisfaction.

Methods

Sample

Our sample draws from a parent study: *Assessing Preferences for Everyday Living in the Nursing Home: Reliability and Concordance Issues* (Grant No: R21 NR011334-01 PI: Van Haitsma) which sought to develop and validate the Preferences for Everyday Living Inventory for NH residents (PELI-NH). The PELI-NH is a comprehensive instrument that examines the content, meaning, and importance of psychosocial preferences among NH residents (Van Haitsma et al., 2013, 2014). As a part of the measurement development process, 39 NH residents participated in cognitive interviews to validate items included in the PELI-NH. To understand how the PELI-NH items were interpreted by NH residents and to minimize interviewee burden, each individual was asked a subset of the 118 PELI items. This resulted in a total of 600 PELI-item-level ratings of choice and satisfaction with accompanying open-ended comments on choice. These item-level responses and open-ended remarks were utilized for the analysis in the present study.

A convenience sample was recruited from seven NHs in the greater Philadelphia region (see Table 1 for facility characteristics). Sites were recruited on a rolling basis and were selected from the greater Philadelphia region in an effort to meet targeted enrollment goals based on gender, ethnicity, and race. The participating facilities were all within a 30-mile radius of the parent organization to allow for multiple study-site contacts on a given day. Informed consent for participation was established according to institutional review board approved procedures and protocol. A facility contact person from each NH identified residents who were cognitively capable, English speaking, and had an anticipated length of stay of at least 1 week. The attending physician verified that residents had the capacity to consent for themselves and were medically stable. Social workers then approached residents to gain their assent to be contacted by the research team and informed

the residents' responsible parties about the study. Informed consent was obtained using interactive questioning. The research assistant administered the Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) to confirm that the resident was cognitively capable of completing the interview (MMSE score ≥ 22; see Table 2 for sample descriptive statistics).

Measures

An extended version of the original PELI (Van Haitsma et al., 2013) was used to ask participants about their preferences for everyday living. A total of 118 preference items (55 items from the original PELI and 63 items developed for use in a NH) were examined to gather an in-depth understanding of how NH residents' interpreted and answered the PELI-NH items (Curyto, Van Haitsma, & Towsley, 2015). PELI questions cover a variety of everyday topics from food and dining to personal care preferences that fall into five domains: social contact, growth activities, diversionary activities, self-dominion, and enlisting others in care. Cognitive interview questions were modified from the semistructured interview protocols of Housen et al. (2008) and Beck, Towsley, Berry, Brant, and Smith (2010; see Heid et al., 2014 for procedures). For each preference item asked, residents were probed with questions about the amount of choice they felt they had in regard to fulfilling the particular preference on a 3-point scale (1 [*no choice*], 2 [*some choice*], and 3 [*free choice*]). Pending their response, individuals were asked why they felt they had free choice, some choice, or no choice. Residents were then asked to indicate how satisfied they were in regard to the fulfillment of their preference on a scale of 1 (*not satisfied at all*) to 3 (*mostly or completely satisfied*). Open-ended responses made during cognitive interviews regarding choice were transcribed verbatim.

Data Analysis

Given that each resident responded to a subset of PELI items, quantitative data were structured such that each PELI item was a line of data (N = 600 items; i.e., not analyzed by person). Pearson product-moment correlations were conducted using IBM SPSS Statistics Version 22.0 to test the hypothesis that greater perceived choice was associated with higher levels of satisfaction for NH residents' preferences for everyday living. A one-way analysis of variance (ANOVA) was computed to examine residents' satisfaction with preferences being met by level of perceived choice associated with their preferences. Open-ended comments were simultaneously grouped by level of choice (i.e., no choice, some choice, free choice). Using content analysis strategies (Graneheim & Lundman, 2004), comments were read for common themes to elucidate how residents conceptualized their experiences of choice within the NH.

Results

Descriptive statistics of key variables are reported in Table 2. When examining correlations among variables,

Table 2. Descriptive Statistics

Sample characteristics[a]	*M* (*SD*)	Percent (*n*)
Age	78.6 (10.4)	—
Gender (male)	—	25.6 (10)
Education (completed high school)	—	85.7 (30)
Ethnicity		
Not Hispanic or Latino	—	100.0 (39)
Hispanic or Latino	—	0.0 (0)
Race		
Caucasian	—	76.9 (30)
African American	—	23.1 (9)
Marital status		
Married	—	8.3 (3)
Divorced/separated	—	5.6 (2)
Widowed	—	63.9 (23)
Never married	—	22.2 (8)
MMSE total score (0–30)	26.4 (1.6)	—
Length of stay (days)	646.1 (598.0)	—
Key variables[b]	*M* (*SD*)	
Choice (1–3)[c]	2.50 (0.71)	
Satisfaction (1–3)[d]	2.67 (0.60)	

Notes: MMSE = Mini-Mental State Examination.
[a]N = 39 participants. [b]N = 600 item responses; i.e., analyzed by PELI item. [c]1 = no choice; 2 = some choice; 3 = free choice. [d]1 = not satisfied at all; 3 = mostly or completely satisfied.

Table 1. Facility Characteristics

Facility number	% of sample (*n*)	Number of beds	Star rating	Ownership
1	33.3 (13)	324	5	Non profit–Corporation
2	12.8 (5)	180	3	For profit–Partnership
3	12.8 (5)	180	3	Non profit–Corporation
4	12.8 (5)	226	4	Non profit–Other
5	10.3 (4)	296	5	Non profit–Corporation
6	10.3 (4)	170	5	Non profit–Corporation
7	7.7 (3)	120	3	Non profit–Corporation

Note: N = 39 residents from 7 facilities in the greater Philadelphia Region. Data are pulled from Data.Medicare.gov.

we found that greater levels of choice were positively associated with higher satisfaction (r = .47, p < .001). When examining resident satisfaction by level of choice with ANOVA, we found that each group of responses (by level of choice) significantly differed from each other on the amount of satisfaction reported (see Table 3). Participants' responses of free choice were linked to significantly higher ratings of satisfaction compared to no choice and some choice. Responses of some choice were associated with significantly higher ratings of satisfaction than the no choice group. Open-ended comments provided greater depth in understanding regarding how residents perceive no choice, some choice, or free choice in fulfilling their preferences.

Themes of No Choice

Items rated as having no choice were associated with the lowest level of satisfaction (M = 2.01, SD = 0.85; Table 3). Residents' comments provided key insight into why residents perceived no choice associated with specific preference items. Two overarching themes presented regarding residents' interpretation of why they had no choice in fulfilling their preferences: (a) A sense of predetermination and (b) Facility policies.

Predetermination

Participants indicated that they perceived no choice as a result of predetermined routines, activities, and other aspects of care. There was a sense that various aspects of care were predetermined for the resident without their opinion or choice. One resident explained that although she has the option to exercise, she has no choice in what exercises she could do: "In here they have a routine, you have to do each phase as they tell you. When I go in and tell them, 'I'm here for my legs' I say 'I'm not here for this {pointing to arms}, I'm not lifting weights for this' they have a routine. Before I come, they say, 'this is what we are going to do'." Predetermined activities appeared to diminish residents' perceived choice and subsequent satisfaction with these aspects of care. Similar comments indicated that residents' opinions had not been asked, integrated, or incorporated into many aspects of care, which eliminated their perceived choice. One resident explained that he had no say in choosing who provides medical care: "They make the decision before they consult you. Decisions about my illness, do you want this operation, don't you want this operation. No feedback, they just do it." Another resident dictated that she had no say in choosing a medical care professional: "Because I don't have no choice really. It's all automatic. They set it all up, the social workers."

Facility Policy

Residents cited facility policies, schedule, and regulations as critical factors impacting their perception of no choice. Residents indicated a lack of choice and lack of perceived control over fundamental aspects of care such as bathing: "You don't have any choice. They call the shots, you are supposed to get it twice a week, a shower." This perception of no choice was also mirrored in other activities such as being involved in cooking: "Because we have no involvement other than to watch or to eat after it is completely finished. Residents are not allowed to prepare and we're not allowed to cook and not allowed to be around the oven and not allowed to cut because they don't want anything to happen to anybody." Another example comes from a resident who indicated that the facility policy required him to have a roommate: "Well I don't have a choice in having somebody share the room with me. I don't have that choice." These responses specify that perceiving no choice is associated with strict policies, schedule, or regulations that are put in place by the facility and upheld by staff. Overall, residents who interpreted that they had no choice in various matters of care described policies characterized by limited autonomy and perceived lack of integration into various components of care.

Themes of Some Choice

A moderate level of satisfaction was ascribed to preference items associated with some choice, (M = 2.48, SD = 0.58;

Table 3. ANOVA Results for Satisfaction by Level of Choice

Variable	Mean	*SD*	*n*	
No choice	2.01	0.85	62	
Some choice	2.48	0.58	138	
Free choice	2.86	0.42	344	
Source	*SS*	*df*	*MS*	*F*
Between groups	44.06	2	22.03	78.41***
Within groups	152.03	541	0.281	
Comparison	Mean difference	*SE* of difference	Bonferroni adjusted 95% CI	
No choice vs. some choice	−0.469**	0.081	−0.664, −0.2747	
No choice vs. free choice	−0.847**	0.073	−1.02, −0.6716	
Some choice vs. free choice	−0.377**	0.053	−0.506, −0.249	

Notes: N = 600 items; i.e., analyzed by PELI item. ANOVA = analysis of variance; CI = confidence interval; MS = mean square; SS = sum of squares.
***p < .001; p values are adjusted using the Bonferroni method, such that results are interpreted if **p < .017.

Table 3). Open-ended responses made by residents detailed a conflicted sense of choice. Common reasons for residents feeling they only had some choice in preference fulfillment were: (a) A sense of seeing their preferences as restricted and (b) Difficulty with fulfilling preferences.

Restricted Preferences

Residents perceived that although they had choices available to them, their choices were in fact constrained; this view contributed to their perception of having only some choice with regard to specific preferences. For example, when explaining the level of choice ascribed to preferences for choosing what to eat, one resident explained: "I would say some choice. They ask you. You have an option of two different meals. Which one do you prefer." Another example comes from a resident who explains her interpretation of choosing whether or not to lock up her valuables, "Because whenever you are putting something away you really do not know if it's going to be there when you go back for it. Yes it locks, but 3 or 4 people have the same key. That's why I don't keep anything that's worth anything here." Although procedures in place seemed to offer opportunities and choices, residents' did not perceive their ability to act on these choices as unrestricted.

Difficulty Fulfilling Preferences

In other circumstances, residents' perceived that they had some choice but this choice was limited by the difficulty they experienced in fulfilling a specific preference. One participant described her ability to speak out against who is involved in care, but that it was met with resistance and lack of fulfillment: "At one time [I] requested [that staff] get another aide to take care of me and she said emphatically that no that wasn't possible. Not those words, but words meaning that. So you know what goes through your head, I won't ask her anymore I will go above her if I have to. But you do know that brings on a lot of problems for yourself." Other residents articulated that their own physical impairments contributed to the difficulty associated with engaging in cultural activities outside of the NH: "Well if I wasn't here or wasn't handicapped I would do what I want to do. I used to drive but even now that's a hindrance as it could be because the [bus] runs. You get a pass and it picks you up." One resident explained the difficulty associated with choosing to go to entertainment events lessened her perceived choice: "Because it depends on where it is and how difficult it would be for me to get there. Like somebody would have to volunteer to get me in a car and bring me back safely." Thus, perceived choice seems to be embedded within the difficulty and effort associated with honoring various preferences.

Themes of Free Choice

For preference items associated with free choice, corresponding satisfaction was rated very high by residents (M = 2.86, SD = 0.42; Table 3). In regard to how or why residents felt they had free choice, they referenced: (a) Relationships with staff and (b) Open communication.

Relationships With Staff

One resident attributed the experience of free choice to having the staff show him respect: "I had one incident where someone spoke to me in a matter that was unacceptable and I went to their superior and told them about it." Residents similarly spoke about how staff interact with them and how these exchanges contribute to perceptions of free choice. A resident explained that based on the actions of staff, he perceived free choice in the amount of privacy he has: "There are always people coming, but they knock first. I was trying to think about people walking in and out, but they always have something to do. I get [a catheter] twice a day, but they always knock. They don't just march in. I could refuse these things too. It's my privilege." In the same regard, another resident described how interactions with dining staff contribute to feeling free choice: "See the chef and I are on a first name basis. And he has listened to me about suggestions about new foods." Similarly, another resident indicated that staff accommodated her preferred bathing method, which she perceived as providing her free choice: "Because every time I've said I've wanted a shower instead of a bath they said okay. I haven't had a negative reply so I figure my free choice."

Open Communication

Residents suggested that free choice was associated with keeping open communication with staff about their preference. This was articulated by residents when asked about the level of choice they felt associated with staff knowing their bathroom needs: "Because I'm the only one that can give that information and no one stops me from giving it" and "Well I am very vocal. I can express what I want to say without being nasty, and I do." These comments imply that feelings of free choice are derived from an individual choosing whether or not to communicate necessary information that would facilitate their care preferences. This communication, however, appears to be relevant to residents without cognitive impairment. As one resident stated: "Cause I won't put up with anything else. I will tell you that many of the people here, through no fault of their own, are what I consider to be the walking dead. They have no choice. They do what they are told. They don't know the difference." Thus, it appears that for residents who are cognitively capable, the manner in which staff respond and interact and communicate with residents appears to facilitate perceptions of free choice.

Discussion

Overall, findings suggest that a sound understanding of NH residents' perceptions of choice may be one mechanism by which to maintain residents' sense of autonomy and

improve overall satisfaction with care. The contributions of this study are twofold. First, this study establishes a positive association between NH residents' perceived choice and feelings of satisfaction with their care preferences being met. Outcomes suggest that satisfaction of NH residents, a critical indicator of success in the NH culture change movement, is associated with perceived level of choice. Moreover, groupings of choice are significantly different on levels of satisfaction. Findings are congruent with previous work that suggests patients tend to be more satisfied with their care when they favorably perceive access to health providers, have the opportunity to choose their personal physician (Schmittdiel, Selby, Quesenberry, & Grumbach, 1997), and choose their hospital (Nguyen Thi, Briançon, Empereur, & Guillemin, 2002). This work contributes to the literature concerning the satisfaction of NH residents as a critical aspect of providing quality care (e.g., Sikorska-Simmons, 2006; Simmons & Schnelle, 1999). To the same effect, our study supports the notion that resident choice is a priority for NH residents (White et al., 2012) and suggests that increasing perceptions of choice may be a valuable mechanism by which to increase resident satisfaction.

A second contribution of this manuscript focuses on residents' elucidation of their perceived level of choice. Residents who perceived "no choice" and "some choice" revealed that the fundamental availability of options does not equate to residents' perceiving greater choice, rather, options are embedded within environmental circumstances that contribute to residents' perceived ability to choose from opportunities that they find favorable. Residents' comments support the notion that environmental factors may inhibit residents' capability in making decisions and acting autonomously (i.e., facility policies, social interactions; Wulff et al., 2013). Consistent with Kane (1995), our results purport that residents' interpretation of the options available to them and whether their opinions are solicited, may in fact lead to a loss of autonomy. Specifically, not only residents' ability to choose, but the ability to choose from satisfactory options is an important aspect of addressing restricted perceptions of choice. These findings support previous research suggesting that undesirable alternatives are associated with lower care satisfaction among patients (Amyx et al., 2000). Thus, a fundamental step toward increasing residents' perceived level of choice may be to offer choices that are deemed favorable or solicited from residents.

Another theme that emerged in regard to "some choice" was effort and strain associated with the fulfillment of certain preferences. The difficulty that an individual associates with a specific choice appears to diminish their perceptions of choice. Many other residents also articulated awareness that while they had choices available to them, these options were not easily accessible or manageable and therefore not interpreted as free choice. These findings suggest that NH staff should take into consideration the difficulty and effort that residents associate with various activities available to them. Such difficulties may manifest by way of sensory or physical impairment (Heid et al., 2014) and require specific accommodations in order to ensure that residents' feel they have a choice in various activities and other aspects of care.

Resident responses also provided critical insight into why preferences are associated with free choice and high ratings of satisfaction. Residents articulated a level of agency associated with free choice which largely entailed openly communicating with staff and actively dictating their preferences for specific activities (e.g., requesting a shower instead of a bath). These findings suggest that it is critical for NHs to cultivate an environment wherein residents feel comfortable voicing their opinions and that staff are trained to adequately address and acknowledge the requests of residents. Further, resident comments indicated that interactions with any staff member (e.g., kitchen staff) can contribute to resident perceptions of choice, not just direct care aids. Such findings are congruent with earlier work by Kruzich, Clinton, and Kelber (1992) which argues that NH residents perceptions of NH personnel play a key role in resident satisfaction.

The impetus to actively advocate for various aspects of care is most applicable among residents who are cognitively capable. Though some work has examined autonomy among NH residents with diminished cognitive capacity (Wulff et al., 2013), more work is needed to understand how perceptions of choice differ among residents with and without cognitive impairment. We found that when residents articulated their preferences, staff response was essential to ensuring that the resident felt a sense of free choice. These findings indicate that staff responses to resident inquiry may help to facilitate favorable perceptions of choice. Findings also support the importance of asking residents what kind of decisions they want to make for themselves (Westerhof, Riksen-Walraven, Gerritsen, Custers, & Kuin , 2012). This is a critical area for intervention and training of staff to help residents make decisions in a manner that promotes autonomy.

Limitations and Directions for Future Research

These findings should be interpreted within the context of several limitations. Foremost, we utilized a convenience sample that is limited in size and diversity such that generalizations to all NH residents cannot be made. Although data were gathered from seven different NHs, we did not gather information about whether or not these NHs were engaged in activities related to the culture change movement. Because NH culture change is implemented differentially (Grabowski, Elliot, Leitzell, Cohen, & Zimmerman, 2014), further exploration of choice and satisfaction among a larger more diverse sample of NHs who do and do not engage in culture change activities is critical to future work on this topic. Moreover, participants had fairly high cognitive capacity; results are not applicable to cognitively impaired NH residents. Future research should examine

perceptions of choice across various stages of cognitive impairment in order to understand how perceived choice may differ as cognitive function declines. The cross-sectional nature of this study prevents the examination of choice and satisfaction over time. It is possible that perceived choice may fluctuate. The nature of this variation has not been examined and it is unknown what factors may contribute to changes in perceptions of choice. In addition, each resident responded to multiple preference items, though a different selection to avoid participant burden. As a result, findings could be affected by individual-level factors (i.e., a person responding more positive overall) or facility-based characteristics (i.e., all residents from a facility responding more positive). Additional work should explore the impact of such factors on the perception of choice and/or satisfaction.

Despite such limitations, this study suggests that NH residents' perceptions of choice are a vital consideration for understanding satisfaction with everyday care. While resident choice must be balanced within the workings of a long-term care environment, this study provides valuable insight into how residents perceive the amount of choice that they have in fulfilling their care preferences and highlights ways in which NH administrators and staff can increase perceptions of choice. These findings advance our understanding of how to promote the autonomy of NH residents and uphold the tenets of the NH culture change movement.

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References

Amyx, D., Mowen, J. C., & Hamm, R. (2000). Patient satisfaction: A matter of choice. *Journal of Services Marketing*, **14**, 557–572. doi:10.1108/08876040010352727

Beck, S. L., Towsley, G. L., Berry, P. H., Brant, J. M., & Smith, E. M. (2010). Measuring the quality of care related to pain management: A multiple-method approach to instrument development. *Nursing Research*, **59**, 85–92. doi:10.1097/NNR.0b013e3181d1a732

Cohen-Mansfield, J., Werner, P., Weinfield, M., Braun, J., Kraft, G., Gerber, B., & Willens, S. (1995). Autonomy for nursing home residents: The role of regulations. *Behavioral Sciences & the Law*, **13**, 415–423. doi:10.1002/bsl.2370130309

Crogan, N. L., Dupler, A. E., Short, R., & Heaton, G. (2013). Food choice can improve nursing home resident meal service satisfaction and nutritional status. *Journal of Gerontological Nursing*, **39**, 38–45. doi:10.3928/00989134-20130313-02

Curyto, K., Van Haitsma, K. S., & Towsley, G. L. (2015). Cognitive interviewing: Revising the Preferences for Everyday Living Inventory for use in the nursing home. *Research in Gerontological Nursing*. doi:10.3928/19404921-20150522-04

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self determination of behavior. *Psychological Inquiry*, **11**, 227–268. doi:10.1207/S15327965PLI1104_01

Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). Mini-mental state: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, **12**, 189–198. doi:10.1016/0022-3956(75)90026-6

Grabowski, D. C., Elliot, A., Leitzell, B., Cohen, L. W., & Zimmerman, S. (2014). Who are the innovators? Nursing homes implementing culture change. *The Gerontologist*, **54**(Suppl. 1), S65–S75. doi:10.1093/geront/gnt144

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, **24**, 105–112. doi:10.1016/j.nedt.2003.10.001

Heid, A. R., Eshraghi, K., Duntzee, C., Abbott, K., Curyto, K., & Van Haitsma, K. (2014). "It depends": Reasons why nursing home residents change their minds about care preferences. The Gerontologist. Advanced online publication. doi:10.1093/geront/gnu040

Hickman, S. E. (2004). Honoring resident autonomy in long-term care: Special considerations. *Journal of Psychosocial Nursing and Mental Health Services*, **42**, 12–16. doi:10.3928/02793695-20040301-11

Hofland, B. (1995). Resident autonomy in long-term care: Paradoxes and challenges. In L. M. Gamroth, J. Semradek, & E. M. Tornquist (Eds.), *Enhancing autonomy in long-term care: Concepts and strategies* (pp. 15–33). New York: Springer.

Housen, P., Shannon, G., Simon, B., Edelen, M. O., Cadogan, M., Sohn, L., … Saliba, D. (2008). What the resident meant to say: Use of cognitive interviewing techniques to develop questionnaires for nursing home residents. *The Gerontologist*, **48**, 158–169. doi:10.1093/geront/48.2.158

Infurna, F. J., Gerstorf, D., Ram, N., Schupp, J., & Wagner, G. G. (2011). Long-term antecedents and outcomes of perceived control. *Psychology and Aging*, **26**, 559–575. doi:10.1037/a0022890

Kane, R. A. (1995). Ethical themes in long-term care. In P. R. Katz, R. L. Kane, & M.-D. Mezey (Eds.), *Quality care in geriatric settings: Focus on ethical issues* (pp. 130–148). New York: Springer.

Koren, M. J. (2010). Person-centered care for nursing home residents: The culture-change movement. *Health Affairs*, **29**, 312–317. doi:10.1377/hlthaff.2009.0966

Kruzich, J. M., Clinton, J. F., & Kelber, S. T. (1992). Personal and environmental influences on nursing home satisfaction. *The Gerontologist*, **32**, 342–350. doi:10.1093/geront/32.3.342

Langer, E. J. (1983). *The psychology of control*. Beverly Hills, CA: Sage Publications Inc.

Mullins, L. C., & Hartley, T. M. (2002). Residents' autonomy: Nursing home personnel's perceptions. *Journal of Gerontological Nursing*, **28**, 35. doi:10.3928/0098-9134-20020201-0

Mullins, L. C., Moody, L., Colquitt, R. L., Mattiasson, A., & Andersson, L. (1998). An examination of nursing home personnel's perceptions of residents' autonomy. *The Journal of Applied Gerontology*, **17**, 442–461. doi:10.1177/073346489801700403

Nguyen Thi, P. L., Briançon, S., Empereur, F., & Guillemin, F. (2002). Factors determining inpatient satisfaction with

care. *Social Science & Medicine*, **54**, 493–504. doi:10.1016/S0277-9536(01)00045-4

Persson, T., & Wästerfors, D. (2008). Such trivial matters: How staff accounts for restrictions of residents' influence in nursing homes. *Journal of Aging Studies*, **23**, 1–11. doi:10.1016/j.jaging.2007.09.005

Rahman, A. N., & Schnelle, J. F. (2008). The nursing home culture-change movement: Recent past, present, and future directions for research. *The Gerontologist*, **48**, 142–148. doi:10.1093/geront/48.2.142

Schmittdiel, J., Selby, J. V., Quesenberry, C. P., & Grumbach, K. (1997). Choice of a personal physician and patient satisfaction in a health maintenance organization. *Journal of the American Medical Association*, **278**, 1596–1599. doi:10.1001/jama.1997.03550190060045

Sikorska-Simmons, E. (2006). Linking resident satisfaction to staff perceptions of the work environment in assisted living: A multilevel analysis. *The Gerontologist*, **46**, 590–598. doi:10.1093/geront/46.5.590

Simmons, S. F., & Schnelle, J. F. (1999). Strategies to measure nursing home residents' satisfaction and preferences related to incontinence and mobility care: Implications for evaluating intervention effects. *The Gerontologist*, **39**, 345–355. doi:10.1093/geront/39.3.345

Van Haitsma, K., Crespy, S., Humes, S., Elliot, A., Mihelic, A., Scott, C., … Abbott, K. (2014). New toolkit to measure quality of person-centered care: Development and pilot evaluation with nursing home communities. *Journal of the American Medical Directors Association*, **15**, 671–680. doi:10.1016/j.jamda.2014.02.004

Van Haitsma, K., Curyto, K., Spector, A., Towsley, G., Kleban, M., Carpenter, B., … Koren, M. J. (2013). The Preferences for Everyday Living Inventory: Scale development and description of psychosocial preferences responses in community-dwelling elders. *The Gerontologist*, **53**, 582–595. doi:10.1093/geront/gns102

Westerhof, G. J., Riksen-Walraven, J. M. A., Gerritsen, D. L., Custers, A. F. J., & Kuin, Y. (2012). Relatedness, autonomy, and competence in the caring relationship: The perspective of nursing home residents. *Journal of Aging Studies*, **26**, 319–326. doi:10.1016/j.jaging.2012.02.005

White, H. K., Corazzini, K., Twersky, J., Buhr, G., McConnell, E., Weiner, M., & Colón-Emeric, C. S. (2012). Prioritizing culture change in nursing homes: Perspectives of residents, staff, and family members. *Journal of the American Geriatrics Society*, **60**, 525–531. doi:10.1111/j.1532-5415.2011.03840.x

Wulff, I., Kölzsch, M., Kalinowski, S., Kopke, K., Fischer, T., Kreutz, R., & Dräger, D. (2013). Perceived enactment of autonomy of nursing home residents: A German cross-sectional study. *Nursing & Health Sciences*, **15**, 186–193. doi:10.1111/nhs.12016