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The National Investment Center for Seniors Housing & Care (NIC) is a nonprofit 501(c)(3) organization whose mission is to support access and choice for America’s seniors by providing data, analytics, and connections that bring together investors and providers in independent living, assisted living, memory care, skilled nursing and post-acute care. Since 1991, NIC has facilitated informed investment decisions and leadership development in seniors housing and care. Through its industry-leading annual conferences, NIC MAP® Data Service, research, analytics, and sector outreach, NIC serves as an indispensable resource source for owners, operators, developers, capital providers, researchers, academics, public policy analysts, and others interested in meeting the housing and care needs of America’s seniors. NIC has proudly sponsored the Seniors Housing & Care Journal, a peer-reviewed journal for applied research in the seniors housing and care field, since 1993.

For more information, visit www.nic.org or call 410-267-0504.

Mather LifeWays Institute on Aging

Staffed by nationally recognized researchers, Mather LifeWays Institute on Aging is an award-winning resource for research and information about wellness, aging, trends in senior living, and successful aging service innovations. Through conducting and disseminating applied research, Mather LifeWays Institute on Aging is committed to advancing the field of aging services. The Institute shares its cutting-edge research in order to support senior living communities and others that serve older adults, in areas including effective approaches to brain health, ways to enhance resilience, and successful employee wellness programs. The Institute is part of Mather LifeWays, a unique, non-denominational not-for-profit organization based in Evanston, Illinois, that was founded in 1941. Mather LifeWays Institute on Aging collaborates with NIC to produce the Seniors Housing & Care Journal. To learn more about Mather LifeWays Institute on Aging visit matherlifewaysinstituteonaging.com.

A Tribute to Tony Mullen, The Visionary of the Seniors Housing & Care Journal

Tony Mullen, the seniors housing and care sector leader who was the visionary behind establishing the peer-reviewed Seniors Housing & Care Journal, died unexpectedly this year on March 10th. He was 61.

It can’t be overstated how special Tony was to so many in the industry. Tony made an incredible impact on the industry, including being one of the co-founders of NIC. While in a leadership role at NIC, he was instrumental in laying the foundation for the NIC MAP® Data Service, and he was passionate about the transformative power of data, analytics, and solid research. These efforts subsequently attracted more capital from investors to finance new development to house the growing ranks of the nation’s elders.

An entrepreneur at heart, Tony launched several senior living companies and held a number of executive positions in the industry. He also ran the Advanced Sales & Marketing Summit—a forum to improve the sales and marketing functions at senior living properties—which marked its 20th anniversary in 2016.

Tony’s sudden death was a shock to all who knew him and understood the invaluable contributions he made to the seniors housing industry. NIC and the entire seniors housing industry owe Tony an abundance of gratitude for his contributions.

All who had the privilege of working alongside Tony lost a dear friend as well as an esteemed colleague—a rare individual who led and inspired by example in his professional and personal life. An man of immense integrity, Tony was always willing and eager to help people with new ideas. We are all fortunate that Tony devoted so much of his time, talents, and passion to enhancing and growing the senior living sector. Thank you, Tony, for a job well done and a life well lived.
Introduction – Seniors Housing & Care Journal 2018

The 2018 Seniors Housing & Care Journal offers scholarly articles with a strong focus on applied research and best practices in the fields of seniors housing and long-term care. The journal continues to feature topics most relevant for seniors housing providers and investors, with emphases on asset transparency, leadership development and talent selection, availability and affordability of seniors housing, and quality outcomes.

As in the past, the editors selected one outstanding research article for special recognition. Partners in Care in Assisted Living: Fostering Cooperative Communication Between Families and Staff, authored by Pillemer, Schultz, Cope, Meador, and Henderson, describes an intervention to improve communication between families of assisted living residents and staff. The program, Partners in Care in Assisted Living (PICAL), provides training in communication, including active listening skills, types of feedback, and guidelines for handling disagreements. A randomized controlled trial showed that for staff, frequency of conflicts with family members, and scores on burnout and depression scales declined among those in the intervention group.

A second article, Employee Total Motivation (ToMo): A Key Performance Indicator of Customer Satisfaction, by Paris, Howell, and Smith, was awarded special recognition. The authors examine the relationship between employee motivation, employee satisfaction, and resident satisfaction, finding a positive correlation between all three. Moreover, employees with the highest total motivation scores are more likely to recommend their community and are more likely to be satisfied with their working conditions and jobs overall. The study further suggests that communities with the most motivated employees have the most satisfied residents. These findings underscore how important it is for owners and operators to understand and encourage factors motivating staff.

Additional articles give readers equally important concepts and actionable information for the seniors housing industry. Konis and Schneider, in their article The Importance of Daylight in Dementia Care Communities: A Call to Action, offer seniors housing operators and developers a set of practical lessons and recommendations to ensure adequate access to daylight, which promotes resident well-being. In Relationships Between Residential Care Community Characteristics and Overnight Hospital Stays and Readmissions: Results From the National Study of Long-Term Care Providers, Caffrey, Harris-Kojetin, Rome, and Schwartz address the critical topic of hospitalizations and readmissions, and reveal factors associated with their occurrence. The article Influence of Senior Living Employees’ Perceptions of Aging on Engagement and Quality of Resident Interactions, by Smith, examines the connection between senior living employees’ perceptions of aging and their attitudes and beliefs about their work. In their article, Defining and Promoting Quality of Life at a Continuing Care Retirement Community: A Case Study, Weinstock and Bond report results from an in-depth case study of residents’ and administrators’ perceptions at one community, revealing three core concepts and a number of strategies key to promoting quality of life. Lastly, in Online Marketing Practices of Assisted Living Communities in Oregon, Dys, Carder, and Elliot offer marketing suggestions for assisted living professionals based on their analysis of websites representing 261 communities.

In addition to the research articles, five commentaries offer insights into important issues in our industry. In A Framework for Expanding and Enhancing University-Based Health Administration and Aging Services Programs Across the United States, Olson identifies seven themes that those in the senior care industry can understand to better attract qualified leaders to the field. Dawson addresses another critical issue in seniors care with the article, Impact on Care of an Increasing Population Living With Alzheimer's Disease and Dementia: The 21st Century Challenge.

In it, the author identifies several system-wide issues and suggests options to better serve individuals with ADRD and the providers who care. In The Need for Investigations Training for Nursing Home Administrators and Staff Into Complaints of Abuse, Neglect, and Misappropriation, Hazy and Bradley make a case for incorporating abuse,
neglect, and misappropriation (ANM) training for nursing home administrators and staff and offer recommendations for training components. The article, *Building Resident Engagement Through Social Art Programs*, by Harmon, identifies best practices for creative arts program for older adults along with case studies illustrating how barriers may be addressed. Finally, Frank addresses the complex issue of privacy rights relative to increasing technology use by older adults in the article, *Dimensions of Privacy and Aging in Place With Smart Home Technology: Legal Considerations for the Seniors Housing Industry*.

We would like to recognize the Journal’s Editorial Board members, whose efforts and time spent reviewing submissions and providing feedback ensure the quality and relevance of the Journal. In addition, we appreciate the vital contributions of Associate Managing Editors Jennifer Smith and Dugan O’Connor, who have guided the process of review and publication.

The Journal continues to publish research that contributes to the senior living field and has direct application for day-to-day operations. If you would like to submit an article for publication in the 2019 edition, please direct your e-mail to Associate Managing Editor Dugan O’Connor, doconnor@matherlifeways.com.

Sincerely,

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ABSTRACT

The Problem: Although forging partnerships between families and staff in assisted living (AL) is desirable, few programs exist that promote such positive relationships. Staff members and relatives of residents can sometimes experience communication problems and interpersonal conflict with one another.

The Resolution: Partners in Care in Assisted Living (PICAL) aimed to improve cooperation and communication in AL communities. Training sessions on communication and conflict-resolution techniques were conducted with families and staff, and the program was tested using a rigorous evaluation design. The research confirmed that family–staff relationships are sometimes challenging in AL communities and that an intervention can improve these relationships.

Tips for Success: AL communities can enhance the experiences of both families and staff by providing training in communication skills and conflict resolution, which is likely to lead to improved care for residents.

Keywords: Family–staff relationships, assisted living, long-term care, intervention programs
BACKGROUND

The move to a senior living community is typically a family affair. When an older person is physically frail or cognitively impaired, family members are often involved in providing care before relocation and in selecting the location where the relative will live. There is a popular impression that caregivers’ responsibilities and feelings of burden end after such a residential transition. However, considerable research shows ongoing caregiver engagement after a move into a supported living setting, such as an AL community or a nursing home (Gaugler & Kane, 2007). Further, studies have found that stress among family members often continues after the transition (Bramble, Moyle, & Shum, 2011). One potentially stressful experience for caregivers is interacting with AL staff around care issues. Conversely, problematic interactions with family members are also aversive to staff and can lead to burnout and an increased likelihood of leaving the job (Pillemer et al., 2003).

Clear and positive communication between family members and staff can ameliorate these problems and lead to better quality of care for residents. Family members have a long (indeed, sometimes lifelong) relationship with the resident. They are therefore “experts” on the relative’s care preferences and priorities for quality of life. In addition, they are greatly needed in efforts to personalize care, as families can inform and remind staff about their relative’s life history (Ben Natan, 2009), helping them to view the resident as a whole person rather than simply a recipient of care. Better communication with staff helps maintain family involvement, which is important for residents’ well-being.

Improving the experience of family members is likely to benefit residents. In long-term care settings, research shows that greater family involvement promotes a range of positive resident outcomes, including lower hospitalization and infection rates, increased participation in activities, and improved quality of life (Cohen et al., 2014; Durkin, Shotwell, & Simmons, 2014). Creating an environment in which family members communicate openly with staff is particularly critical when the resident is cognitively impaired and, thus, less able to provide information or express desires about care (Lethin, Hallberg, Karlsson, Staffan, & Janlöv, 2015).

In this article, we describe a novel intervention designed to improve communication and cooperation among families and staff, with the goal of making them better “partners in care” for AL residents. Grounded in research on the experience of families and staff in long-term care, as well as evidence-based approaches to improving communication, Partners in Care in Assisted Living (PICAL) was implemented in AL communities in eight states. Using a randomized, controlled design, we compared participants in PICAL with a control group that did not participate in the training. We present data describing staff and family views of their relationships, and we discuss the results of the evaluation of PICAL and the implications for practice in AL communities.

Problems in Family–Staff Communication

Sociologists who study how family members interact with community institutions of all kinds have identified a central problem, which they frame as fundamental differences between primary and secondary groups. Primary groups are small, socially intimate, and involve relatively long periods of interaction. Emotional relationships are usually deep and group members are viewed as unique individuals. Examples include the family, a closely knit neighborhood, and a local faith-based community. Secondary groups, in contrast, are large and involve relatively superficial relationships; interaction among group members also is for shorter periods of time. Secondary groups focus on bureaucracy and rules and are more formal and impersonal. Schools, corporations, and health care facilities are examples of secondary groups.

The sociologist Eugene Litwak (1985) identified long-term care as a classic case in which a secondary institution is designed to assume tasks usually assigned to a primary group. Conflicts almost invariably emerge in situations in which secondary groups take over responsibilities typically associated with families, such as intimate care and emotional comfort and support. Thus, rather than simply being the fault of individuals, many of the problems families and staff experience with one another are related to the fundamental structure of caregiving institutions. Family members must relinquish care to a large organization that cannot, even in the best of circumstances, provide what is offered by a family.
Several types of problems can arise from this situation. First, families and staff may have different views regarding the division of tasks for the resident. Families sometimes believe that staff members do not recognize their expert knowledge about the resident and therefore feel undervalued or ignored. Staff members can see themselves as responsible for technical aspects of care and view family members as responsible for emotional support, whereas families may resist such a division of labor. There is evidence that staff feel that family members should assume more responsibility in providing supportive care than family members feel they should (Ben Natan, 2009). In addition, even though they are no longer primary caregivers, some family members feel compelled to monitor the quality of service delivery, including reminding staff to do things or suggesting how to care for the relative. Thus, boundaries between “what staff do” and “what families do” are not always distinct and can cause confusion and conflict (Bramble, Moyle, & Shum, 2011).

Second, the long-term care environment involves certain characteristics that act as barriers to good communication. As noted, many residents have some degree of cognitive impairment and may not be able to provide coherent accounts of their experience to relatives. Families then become dependent on staff for details and assurance about the relative's life in the community. However, staff members have limited time for communication because of the well-documented busy and stressful nature of their jobs. Pressure on staff to complete tasks can lead to hasty communication attempts and misunderstandings that might not have occurred were more time available. Family members sometimes are hesitant to make suggestions regarding care out of fear that they will be seen as “complainers” and that staff resentment might lead to negative repercussions for the resident (Robison et al., 2007). A persistent problem identified in the literature is the need for greater empathy between staff and families (Kemp et al., 2009).

A third feature of the elder care environment is the need for cross-cultural communication. In many locations throughout the country, AL has become a multicultural environment in which staff and family members typically come from different socioeconomic backgrounds. In urban areas, in particular, a high proportion of staff members are racial and ethnic minorities and, increasingly, recent immigrants. In all regions, staff are much more likely to come from low-income backgrounds than are AL residents and their families. Experts in the field agree that attempting communication across racial, ethnic, and class lines is difficult (Kataoka-Yihiro, McFarlane, Kojjane, & Li, 2017; Wagner et al., 2017). In particular, divergent beliefs and values regarding health, illness, and care practices are related to conflict, communication difficulties, and misunderstandings (Bourgeault, Atanackovic, Rashid, & Parpia, 2010).

Clearly, structural, cultural, and environmental factors in long-term care can lead to intergroup difficulties. Although forging partnerships between families and staff is desirable to improve residents’ quality of life, no programs, to our knowledge, exist that promote such cooperation and communication in AL. Further, AL community policies and practices sometimes unwittingly deter staff and families from working well together. Because of the potential benefits to families, staff, and residents, a need exists for development and rigorous evaluation of programs to build positive caregiving partnerships in AL.

THE PARTNERS IN CARE IN ASSISTED LIVING PROGRAM

We designed PICAL to address these problems by enhancing communication skills, fostering empathy between families and staff, and engaging individuals in discussions about how their AL community could help break down barriers between the two groups. The program is based on extensive evidence that communication training in health care settings has a positive impact on patients (Epner & Baile, 2014; Levinson, Lesser, & Epstein, 2010; Rao, Anderson, Inui, & Frankel, 2007). In addition, there is evidence that communication training can enhance relationships between families and other types of institutions. For example, parent–teacher cooperation programs can lead to improved relationships and positive student outcomes (Daniel, 2011; Kraft & Rogers, 2015).

Most relevant to PICAL, cooperative communication programs have been found to be effective in nursing homes. Pillemer and colleagues (2003) tested a cooperative communication training intervention in nursing homes, and Robison and colleagues (2007)...
replicated this program in special care units for dementia patients. Families who participated in the training showed significant improvement in communicating with staff and in viewing staff behaviors as more positive toward themselves. Staff reported reduced conflict with families and a lower likelihood of planning to quit their jobs. Most notably, in the special care unit study, residents’ behavioral symptoms decreased for the intervention group but not for the control group.

As these study results indicate, improving communication skills is a promising strategy for families and nursing home staff. We hypothesized that similar benefits would occur in AL for staff and families. AL communities increasingly share characteristics with nursing homes, and, in particular, they are caring for growing numbers of residents who require memory care (Han et al., 2017). Further, the barriers to communication described earlier apply to AL communities, including cultural differences, heavy staff workload, and ongoing family involvement after the residents move in.

**Components of the PICAL Intervention**

PICAL consists of two parallel training sessions provided to family members and staff members and a joint meeting with the administrator (see Figure 1 for a description of the training components). The training sessions teach participants communication techniques, including active listening skills, types of feedback, and guidelines for handling conflicts and disagreements. In addition, exercises foster empathy for and greater understanding of the needs and stresses of the other group. The training methods are highly interactive and include brainstorming sessions, case discussions, and role-playing. A manual is available that contains full descriptions of each activity, directions for facilitation, and all slides and handouts needed to conduct the training (http://citra.human.cornell.edu/pical).

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<th>Figure 1. Components of the Partners in Care in Assisted Living Program</th>
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<tr>
<td><strong>A.</strong> Introduction to Partners in Care in Assisted Living (10 minutes): Introduces the goals of the program and the major activities.</td>
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<tr>
<td><strong>B.</strong> Advanced Listening Skills (45 minutes): Provides training in active listening skills (e.g., encouraging others to talk, asking open-ended questions), avoiding “communication blockers” (e.g., labeling, excessive questioning, avoidance), and using feedback techniques. The skills are practiced in a role-playing exercise.</td>
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<tr>
<td><strong>C.</strong> Saying What You Mean Clearly and Respectfully (45 minutes): Introduces and practices the technique of “I-Messages” using role-playing exercises based on participants’ experiences.</td>
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<tr>
<td><strong>D.</strong> Handling Blame, Criticism, and Conflict (60 minutes): Provides a seven-step process for preventing and dealing with arguments and open conflicts with the other group. Techniques are practiced using role-play and case-study approaches.</td>
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<tr>
<td><strong>E.</strong> Planning a Joint Session With Family, Staff, and Administrators (10 minutes): Group members plan, organize, and develop an agenda for the joint session with administrators.</td>
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<tr>
<td><strong>F.</strong> Evaluation of Training (10 minutes): Group members complete an evaluation form and provide feedback on the program.</td>
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<tr>
<td><strong>G.</strong> Joint Session (60 minutes): After both groups have completed the training, they meet to discuss their concerns with the administrator. A format is provided to identify at least one issue for change and plan next steps.</td>
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The staff and family training sessions each take approximately 3 hours to complete. After both groups have been trained, the joint session with the administrator is held, during which staff and families have the opportunity to discuss their concerns (approximately 1 hour). This meeting follows a structured format and encourages the sharing of ideas and proposals for changes that would foster better family–staff cooperation. Examples of possible changes include establishing a family council, creating a board with photographs of staff that is updated when turnover occurs, and placing short biographies of residents outside their rooms so staff members have deeper knowledge of their backgrounds.
DESIGN AND METHODS

The evaluation combined qualitative and quantitative approaches to achieve several aims. First, we wished to examine subjective satisfaction with the program, as well as the reasons for participants’ assessments of PICAL. Second, we conducted a process evaluation to determine facilitators and barriers to implementation. Third, we examined whether family and staff involvement in PICAL would lead to positive changes among both groups. We hypothesized that improvements would occur in perceptions of the other group and in assessments of the other group’s behavior for both family and staff. Specifically, we hypothesized that PICAL participants would report (1) improved experiences with, and attitudes toward, the other group, and (2) decreased problems in face-to-face interaction, including interpersonal conflict. In addition, we examined more distal outcomes, including psychological well-being and caregiver burden among family members and job burnout and psychological well-being among staff.

Participants

The PICAL intervention study originally included 20 AL facilities in eight states. The states were chosen to be broadly representative of regions of the country and included Colorado, Florida, Michigan, Ohio, Illinois, New York, Connecticut, and Pennsylvania. Participating communities were purposively selected from two national senior living providers based on their interest in the program and perceived capacity to engage in an evaluation research project. All communities had at least 50 beds and were able to assign a staff person to work with the research team. The 20 communities were randomly assigned to the treatment or control condition. One treatment community was unable to conduct the program after selection; therefore, we report findings based on 9 treatment communities and 10 controls. Thus, the study did not involve random selection of AL communities, but included randomization only in assignment to the treatment or control condition.

PICAL is conceived as a residence-wide intervention in which the new communication skills will be diffused among participants and nonparticipants. It is expected that participating families and staff will share and model the new skills with others in the community. Further, the skills learned should improve communication with members of the other group, whether or not they personally attended the training. For this reason, randomization took place at the AL community level. All staff members in the community who had at least occasional contact with family members (e.g., resident care associates, certified nursing assistants, nurses, medications aides, housekeepers, dining assistants, receptionists) were eligible to participate. Across communities, approximately 40% of eligible staff took part in the intervention. In terms of families, the individual listed as the responsible relative or caregiver was invited to the training, and approximately 15% of family members participated (see below for discussion of recruitment of family members).

Because PICAL is a residence-wide intervention, all eligible staff and family members were asked to participate in the evaluation. A total of 576 staff members and 295 family members provided data. Data were collected in the community during the month preceding the intervention and 1 month after it took place. Staff completed forms on site. Family data were collected via an online survey (with a paper copy option for individuals unable or unwilling to complete the online survey). Scales were included with established reliability and validity and that have been used in previous studies of families and staff in long-term care settings. Characteristics of the treatment and control groups are provided in Tables 1 and 2. No statistically significant differences were found at baseline between the treatment and control groups on any of these variables.
Family measures. Family members completed scales measuring their views of interactions with staff and attitudes toward them, as well as their own well-being. The Interpersonal Conflict Scale (Pillemer & Moore, 1989) asks how frequently the family member experiences arguments or conflicts with staff members over items such as food, laundry, and administrative rules. The Staff Provision to Residents Scale (Pillemer et al., 1998) asks families to rate the care provided by staff to their relatives. The Staff Behaviors Scale (Pillemer et al., 2003) measures family perceptions of how often staff members provide them with news, encouragement, or suggestions. The Staff Empathy Scale (Pillemer et al., 1998) asks families the degree to which they perceive staff as understanding, easy to talk to, or helpful. A shortened version of the Nursing Home Hassles Scale (Stephens et al., 1991) assesses how often families experience negative staff behaviors, such as being rude or intolerant toward the resident. We assessed caregiver burden by using a shortened version of the Zarit Burden Interview (Zarit, Todd, & Zarit, 1986), which contains six items from the scale that relate to nursing home caregivers. To measure psychological well-being, we administered a seven-item version of the Center for Epidemiologic Studies–Depression (CES-D) Scale.

Staff measures. Two staff outcomes were identical to those asked of family members: the Interpersonal Conflict Scale...
and the CES-D Scale. Staff also completed the Family Behaviors Scale, which measures staff perceptions of how often family members treat them with respect, act rudely, smile and greet them, or ignore them (Pillemer et al., 1998). The Family Empathy Scale asks staff the degree to which family members understand how much time it takes to do the staff member’s job, are mostly concerned about their own needs, and are sensitive to staff members’ feelings (Pillemer et al., 2003). Staff burnout was measured with the Depersonalization Subscale of the Maslach Burnout Inventory (Maslach, 1982), modified by Pillemer and Moore (1989) for use with nursing home staff. Measures were selected based on established reliability and validity and prior use with staff and families in long-term care.

RESULTS

Descriptive Results: Family and Staff Attitudes Toward One Another

This study resulted in the largest available data set on how family members and staff view one another and their relationships in AL. In addition to allowing us to evaluate the effects of the PICAL intervention, the data provide a unique view of the interactions between the groups. Using the pretest data collected before the intervention, we begin by presenting a portrait of family–staff relations to provide the context for the evaluation results that follow.

Family perspectives. Family members expressed positive opinions about some aspects of their experience in AL. Particularly high ratings were given on their assessment of the care provided to their relative. They were asked how frequently staff acted toward the resident in various ways, with negative responses of “never or “rarely” and positive responses of “sometimes” or “almost always.” Fully 98% of families reported that staff routinely provide warm and kind care, 93% felt staff provide regular encouragement and support to the resident, and 90% believed that staff provide good personal care.

Families were also asked about what staff provide to them (as opposed to the resident). Greater room for improvement was identified in this area, which supports the rationale for the PICAL training. Among family members, 65% reported that staff regularly provide them with news about their relative; 64% felt that staff provide encouragement and support to families; and 53% indicated that staff provide them with suggestions about care.

Families were provided with a list of issues that can arise in AL and asked how frequently they had arguments or conflicts with staff members each month about each issue. In most cases, families identified such conflicts as occurring less than once a month. We report here on the percentages of family members who experienced at least one argument or conflict a month. Across the range of items, approximately 20% of families experienced at least one conflict, including over meals/food, laundry/clothing, and toileting issues. A lower incidence was found for resident’s appearance (16%) and administrative rules (10%). Somewhat higher levels of monthly conflict were found for attentiveness to the resident’s needs; nearly one-third of family members (32%) noted at least one such argument per month. A different question asked families how frequently they feel the need to tell staff about how to care for the resident. Two-thirds of family members reported that this occurred at least occasionally. Taken together, these findings suggest that improved communication specifically around care issues may be beneficial.

Staff perspectives. Staff were asked a series of questions regarding their perceptions of how family members act toward them. Responses were generally very positive, with fully 100% reporting that families regularly treat them with respect, and 99% indicating that family members are likely to smile and greet them. In addition, 80% of staff believe that family members understand how much time it takes to care for residents. However, staff also were somewhat likely to report that family members are occasionally rude with requests (41%) and at times ignore them or brush them aside (22%). These behaviors are consistent with the need for improved communication, which can be addressed by training.

Staff reported somewhat higher rates of arguments or conflicts than did family members. It is likely, however, that this finding is the result of staff interacting with larger numbers of family members than families interact with staff, and, thus, staff members have more opportunities for conflicts. They reported the highest rates of at least monthly conflict over the issues of laundry/clothing (39%) and meals/food (36%). Regarding other items,
approximately 25% of staff members experience at least monthly arguments or conflicts over personal care, administrative rules, the resident’s appearance, toileting, and attentiveness to the resident’s needs.

These descriptive findings point to both positive aspects of the situation and the potential for improvement. In every variable we examined, a majority of staff and families reported positive aspects of the relationship, either as a lack of regular conflict or negative behaviors or as evidence of positive behaviors toward them. Families, in particular, strongly endorsed the role of staff members in providing compassionate care for residents. However, communication is clearly stressful for some individuals, and conflict occurs relatively frequently. The findings suggest that key “flash points” center around caregiving activities and unmet expectations for care.

**Evaluation Results**

As noted earlier, of the 20 AL communities selected for the PICAL intervention, 1 dropped out of the program before initiating the training; therefore, we report on 9 intervention communities and 10 controls. After recruitment, each community was randomly assigned to the treatment or control group. Random assignment was accomplished by numbering the AL communities from 1 to 19 and selecting numbers from a random numbers table. After the intervention was complete, the training was made available to control communities. Participants were asked a series of questions about their satisfaction with PICAL in the posttest interview (which, as noted, occurred 1 month after the end of the program).

**Satisfaction with PICAL.** Participants’ subjective evaluations of the PICAL intervention were overwhelmingly positive. Among staff, when asked if the program could be improved, 92% did not see a need for improvement. Ninety-four percent of staff members rated the program as helpful, and 93% would recommend the program to another staff person. In terms of specific gains from the program, the vast majority of staff members reported that PICAL had increased their understanding of the feelings of family members (86%), increased their understanding of family members (85%), made them feel more comfortable when family members ask for information (86%), and made them feel more comfortable when family members express concerns over their relative’s care (86%). Family members also were positive about their experiences in PICAL. A majority (75%) of participants felt that no improvements were needed. Eight-nine percent would recommend the program to another caregiver. Fully 97% reported that the program was helpful to them. Family members’ ratings of specific gains from the program were also positive but more mixed than those of staff members. Between two-thirds and three-quarters of family members reported that PICAL had taught them new ways of communicating with AL staff (66%), increased their understanding of the feelings of AL staff (71%), increased their appreciation of AL staff (74%), made them feel more comfortable asking staff for information (66%), and made them feel more comfortable voicing their concerns about the family member’s care (60%).

To better understand possible mechanisms for intervention effects, we asked participants what they liked best about the PICAL training. The responses showed a somewhat different pattern between staff and families. Qualitative responses from staff regarding what they liked most focused primarily on learning concrete communication skills and on developing empathy for and understanding of families. Staff reported that the specific tools and tips for communication, as well as concrete guidance in managing interactions, were beneficial. They also appreciated knowing that family members were receiving similar training to understand the staff’s perspective. The following is a typical response from a staff participant:

> I really found the “I-statements” to be important. It’s something that you talk about sometimes but you don’t sit and practice. Sometimes the I-statements were hard for people, and it was fun to see them try to figure out how to connect with people in that way. It’s also very important that they brought role-playing into it. Just hearing the words you are planning on saying to family members can be really helpful. One of the things we found in our role-plays is that some people judge or put motives behind something that aren’t really there. You notice that stuff and you can try to improve on it.

Although family participants also noted these benefits, they emphasized to a greater degree the benefits of open and frank discussions with other relatives of residents who
were going through the same situation. They highlighted the benefits of exchanging information with other family members and learning that they were not alone in their efforts to engage with the AL community. As a family member put it:

The most I got out of it was not to be afraid of the people who work here. Many times, my mother is afraid to tell them anything but I hear it. When I did the training with the other family members, many of them felt the same way, that their parents were afraid to speak up.

Both staff and family members highlighted the opportunities to understand the experience and motivations of members of the other group and to build empathy with them. A family member noted, “I learned that when the staff members hear what we family members think should be done differently, it’s the same things they are working on. It was the same exact things! But we didn’t know because we didn’t think to ask what they thought.”

Staff members made similar comments:

One of the things that I really took away from the training is how important it can be to connect with the family members in the same way that we connect with our residents. Are we bringing those family members to the table? What they have to say, what they know about their family life, what they know about their parents. It helps bring them into the conversation.

In light of the relatively small number of participants who felt the program could be improved, there were limited suggestions for changes. The most frequent suggestion was shortening the intervention, as staff felt the pressure of their job responsibilities mounting while they were in the training. Interestingly, although some family members agreed that the training could be shortened, a number suggested the reverse; they suggested there be follow-up meetings for families after the original training. In general, because of the high levels of satisfaction with PICAL, no consistent suggestions for program modification emerged.

Outcome Evaluation

Statistical approach. To evaluate outcomes of the PICAL intervention, we examined differences between the treatment and control groups for the family and staff outcomes described earlier, after controlling for important influences on family and staff perspectives. All outcome variables were measured at baseline before the intervention and at a 1-month follow-up after the intervention. A 2 × 2 repeated-measures design (treatment by time) thus forms the core of the statistical models for evaluation. The key tests of whether the intervention had an effect are the test of the time-by-treatment interaction and specific, preplanned contrasts partitioned from that interaction. Because this is the first study of its kind, we report findings that are significant at the .10 level, as we wish to include results that potentially can be confirmed in future research.

Effect of intervention on staff and family outcomes. The analyses revealed positive treatment effects for staff (Table 3). The strongest effects were found on the staff’s reports of the frequency of conflicts with family members. Although the reported incidence of family conflict increased for controls, it declined for staff members in AL facilities in which the PICAL training took place \( p = .005 \). A reduction in scores on the Burnout Scale was noted for staff in the treatment group in comparison to controls \( p = .080 \). In terms of psychological well-being, scores on the CES-D Scale declined in the staff treatment group compared with controls \( p = .091 \). None of the other outcome scales approached significance. Regarding families, no results were statistically significant for any of the outcome variables.

We also should point out that no unexpected negative effects were found on any variable, as is sometimes the case in program evaluations. One previous study that focused on increasing involvement of family members in long-term care found unanticipated negative results, including an increase in guilt and conflict among family members (Zimmerman et al., 2013). Thus, it is encouraging that changes occurred in a positive direction on several variables, and negative consequences were absent. The stronger effect on staff members is possibly the result of their greater participation rates in the training.
IMPLEMENTATION FINDINGS

In addition to evaluating outcomes of participation in PICAL, we conducted a process evaluation designed to document implementation in the treatment communities. Overall, the evaluation suggests that implementing PICAL is feasible for AL communities. With one exception, the selected communities successfully recruited participants and carried out intervention activities. Several important insights regarding implementation emerged from the process evaluation, which included interviews with administrative staff and project trainers.

First, implementation was affected by the lack of discretionary time on the part of administration and direct care staff in the communities. PICAL was designed to take approximately 3 hours for each staff and family workshop, followed by an additional hour-long meeting with the administrator. Although we considered this time frame to be relatively compact, in some cases it was difficult for facilities to release staff for 3 hours of training. In addition, organizing and publicizing PICAL required time from at least one administrative staff member. We learned that staff members’ jobs are sufficiently time-consuming that adding this responsibility was burdensome in some cases.

Second, some communities found it challenging to recruit family members for the training. This difficulty was in contrast to the experience of conducting similar programs in nursing homes in which family members were more eager to participate (Pillemer et al., 2003; Robison et al., 2007). One possible reason for this difficulty is that family members in AL communities experienced fewer problems than did individuals with relatives in nursing homes; therefore, they may have found the need for this program to be less urgent. Second, the majority of family members were middle-aged offspring of the care recipient and, therefore, were likely to have competing work and family responsibilities that made the time commitment difficult.

Third, PICAL was conceived as a “train the trainer” model in which the project team would train an AL community staff member, who, in turn, would implement PICAL. In several communities, however, this model was difficult to sustain. Unlike nursing homes, few AL communities have a designated staff development position, making it challenging to fit the training and organization responsibilities into the workload of a busy staff person. Consequently, we also made available an external trainer model in which the project team provided the training. The program can easily be implemented in either mode: using an external trainer hired for the project or training an internal staff member if one is available with the requisite time and skills.

Although testing was beyond the scope of this project, we explored solutions to the problem of time constraints on the part of staff and residents’ family members. Specifically, we created a streamlined version of PICAL that can be carried out in approximately 1 hour. Based on feedback from participants, we identified the exercises

<table>
<thead>
<tr>
<th>Scale</th>
<th>Within-Group Change Over Time</th>
<th>Baseline (T1)</th>
<th>Follow-Up (T2)</th>
<th>T2-T1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Conflict Scale</td>
<td></td>
<td>Control</td>
<td>Treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.92</td>
<td>5.30</td>
<td>1.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.58</td>
<td>2.78</td>
<td>-0.81</td>
</tr>
<tr>
<td></td>
<td>(p value)</td>
<td>.716</td>
<td>.020</td>
<td>.005</td>
</tr>
<tr>
<td>Burnout Scales</td>
<td></td>
<td>Control</td>
<td>Treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11.79</td>
<td>12.02</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11.78</td>
<td>11.15</td>
<td>-0.64</td>
</tr>
<tr>
<td></td>
<td>(p value)</td>
<td>.976</td>
<td>.095</td>
<td>.081</td>
</tr>
<tr>
<td>Depression Scale</td>
<td></td>
<td>Control</td>
<td>Treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.55</td>
<td>0.6</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.83</td>
<td>0.6</td>
<td>-0.23</td>
</tr>
<tr>
<td></td>
<td>(p value)</td>
<td>.031</td>
<td>.998</td>
<td>.091</td>
</tr>
</tbody>
</table>

Notes. Data are means and mean differences. The model also includes sex, education, and race of staff members as fixed classification factors, and communities and staff members as levels of random classification factors.
and activities that they found most beneficial and created a “turn-key” training program that can be conducted with a group leader or in a self-led group of staff or families. This program includes a video that introduces all activities, as well as accompanying handouts for discussions and role-plays (also available online). This flexibility in program length and complexity may make adoption more feasible in some facilities.

Taken together, the findings regarding implementation are generally encouraging. PICAL involved a commitment of time and staff resources that exceeds that of most AL training (which often takes place in short in-service meetings). Thus, the ability of the communities to carry out the program and achieve participant satisfaction suggests that it can be adopted in many AL residences. Testing the shortened version of PICAL was not possible in the present project, but future evaluation should be conducted to determine whether it achieves similar results.

**CONCLUSION**

Over the past 2 decades, there has been significant growth in the AL sector (Grabowski, Stevenson, & Cornell, 2012). During the same period, the AL population has come to resemble nursing home residents to a greater degree. It is therefore likely that the challenges in family–staff relationships identified in nursing homes are also widespread in AL communities. To date, few programs have addressed the need for improved communication between staff members and relatives of residents in AL. In response to this need, PICAL was created and evaluated using a controlled design and a qualitative process evaluation. Participant satisfaction was very high, and an outcome evaluation showed improvement on several outcomes for AL staff. Detailed and easy-to-use program materials are available for replication of PICAL in other AL communities at no cost.

Several limitations of this study point to directions for future research. First, the AL communities were purposively selected, in part based on perceived capacity to implement the project. This selection process may have introduced bias into the sample. A useful next step would be to conduct an evaluation that includes random selection of communities. Second, given the greater participation of staff and the greater positive impact on staff outcomes, it would be worthwhile to test a version of the program targeted only to staff, to determine if this modification results in similar benefits. Third, we did not have information about staff or family members who chose not to participate in the data collection, and, therefore, we could not compare responders to nonresponders.

A broader implication of this study is the need for awareness and action in AL communities regarding interactions between family members and staff. Research on human relationships has shown that negative social interactions are highly aversive and lead to psychological distress (Almeida, 2005; Rook, 2015). In a setting such as an AL community, repeated interpersonal conflicts and communication problems can build up over time, diminishing the well-being of families, reducing job satisfaction among staff, and potentially resulting in less-than-optimal care of residents. As our data show, staff members are frequently confronted with conflicts and arguments with families but receive little training in managing such stressful communication issues.

Further, research suggests that interventions that facilitate family members’ adjustment to a formal care setting should take place soon after the resident moves in (Lethin, Hallberg, Karlsson, & Janlöv, 2015; Schulz et al., 2014). In confirmation of that insight, a number of PICAL participants suggested that the program be offered to family members at the time the relative enters the AL community. Engaging relatives in cooperative communication at the beginning of the residential transition could have significant benefits throughout the relative’s stay and contribute to his or her quality of care.

The PICAL program shows that training in relatively simple communication skills can have a positive impact. Making such skills a part of every staff member’s tool kit is likely to benefit staff, families, and the community as a whole. Future research on this topic, as well as replication studies of the PICAL program, can shed light on improvements to the program that may increase benefits and facilitate ease of adoption. Such efforts should increase the likelihood that families and staff will see themselves as partners in care.
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Problem: This article highlights the importance of measuring and tracking employee workplace motivation, its relationship with both employee and resident satisfaction, and its role in creating a high-performing culture in seniors housing communities.

The Resolution: The results of this study suggest a positive correlation between employee motivation, employee satisfaction, and resident satisfaction. Employees with the highest motivation are more likely to recommend their community and are more likely to be satisfied with both their working conditions and their job overall. Communities with the most motivated employees also have the most satisfied residents.

Tips for Success: These results point to the need for owners and operators of seniors housing communities to put measures into place to increase and/or maintain employee motivation.

Keywords: Motivation, customer satisfaction, employee motivation, employee satisfaction
INTRODUCTION

The success of a seniors housing community is rooted in a wide variety of elements—from the location of the community to the people who fill its rooms and the employees who provide its services. Each attribute of a community affects the satisfaction of its customers and employees and, more importantly, their willingness to recommend the community to family and friends.

More than a half century ago, Leibenstein (1966, p. 413) argued that “for a variety of reasons people and organizations normally work neither as hard nor as effectively as they could,” and he regarded motivation to be a major determinant of efficiency. Since Leibenstein’s work, the discussion about what motivates real people in real organizations has centered around a variety of theories, including the idea that managers should focus on commitment rather than control (Walton, 1985), and that new, innovative work systems and management practices should enhance that commitment through involvement and empowerment of employees (Freeman & Kleiner, 2000; Mohr & Zoghi, 2008; Osterman, 1994; Osterman, 2000).

The most contemporary theories of workplace motivation, however, assume that employees will initiate and persist in various jobs to the extent that they believe their persistence will lead to desired outcomes or goals (Ryan & Deci, 2000). Employees are often motivated by external factors such as bonuses, promotions, job evaluations, or the opinions they fear others might have of them. Yet, just as frequently, they are motivated from within, by their own interests, sheer curiosity, morals, or abiding values. These intrinsic motivations are not necessarily externally rewarded or supported, but nonetheless they can sustain passions, creativity, and continued efforts. The interplay between the extrinsic forces acting on individuals and the intrinsic motives and needs inherent in human nature is the basis of what researchers Edward L. Deci and Richard M. Ryan (1985) have described as their Self-Determination Theory.

Total Motivation

To build a high-performing culture in a seniors housing community, or in any organization for that matter, community executives need to be focused on their employees’ total motivation—that is, why employees do their work (Doshi & McGregor, 2015). Total Motivation, or ToMo, is the simple theory that why people work determines how well they work. Rooted in the framework of Deci and Ryan's (1985) self-determination theory, ToMo postulates that there are six reasons or factors why people work. Three factors are considered to be intrinsic or direct motives and lead to higher performance, while three other factors, the extrinsic or indirect motives, lead to lower performance (Doshi & McGregor, 2015).

The three factors that increase motivation are play, purpose, and potential. The first factor, play, occurs when a person engages in an activity simply because he or she enjoys doing it. The work itself is considered to be rewarding. Play is the strongest of the direct motives. The second direct motive, purpose, occurs when a person engages in an activity, not necessarily because he or she enjoys doing so, but because he or she values the outcome or the impact of engaging in that activity. This direct motive falls between the strongest, play, and the weakest, potential. The third contributing factor to motivation, potential, refers to finding value in a second order, or an indirect, outcome of engaging in an activity. In other words, a person might engage in an activity that he or she may not derive much enjoyment from because the activity will eventually lead to something better or move the person closer to his or her personal goals.

The other three reasons why people work detract from their overall motivation. These factors include emotional pressure, economic pressure, and inertia. Emotional pressure, when fear of experiencing emotions such as disappointment, guilt, or shame compels a person to engage in an activity, is the weakest of the three indirect motives. The effects of economic pressure, the second indirect motive, can be much more severe and, thus, have a greater impact on motivation. Economic pressure refers to engaging in an activity solely to gain a reward or to avoid punishment. Someone is said to have high economic pressure when he or she works at a particular job simply to collect a paycheck or avoid getting fired. Finally, and most important, inertia, the strongest of the indirect motives, is the idea that a person continues to engage in an activity simply because he or she did it yesterday. In other words, there is no good reason why he
or she continues to engage in the activity.

High-performing cultures maximize the motivations that lead to higher performance and minimize those that lower performance. This is known as creating ToMo. According to Doshi and McGregor (2015), many companies in the United States have fairly low ToMo. A common misconception that often fuels these low scores is the idea that leaders have to be authoritarian to attain high performance. However, Doshi and McGregor found quite the opposite; happy employees and high-performing organizations are not mutually exclusive. Investing in one leads to the other. Organizations that create a balance of play, purpose, and potential are able to combat low performance and increase their bottom line.

In this article, we highlight the importance of employee ToMo on both employee job satisfaction and overall customer satisfaction among Watermark communities. We also discuss the variables that contribute to and detract from ToMo. Results are discussed in terms of their implications for developing a high-performing culture in the seniors housing industry.

**METHOD**

**Overview of the Survey**

For the past 4 years, Watermark Retirement Communities has engaged ProMatura Group to conduct, analyze, and report the findings from satisfaction surveys conducted across its continually growing portfolio. The survey is conducted annually, on paper or online, with residents of the independent living (IL) residences, residents and families of the assisted living and long-term care residences, families of the memory care residents, and among all Watermark employees. For the purposes of this article, we focus only on the IL residents because they represent the largest level of care among Watermark communities, and, as a result, make up the largest proportion (70%) of residents who completed a survey (Table 1). Likewise, we only included employees from those communities that offer IL services.

<table>
<thead>
<tr>
<th>Level of Care</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent living</td>
<td>2,530</td>
<td>70%</td>
</tr>
<tr>
<td>Assisted living</td>
<td>915</td>
<td>25%</td>
</tr>
<tr>
<td>Skilled nursing</td>
<td>159</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,604</td>
<td>100%</td>
</tr>
</tbody>
</table>

The IL survey instrument queried residents on various services provided by the community (e.g., housekeeping, maintenance, dining, care), their overall satisfaction with their community, and their demographics (e.g., age, sex). The survey provided space for residents to record comments and suggestions for each service area and for the community overall.

Residents answered the questions relating to the service areas using a 4-point improvement scale: “needs no improvement,” “needs minimal improvement,” “needs some improvement,” and “needs considerable improvement” (Table 2). The questions addressing overall quality were answered on a 5-point agreement scale (“strongly agree,” “agree,” “neutral,” “disagree,” or “strongly disagree”).

The employee survey consisted of a series of questions related to the overall delivery of services at Watermark communities; evaluation of the employee’s job, coworkers, work environment, and available resources; opinions about the employee benefit package; opinions of the Watermark community in general; satisfaction with the Watermark community; and the six-item ToMo questionnaire (Table 3). With the exception of the ToMo questionnaire, employees answered all survey items using a 5-point agreement scale (“strongly agree,” “agree,” “neutral,” “disagree,” or “strongly disagree”).
## Table 2. Service Areas and Overall Satisfaction Questions in IL Survey

<table>
<thead>
<tr>
<th>Service Areas Addressed</th>
<th>Scale Used</th>
<th>Improvement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td></td>
<td>Needs no improvement</td>
</tr>
<tr>
<td>Housekeeping</td>
<td></td>
<td>Needs minimal improvement</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td>Needs some improvement</td>
</tr>
<tr>
<td>Executive director</td>
<td></td>
<td>Needs considerable improvement</td>
</tr>
<tr>
<td>Dining</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wellness services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Overall Satisfaction Areas Addressed

- I have made friends here.
- The staff is friendly.
- I feel safe and secure here.
- I feel “at home”.
- This community appears to run smoothly.
- I am willing to recommend this community.
- This community offers me good value.
- The staff is competent to do their job.
- I am satisfied with the quality of services here.
- I am satisfied with my quality of life

## Table 3. Overall Satisfaction and Total Motivation (ToMo) Questions in Employee Survey

<table>
<thead>
<tr>
<th>Overall Satisfaction Areas Addressed</th>
<th>Scale Used</th>
<th>Agreement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watermark appears to run smoothly.</td>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>I am willing to recommend employment</td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>at Watermark to a friend.</td>
<td></td>
<td>Neutral</td>
</tr>
<tr>
<td>I am willing to recommend</td>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td>Watermark to a prospective resident.</td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>I am satisfied with my working</td>
<td></td>
<td></td>
</tr>
<tr>
<td>conditions at Watermark.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my job at Watermark.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ToMo Questionnaire

- I continue to work at my current job because the work itself is fun to do. *(play)*
- I continue to work at my current job because I believe this work has an important purpose. *(purpose)*
- I continue to work at my current job because this type of work will help me to reach my personal goals. *(potential)*
- I continue to work at my current job because if I didn’t, I would disappoint myself or people I care about. *(emotional pressure)*
- I continue to work at my current job because without this job, I would be worried I couldn’t meet my financial objectives. *(economic pressure)*
- There is no good reason why I continue to work at my current job. *(inertia)*
Survey Participation

In an effort to ensure both the validity and reliability of the survey results, we included only communities with a minimum of 20 IL residents and 20 employees who completed a survey. A total of 1,959 IL residents and 669 employees representing 29 communities were included in the analyses presented in this article. The margin of error is ± 1.4% for IL resident responses and ± 2.4% for employee responses (Table 4).

Employee Demographics

Among the 669 employees included in this study, the largest proportion (37%) worked in food service; 26% worked in security, maintenance, housekeeping, or laundry; and 22% worked in administration and community life. The remaining 15% of employees worked in nursing, sales and marketing, or transportation services (Table 5). The demographic characteristics of employees are listed in Table 6.

Table 4. Quality Improvement Surveys Distributed and Returned, and Response Rate Among Participating Independent Living (IL) Watermark Retirement Communities

<table>
<thead>
<tr>
<th>Variable</th>
<th>2017 Survey (N = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL resident surveys distributed</td>
<td>2,787</td>
</tr>
<tr>
<td>IL resident surveys completed</td>
<td>1,959</td>
</tr>
<tr>
<td>IL resident response rate</td>
<td>70.3%</td>
</tr>
<tr>
<td>IL resident margin of error</td>
<td>± 1.4%</td>
</tr>
<tr>
<td>Watermark employee surveys distributed</td>
<td>1,093</td>
</tr>
<tr>
<td>Watermark employee surveys completed</td>
<td>669</td>
</tr>
<tr>
<td>Watermark employee response rate</td>
<td>61.2%</td>
</tr>
<tr>
<td>Watermark employee margin of error</td>
<td>± 2.4%</td>
</tr>
</tbody>
</table>

Table 5. Distribution of Employees by Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration and community life</td>
<td>146</td>
<td>22%</td>
</tr>
<tr>
<td>Food service</td>
<td>245</td>
<td>37%</td>
</tr>
<tr>
<td>Nursing</td>
<td>29</td>
<td>4%</td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>44</td>
<td>7%</td>
</tr>
<tr>
<td>Security, maintenance, housekeeping, and laundry</td>
<td>177</td>
<td>26%</td>
</tr>
<tr>
<td>Transportation services</td>
<td>28</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>669</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Table 6. Distribution of Employees by Age, Sex, Highest Level of Education, Employment Status, Job Tenure, and Department

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Administration and Community Life</th>
<th>Food Service</th>
<th>Nursing</th>
<th>Sales and Marketing</th>
<th>Security, Maintenance, Housekeeping and Laundry</th>
<th>Transportation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean ToMo Score</td>
<td>53.8</td>
<td>20.9</td>
<td>40.0</td>
<td>57.8</td>
<td>27.5</td>
<td>33.1</td>
<td>33.6</td>
</tr>
<tr>
<td><strong>Age, years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 25</td>
<td>10%</td>
<td>46%</td>
<td>10%</td>
<td>0%</td>
<td>5%</td>
<td>0%</td>
<td>21%</td>
</tr>
<tr>
<td>25 to 34</td>
<td>16%</td>
<td>17%</td>
<td>24%</td>
<td>17%</td>
<td>16%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>35 to 44</td>
<td>10%</td>
<td>12%</td>
<td>35%</td>
<td>13%</td>
<td>18%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>45 to 54</td>
<td>22%</td>
<td>13%</td>
<td>14%</td>
<td>23%</td>
<td>24%</td>
<td>28%</td>
<td>19%</td>
</tr>
<tr>
<td>55 to 64</td>
<td>21%</td>
<td>10%</td>
<td>14%</td>
<td>35%</td>
<td>29%</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>≥ 65</td>
<td>22%</td>
<td>3%</td>
<td>3%</td>
<td>12%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>88%</td>
<td>60%</td>
<td>93%</td>
<td>89%</td>
<td>59%</td>
<td>29%</td>
<td>68%</td>
</tr>
<tr>
<td>Male</td>
<td>12%</td>
<td>40%</td>
<td>7%</td>
<td>11%</td>
<td>41%</td>
<td>71%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Highest Level of Educational Attainment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade school or less</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Some high school</td>
<td>1%</td>
<td>23%</td>
<td>3%</td>
<td>0%</td>
<td>11%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>High school graduate or G.E.D.</td>
<td>19%</td>
<td>42%</td>
<td>35%</td>
<td>17%</td>
<td>52%</td>
<td>43%</td>
<td>38%</td>
</tr>
<tr>
<td>Some college/associates degree</td>
<td>45%</td>
<td>26%</td>
<td>41%</td>
<td>33%</td>
<td>25%</td>
<td>36%</td>
<td>31%</td>
</tr>
<tr>
<td>College graduate</td>
<td>27%</td>
<td>7%</td>
<td>17%</td>
<td>43%</td>
<td>5%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>9%</td>
<td>0%</td>
<td>3%</td>
<td>7%</td>
<td>2%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>71%</td>
<td>59%</td>
<td>52%</td>
<td>98%</td>
<td>88%</td>
<td>79%</td>
<td>72%</td>
</tr>
<tr>
<td>Part time</td>
<td>27%</td>
<td>41%</td>
<td>45%</td>
<td>2%</td>
<td>11%</td>
<td>18%</td>
<td>27%</td>
</tr>
<tr>
<td>Temporary</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Per diem</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>0%</td>
<td>1%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Job Tenure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 2 years</td>
<td>42%</td>
<td>50%</td>
<td>48%</td>
<td>46%</td>
<td>34%</td>
<td>36%</td>
<td>43%</td>
</tr>
<tr>
<td>2 to 5 years</td>
<td>27%</td>
<td>30%</td>
<td>37%</td>
<td>16%</td>
<td>25%</td>
<td>32%</td>
<td>28%</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>18%</td>
<td>10%</td>
<td>15%</td>
<td>14%</td>
<td>19%</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>13%</td>
<td>10%</td>
<td>0%</td>
<td>25%</td>
<td>22%</td>
<td>11%</td>
<td>14%</td>
</tr>
</tbody>
</table>

*p < .001.
RESULTS

Calculating ToMo

Employee ToMo was calculated from the results of six questions, each with anchors of 1 “Strongly Disagree” and 7 “Strongly Agree” (Table 7). Each question is weighted according to how closely related it is to the work itself. The more the question relates directly to the work itself, the stronger the weight. The direct motives of play, purpose, and potential are totaled and the sum of the indirect motives of emotional pressure, economic pressure, and inertia are subtracted. ToMo scores can range from -100 to 100.

Employee ToMo Scores

Employee ToMo scores ranged from -99.6 to 100, with a mean score of 33.6. Employees who indicated they worked in administration and community life (mean ToMo = 53.8), as well as those in sales and marketing (mean ToMo = 57.8) had significantly higher ToMo scores than employees in any other department (Figure 1). Employees in food service had the lowest ToMo scores (mean ToMo = 20.9), followed by those in security, maintenance, housekeeping, and laundry (mean ToMo = 27.5).

We should note that employees in administration and community life, as well as those in sales and marketing, who had the highest ToMo scores, were older and more educated than employees in other departments. Employees in food service, who had the lowest ToMo scores, were the youngest and, consequently, had the shortest job tenures. Food service employees, along with individuals in security, maintenance, housekeeping, and laundry, were the least educated.

Relationship Between Employee Satisfaction and ToMo

Employees indicated their agreement with four statements regarding their overall satisfaction with their Watermark community: willingness to recommend employment at Watermark to a friend, willingness to recommend Watermark to a potential resident, satisfaction with their working conditions, and overall satisfaction with their job at Watermark (Table 8). More than one-third of all employees strongly agreed with each of the statements.

<table>
<thead>
<tr>
<th>Motive</th>
<th>Statement</th>
<th>Response</th>
<th>Weight</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play</td>
<td>I continue to work at my current job because the work itself is fun to do.</td>
<td>1-7</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>I continue to work at my current job because I believe this work has an important purpose.</td>
<td>1-7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Potential</td>
<td>I continue to work at my current job because this type of work will help me to reach my personal goals.</td>
<td>1-7</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Emotional pressure</td>
<td>I continue to work at my current job because if I didn’t, I would disappoint myself or people I care about.</td>
<td>1-7</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Economic pressure</td>
<td>I continue to work at my current job because without this job, I would be worried I couldn’t meet my financial objectives.</td>
<td>1-7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Inertia</td>
<td>There is no good reason why I continue to work at my current job.</td>
<td>1-7</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
When we took a closer look at the proportions of employees who strongly agreed with each statement, we found that those with the highest ToMo (i.e., those in administration and community life, and particularly those in sales and marketing) were the most likely to recommend Watermark as both a place to work and a place to live (Figure 2).

Likewise, employees in administration and community life, as well as those in sales and marketing, were most satisfied with the working conditions at Watermark and most satisfied overall with their jobs (Figure 3).

All four measures of overall satisfaction were significantly correlated with employees' ToMo scores (Table 9). As an employee's ToMo score increased, he or she was also more satisfied with working at Watermark, as well as more willing to recommend the community both as a place for employment and as a place to live.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agreement, % of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am willing to recommend employment at Watermark to a friend.</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>I am willing to recommend Watermark to a prospective resident.</td>
<td>3%</td>
</tr>
<tr>
<td>I am satisfied with my working conditions at Watermark.</td>
<td>3%</td>
</tr>
<tr>
<td>Overall, I am satisfied with my job at Watermark.</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 8. Employee Agreement With Overall Satisfaction Measures

Figure 2. Percentage of Employees Who Strongly Agree They Would Recommend Watermark Communities, by Department

Figure 3. Percentage of Employees Who Strongly Agree They Are Satisfied With Watermark Communities, by Department

Table 9. Pearson's Product Moment Correlations Between Employee Total Motivation (ToMo) and Measures of Overall Satisfaction

<table>
<thead>
<tr>
<th>Satisfaction Measure</th>
<th>r  Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am willing to recommend employment at Watermark to a friend.</td>
<td>.39*</td>
</tr>
<tr>
<td>I am willing to recommend Watermark to a prospective resident.</td>
<td>.43*</td>
</tr>
<tr>
<td>I am satisfied with my working conditions at Watermark.</td>
<td>.45*</td>
</tr>
<tr>
<td>Overall, I am satisfied with my job at Watermark.</td>
<td></td>
</tr>
</tbody>
</table>
IL Communities Grouped by Residents’ Mean Overall Satisfaction Score

We used data from the surveys completed by IL residents to calculate an overall resident satisfaction score for each community. Each of the 29 communities included in these analyses was placed into one of four resident satisfaction groups: the strongest group had the highest overall satisfaction mean, while the weakest group had the lowest overall satisfaction mean.

We determined a community’s resident satisfaction group on the basis of the community’s average of the sum of three 5-point Likert scale satisfaction questions: (1) I am willing to recommend this community to a family member or friend, (2) this community runs smoothly, and (3) I am satisfied with the quality of services at this community. An overall satisfaction composite score (sum) was calculated for each resident, which could range from a low of 3 (a rating of “1” on each of the three questions) to a high of 15 (a rating of “5” on each question). Higher numbers indicate greater satisfaction with the community. The mean overall resident satisfaction score determined the community’s resident satisfaction group.

Five of the 29 participating IL communities (17%) were placed in the strongest group, meaning they had the highest mean resident satisfaction scores. Resident satisfaction scores in the top group ranged from 13.81 to 13.32 (Table 10). Eight communities were in the weakest group, with a range of scores that were not significantly different from each other (10.42 to 9.17). The remaining 16 communities were in the strong and weak groups.

Relationship Between Resident Satisfaction and Employee ToMo

After we separated the 29 communities into resident satisfaction groups, we analyzed the data to determine if there was a relationship between the mean resident satisfaction score of a community and the community’s employee ToMo score. When we included all employee departments, there was no difference in the mean ToMo scores by resident satisfaction groups. Once we isolated the employees in administration and community life and sales and marketing, and compared ToMo scores across resident satisfaction groups of communities, we found that the communities in the strongest resident satisfaction group had the highest mean ToMo score. Likewise, as resident satisfaction declined, so did the mean employee ToMo score (Figure 4).

Table 9. Pearson’s Product Moment Correlations Between Employee Total Motivation (ToMo) and Measures of Overall Satisfaction

<table>
<thead>
<tr>
<th>Satisfaction Measure</th>
<th>r Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am willing to recommend employment at Watermark to a friend.</td>
<td>.39*</td>
</tr>
<tr>
<td>I am willing to recommend Watermark to a prospective resident.</td>
<td>.43*</td>
</tr>
<tr>
<td>I am satisfied with my working conditions at Watermark.</td>
<td>.45*</td>
</tr>
<tr>
<td>Overall, I am satisfied with my job at Watermark.</td>
<td>.48*</td>
</tr>
</tbody>
</table>

*Note. Correlation is significant at the .01 level (2-tailed).

Table 10. Mean Resident Satisfaction Composite Scores in Resident Satisfaction Groups

<table>
<thead>
<tr>
<th>Resident Satisfaction Group</th>
<th>Highest Score</th>
<th>Lowest Score</th>
<th>Number of Properties</th>
<th>Number of Independent Living Residents</th>
<th>Percentage of Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongest</td>
<td>13.81</td>
<td>13.32</td>
<td>5</td>
<td>345</td>
<td>17%</td>
</tr>
<tr>
<td>Strong</td>
<td>13.28</td>
<td>12.06</td>
<td>9</td>
<td>391</td>
<td>31%</td>
</tr>
<tr>
<td>Weak</td>
<td>11.90</td>
<td>10.42</td>
<td>7</td>
<td>705</td>
<td>24%</td>
</tr>
<tr>
<td>Weakest</td>
<td>10.42</td>
<td>9.17</td>
<td>8</td>
<td>388</td>
<td>28%</td>
</tr>
</tbody>
</table>
DISCUSSION

To our knowledge, this article is the first of its kind to highlight the role of employee motivation (ToMo) on both employee and resident satisfaction in the seniors housing industry. We have highlighted the importance of measuring and understanding the factors that motivate employees to do their jobs, and the influence of motivation on their satisfaction with and willingness to recommend the company. Numerous studies across a wide range of industries have demonstrated that a strong relationship exists between employee motivation, employee satisfaction, and customer satisfaction (Gilbert & Veloutsou, 2006; Harter, Schmidt & Hayes, 2002; Yang & Peterson, 2004). In fact, Chen (2011) described employees as internal customers whose satisfaction contributes to the overall customer’s satisfaction and organizational performance. Our study extends these findings to the seniors housing industry and highlights the need to explore the relationship between employee motivation, satisfaction (both employee and resident), and performance outcomes specific to rates and occupancies.

Not only is it important to have satisfied residents who are willing to recommend the community, but having employees who are motivated, satisfied, and willing to recommend the community increases word-of-mouth marketing tremendously and, thus, potentially increases sales. According to Nielsen (2012), 92% of consumers believe recommendations from friends and family over all forms of advertising. Having very satisfied employees and current customers nearly doubles the word-of-mouth reach and potentially increases market share and profitability in a highly competitive environment.

While much work remains, the results of this study show that among Watermark communities, employees in administration and community life had the highest ToMo scores, while food service employees and employees in security, maintenance, housekeeping, and laundry had the lowest scores. We noted that employees in administration and community life, as well as those in sales and marketing, who had the highest ToMo scores, were older and more educated than employees in other departments. Employees in food service, who had the lowest ToMo scores, were the youngest and, consequently, had the shortest job tenures. The results emphasize the importance of including questions that address workplace motivation among employees, putting procedures in place to increase that motivation, and tracking any changes in scores from year to year.

We also pointed out that the departments whose ToMo scores correlated most strongly with higher resident satisfaction are those that have significant connections and responsibilities pertaining to the company’s mission and vision. Among Watermark communities, the administrative department (primarily the Executive Director) is responsible for leading the community based on its own as well as the company’s mission and vision. The sales team is responsible for articulating the mission and vision to prospective residents. The community life team then creates programs that bring the vision into reality. Watermark communities has long observed that communities with these key departments highly aligned to their mission and vision perform better on a variety of key indicators, including resident satisfaction and occupancy rates. Our research appears to confirm these observations, as a strong connection to a vision would drive positive ratings on direct motivators. Operators will certainly want to note the importance of having highly motivated associates in these key departments.

Limitations and Future Research

Although surveys were offered to all residents and employees of Watermark communities, their decisions regarding whether or not to complete the survey were not necessarily random. Once a survey response rate falls below 70%, nonresponse bias may begin to affect the results. The lower the response rate, the greater the potential for nonresponse bias (Mazor, Clauser, Field,
Yood, & Gurwitz, 2002). Because of this inherent bias, the group of people who choose to answer a survey may not necessarily represent the customer or employee population as a whole. Residents and employees who actually turn in a completed survey are more motivated to take the time to answer the questions than are nonresponders; therefore, this group potentially contains a higher proportion of people who have had very good or, more often, very bad experiences. Changes in response rates will have significant effects on the survey results. Typically, lower response rates will produce more negative results, even if there is no actual change in the satisfaction level of the population (Rindfuss, Choe, Tsuya, Bumpass, & Tamaki, 2015). Future research on this topic should attempt to increase the proportions of both residents and employees who complete a survey, with a goal of having a 100% response rate.

Investigating the reasons for lower motivation among employees in food service, housekeeping, maintenance, and security is another topic for future research. Determining strategies to increase motivation in these departments, which are key infrastructure departments that can affect quality of life and safety for residents daily, should be of utmost importance. Multilevel modeling should be used to help determine if factors beyond younger age and shorter tenures are contributing to the lower motivation in these departments. Likewise, it will be useful to determine if older age, longer tenures, and greater educational attainment are contributing to higher motivation among employees in administration, community life, and marketing and sales departments.

CONCLUSIONS

Our analyses of the satisfaction survey data of both employees and IL residents of Watermark communities suggest there is a positive correlation between employee motivation, employee satisfaction, and resident satisfaction. In particular, the results imply that employees with the highest ToMo scores are more likely to recommend their community as a place to work and live and are more likely to be satisfied with both their working conditions and their jobs overall. The results also suggest that communities with the most motivated employees have the most satisfied residents.

These findings point to the need for owners and operators of seniors housing communities who want to cultivate a high-performing culture to determine the factors that motivate staff to perform at the highest level, and to put measures in place to increase and/or maintain employee motivation. Based on the results presented in this article, increasing employee motivation should lead to an improvement in overall customer satisfaction, a willingness of customers to recommend their community, and, therefore, potentially more sales.

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ABSTRACT

The Problem: Lack of sufficient exposure to bright light during the day can negatively affect the health and well-being of residents in dementia care communities.

The Resolution: Increased access to daylight in buildings has the potential to serve as an effective no-drug treatment alternative for certain neuropsychiatric symptoms in people living with dementia. New health-based lighting metrics, daylighting performance targets, in situ measurement techniques, and specialized lighting simulation approaches are presented that can be used to measure and evaluate the performance of the indoor environment with regard to human biological needs for light.

Tips for Success: By verifying access to sufficient daylight in existing care environments and by incorporating daylight analysis into the design of new projects, stakeholders can improve care for both residents and caregivers.

Keywords: Daylight, dementia care, health, circadian lighting
INTRODUCTION

In 2015, the population of people living with dementia worldwide was estimated to be 46.8 million and is predicted to increase to 74.7 million in 2030 and 131.5 million in 2050 (Alzheimer’s Disease International, 2015). All people living with dementia, if they survive, require full-time care, either in the home or a long-term care environment. In the coming decades, the rapid increase in demand for long-term supportive care will drive a significant level of new construction, as well as the need to repurpose and renovate existing buildings. Addressing this need presents a significant opportunity to improve the quality of care delivered to people living with dementia through improved design. The question is, how does the built environment impact the quality of care delivered to residents? Furthermore, how can emerging scientific knowledge of the health impacts of the built environment be translated to inform key decisions in the design, operation, renovation, and asset valuation of care environments?

Thoughtful consideration of the built environment, specifically the indoor environment, is critical for dementia care because it has the potential to serve as a non-drug treatment alternative for certain noncognitive symptoms of dementia. In clinical settings today, psychotropic medications such as antipsychotics are commonly used to control behavioral symptoms of dementia, such as aggression, agitation, depression, anxiety, delusions, hallucinations, apathy, and disinhibition (Kales, Gitlin, & Lyketsos, 2014). However, drug treatments have limited efficacy and serious adverse effects (Sink, Holden & Yaffe, 2005). This article focuses on the importance of light as a non-drug treatment in long-term care environments and seeks to translate emerging evidence related to the health impacts of light into practical lessons and recommendations for the senior living industry.

In addition to the human need for light for vision, light serves a number of nonvisual needs related to health. Light is the most potent timing cue for the circadian clock, which is responsible for synchronizing behavioral and physiological functions such as sleep/wake, alertness level, mood, hormone suppression/secretion, and core body temperature. The term circadian derives from the Latin circa dies or “about a day.” The period of the circadian clock in humans is close to, but not exactly, 24 hours, and it requires daily resetting from an external timing cue. Light is the most prominent cue, and in the absence of a circadian-effective light stimulus at the appropriate time during the day, the circadian clock can become disrupted, contributing to common problems such as fragmented sleep, nighttime wandering, night–day reversal, and agitation. In addition to the timing of light exposure, the wavelength, intensity, duration, and history of light exposure all affect the circadian response.

Light therapy techniques using specialized electrical lighting devices such as light boxes, typically administered during the morning, are known to be effective for certain affective disorders, sleep problems, and circadian rhythm disorders (Lucas et al., 2014). Although field studies of indoor light exposure are few, research has shown that compared with healthy older adults, people living with dementia receive significantly less exposure to bright light each day, with the greatest disparities found in long-term care environments. For example, in a study of nursing home patients, Ancoli-Israel and colleagues (1997) found that the median time of bright light exposure for patients with dementia was only 1 minute per day, and 47% were never exposed to more than 1,000 lux. Similarly, Shochat, Martin, and Marler (2000) found that nursing home residents were exposed to a median of 10 minutes of light greater than 1,000 lux per day.

No consensus exists for what constitutes a healthy “dosage” of light or how lighting parameters such as wavelength and intensity should be varied over a 24-hour period. However, in the past decade, new lighting metrics (Lucas et al., 2014; Rea, Figueiro & Bierman, 2010), measurement techniques (Konis, 2018), 24-hour lighting schemes (Figueiro, 2008), and design recommendations (Figuero, Gonzales, & Pedler, 2016) have emerged focusing on human nonvisual needs for light that are aimed at addressing these questions. New electrical lighting technologies and controls also are being developed and promoted to support nonvisual needs for light in addition to existing visual performance and energy efficiency goals. Electrical lighting technologies such as color-tunable light-emitting diode (LED) lighting fixtures present an opportunity to explore the potential to adjust the spectrum and intensity of light. However, it is unlikely that these technologies will serve as an effective and reliable surrogate for light from the sun and sky.
Use of daylight as the primary light source for human nonvisual lighting needs is attractive for a number of reasons. First, over millennia, light from the sun and sky served as a reliable indicator of time of day. Notably, the peak spectral power distribution (SPD) of daylight aligns closely with the peak sensitivity of the human circadian response. Inside buildings, daylight from windows can achieve orders-of-magnitude higher levels of intensity compared with the light output from conventional electrical lighting systems. Daylighting interior spaces via windows and skylights also serves to maintain a visual connection to the outdoors, which, in turn, can increase visual interest and stimulation for building occupants and aid in wayfinding, spatial orientation, and awareness of one’s surroundings. Further, daylight has a high luminous efficacy and, when integrated with daylight-dimming electrical lighting controls, can serve to offset the need to operate electrical lighting at full output during daylit hours, thereby reducing energy demand. Finally, our findings from a recent pilot study conducted in collaboration with Silverado Senior Living, which involved 77 participants across eight memory care communities in southern California, support the hypothesis that exposure to sufficient daylight indoors can help reduce symptoms of depression in people living with dementia in long-term care environments (Konis, Mack & Schneider, 2018).

This article is intended to serve as a call to action for the seniors housing industry to appropriately value the daylighting of buildings. In the following sections, we report on new health-based lighting metrics and rating systems, in situ lighting measurement techniques, and software-based simulation approaches that can be used to identify “circadian effective” zones in buildings, as well as to identify zones of “biological darkness,” which may be adequate for human visual needs but are insufficient for effective circadian stimulus. We conclude with lessons and recommendations synthesized from our work, which have the potential to inform key decisions related to building design, operations, renovation, and asset valuation.

Review of Emerging Metrics and Rating Systems

Ensuring that care environments deliver effective lighting to meet the nonvisual lighting needs of residents and staff first requires the development of new performance criteria, measurement tools, and evaluation techniques. Historically, recommended lighting practices for senior living environments have focused on lighting of spaces to address important visual lighting needs such as wayfinding, fall avoidance, visual comfort, and adequate light levels to support visual tasks performed by seniors with age-related vision loss. In the past several decades, these goals were supplemented with additional requirements for energy efficiency. In the past few years, consensus-based guidance documents prepared by the Illuminating Engineering Society, such as Lighting and the Visual Environment for Seniors and the Low Vision Population (2016) and Lighting for Hospitals and Healthcare Facilities (2016), have begun to incorporate language addressing the additional goal of providing adequate lighting for nonvisual lighting needs. However, there remains no specific lighting requirements to promote healthy circadian entrainment for seniors.

Because the circadian system responds to light differently than does the visual system, the conventional lighting metric of illuminance (lux) is problematic for use in measuring and evaluating nonvisual lighting conditions. To address this problem, the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute in Troy, New York, developed a new lighting metric called circadian stimulus (CS), which is proposed for use in specifying lighting for human nonvisual lighting needs such as circadian entrainment and alertness. The CS of a given light source can be calculated using the LRC’s publicly available CS calculator and inputting the SPD of the light source. The LRC recommends exposure to a CS of 0.3 or greater at the eye (equivalent to 180 lux from daylight) for a minimum of 1 hour in the early part of the day (Figueru et al., 2016).

Another circadian lighting metric, entitled equivalent melanopic lux (EML), based on the work of Enezi and colleagues (2011) and Lucas and colleagues (2014), has been implemented in the WELL Building Standard. The WELL Building Standard is a building certification and rating system administered by the International WELL Building Institute (IWBI). The IWBI (2018) states that the WELL Building Standard is “the premier standard for buildings, interior spaces and communities seeking to implement, validate and measure features that support and advance human health and wellness.” Compliance with the WELL Building Standard requires that building occupants be provided with exposure to different minimum EML levels...
depending on the use of the space. For example, for living environments, the standard requires lighting capable of delivering a minimum of 200 EML at the eye at a distance of 1.2 meters (4 feet) from the floor. It should be noted that 200 EML is often easily achievable in effectively daylit spaces. At present, the WELL Building Standard does not have a circadian lighting requirement specifically tailored to senior living environments, where greater light stimulus may be required because of age-related health effects of the eye or the unique needs of people living with dementia. These examples show that indoor lighting conditions are emerging as a measurable factor that will be used to evaluate the quality of care provided in seniors housing.

In Situ Lighting Measurement and Evaluation

In addition to the development of new metrics and performance targets for human nonvisual lighting needs, new measurement approaches are needed to evaluate nonvisual lighting conditions in seniors housing environments. A measurement-based understanding of indoor lighting conditions can help identify the circadian effective areas within existing rooms, as well as zones of biological darkness, where lighting may be sufficient for visual tasks but insufficient for effective circadian stimulus or alertness. Two general approaches are available: (1) the collection of personalized light exposures using “wearable” light sensors calibrated to the human circadian response; and (2) the collection of in situ measurements taken from locations representative of the view directions of building occupants.

The following example presents one approach to in situ lighting measurement (Konis, 2018). The approach was developed to evaluate the circadian effectiveness of indoor lighting conditions in dementia care communities. A digital spectrometer (Figure 1) mounted on a mobile cart was used to take SPD measurements. Figure 2 shows the measured SPD of eye-level light exposure for an indoor space where daylighting is provided by both windows and skylights (May 8, 8:37 a.m., clear sky conditions). Figure 3 shows the eye-level light exposure for a different indoor space without daylighting, where lighting is provided by electrical lighting. In both figures, the solid blue curve represents the human circadian response (C-lambda), and the dashed curve represents the human visual response (V-lambda). Analysis of the two SPDs to calculate EML shows that the circadian-effective light stimulus in the daylit space (195 EML) is about 5.5 times greater than the space without daylight (35 EML). In the in situ lighting study, the cart was used to take 579 SPD measurements in nine daylit and four non-daylit spaces over a period of 13 weeks (from February 13, 2017, to May 10, 2017). Analysis of spectrometer measurements revealed significant benefits of daylit spaces in circadian stimulus potential and also the potential to increase the alertness level. For example, under clear sky conditions during the morning (8:00 – 10:00 a.m.), daylit spaces resulted in three to six times greater circadian stimulus potential compared with the non-daylit spaces. However, individual outcomes depended on the distance from windows and view orientation within the space. Findings from the study suggest that regular access to daylit areas in the morning, specifically within 3 meters from windows, can significantly increase the level of circadian-effective light stimulus and thereby aid in the maintenance of healthy circadian entrainment and attainment of higher levels of alertness (Konis, 2018).

Simulation-Based Evaluation Methods

Software-based lighting simulation tools, traditionally used for photorealistic architectural visualizations and renderings of indoor spaces, can also be used to understand “when” and “where” spaces are effectively daylit throughout the year to meet human non visual lighting needs. The following example presents a simulation approach that...
builds on earlier work by Konis (2017) to quantify the daylighting performance of indoor spaces with regard to human nonvisual needs for light. The approach uses basic architectural building information, window and surface optical properties, and detailed climatic information from local weather data. Specialized software (Roudsari & Pak, 2013) and the lighting simulation engine Radiance (Ward, 1994) are then used to calculate the daylight reaching a grid of sensor points within the space. These sensor points are distributed in a radial pattern to reflect the range of possible view directions of occupants within the space. Unlike traditional calculation procedures used to determine the light output of steady-state electrical lighting systems, which require only a single simulation, indoor daylight levels are constantly changing in response to daily and seasonal variations in sun position and atmospheric conditions. Therefore, hourly or even subhourly simulations using local weather data can be performed for each day of the year to account for the climate-based variability of daylight. Another notable difference in this approach is that, identical to the in situ measurement practices discussed earlier, the light stimulus is measured vertically (e.g., in the gaze direction) at seated eye height in the space rather than on a horizontal work surface, which is typical of conventional lighting design practice. Finally, the approach uses specialized software components developed by Inanici and colleagues (2015) to quantify light in units of EML, rather than in photopic illuminance (lux), to account for the spectral sensitivity of the human circadian response.

The following figures present a simple example of how this approach can be used to evaluate the daylighting performance of a senior living space by quantifying the level of improvement that could be achieved from the addition of skylights of various sizes as a retrofit strategy. The baseline model for this example represents a 36 feet (11 meters) wide by 23 feet (7 meters) deep activity room with south-facing windows located in Los Angeles county. The window-to-wall ratio (i.e., the ratio of window area to wall area) is 0.25. Figure 4 shows the basic room geometry and the grid of vectors, which indicate each view direction where daylight stimulus is calculated at each hourly (or subhourly) time over the year. Note that in the following analysis, light output from electrical lighting fixtures in the space is not included to assess the daylighting potential of the space exclusively.

A false-color scale is used to indicate the metric circadian frequency (CF), which is the percentage of the analysis period (e.g., from 7 a.m. to 10 a.m. daily over the year) during which each view direction meets or exceeds a recommended light stimulus threshold (Figure 5). In this example, a minimum of 250 EML was specified as the threshold (see earlier discussion in Review of Emerging Metrics and Rating Systems). The CF metric ranges from 0% (stimulus never present) to 100% (stimulus present for the entire analysis period). Warmer colors indicate better performance, and cooler colors indicate poorer performance. For example, view locations with a red vector indicate that a daylight stimulus $\geq$ 250 EML is present for
nearly the entire year during the period of analysis. Such locations can be considered circadian effective and will require little to no light output from electrical lighting to supplement the available daylight stimulus. Alternatively, locations that have only blue vectors can be considered biologically dark and will require the use of a circadian-effective electrical lighting system to ensure an effective light stimulus throughout the year. Intermediate colors (e.g., yellow) indicate locations where daylight is often sufficient, but where supplemental electrical lighting will be needed for a portion of the year.

In a design or retrofit scenario, there are two primary goals. The first is to maximize the number of views (see arrows in Figure 4) from a particular location that achieve a high level of CF. Achieving this is important to ensure that occupants are not required to face in a single direction, which would limit effective use of the space for social activities. The second objective is to maximize the number of locations within the space that achieve at least one view with a high level of CF (e.g., CF ≥ 80%). This objective is important because it increases the area within the space where residents have access to an effective daylight stimulus. An additional objective may be to comply with future health-based lighting requirements. For example, a regularly occupied space may need to be designed to deliver minimum light stimulus levels during a portion of the day across a minimum amount of floor area. To measure “performance” in regard to these three objectives, three summary indicators were developed: (1) average circadian frequency (CFAvg), which is the average of all individual vector CF scores and ranges from 0% to 100%; (2) average maximum circadian frequency (Max. CFAvg), which is the average of the maximum CF score achieved for each grid point location, and it also ranges from 0% to 100%; and (3) area above 250 EML (Area. Abv\text{250 EML}), which quantifies the amount of floor area (0% to 100%) where an effective daylight stimulus is present during the morning for at least 80% of the year. Figures 6 through 9 show the increased frequency and spatial availability of a circadian-effective light stimulus compared with the baseline model (Figure 5) as the ratio of skylight to roof area is incrementally increased (from 0.1 to 0.4). Summary performance data are presented in Table 1. In Figures 5 through 9, a false-color mapping ranging from blue (least frequent) to red (most frequent) is used to indicate the CF outcomes ranging from 0% to 100% obtained for each view direction. The false-color scale shown in Figure 5 indicates the relationship between each color and the corresponding CF percentage, and is applicable to all subsequent figures.

LESSONS AND RECOMMENDATIONS

This review of recent research related to light and health offers a number of practical lessons and recommendations for the seniors housing industry to leverage the built environment as a nonpharmacological approach to improving care.

Figure 4. Example of South-Facing Activity Room Showing Location of Measurement Vectors

Figure 5. Plan View of Activity Room Baseline Model Showing Level of Indoor Daylight Stimulus Achieved by South-Facing Windows (No Skylights)

Without skylights, only locations adjacent to windows achieve CF scores above 20%, indicating that the majority of the space will require electrical lighting during the daytime to ensure effective circadian stimulus.
Figure 6. Plan View of Activity Room With the Addition of Skylights (0.1 Ratio)

White rectangles indicate the location of skylights above the space. The addition of relatively small skylights increases the frequency of an effective circadian stimulus from daylight; however, the CF scores for the majority of views remain at 50% (yellow) or below.

Figure 7. Plan View of Activity Room With the Addition of Skylights (0.2 Ratio)

Increasing the size of skylights results in more locations and view directions that have a CF greater than 50%, indicating that the space could function without the use of supplemental electrical lighting for a significant portion of the analysis period (7 to 10 a.m. annually).

Figure 8. Plan View of Activity Room With the Addition of Skylights (0.3 Ratio)

Further increasing the size of skylights results in 32% of all views with a CF score above the threshold proposed by the authors as circadian effective (orange-colored arrows), indicating that these locations receive sufficient daylight stimulus throughout the year.

Figure 9. Plan View of Activity Room With the Addition of Skylights (0.4 Ratio)

Further enlargement of the skylight area increases the percentage of locations and views above the circadian effective threshold to 79%, indicating that 79% of the space is effectively daylit.
1. Conduct lighting audits to identify circadian effective zones and zones that are biologically dark.

Operators of memory care communities (and senior living environments in general) should conduct lighting audits of all regularly occupied spaces to collect baseline measurements of typical eye-level lighting conditions experienced by residents. Baseline measurements can be analyzed using emerging metrics such as CS and EML to determine if the current lighting conditions are sufficient for effective circadian stimulus. Zones in which light is insufficient can be labeled biologically dark and identified as areas of the building that should be avoided for long-term use during daylight hours (and prioritized for daylighting and/or electrical lighting retrofits). Zones in which lighting is found to have sufficient circadian stimulus, such as perimeter daylight areas, can be labeled circadian effective and prioritized for daytime use. Caregivers should ensure that all residents are routinely able to access circadian effective zones of the facility during daylight hours, with at least 2 hours of exposure during the morning circadian resetting period (6:00 to 10:00 a.m.) each day. Based on preliminary measurements, we found that a distance up to 3 meters (10 feet) from windows was sufficient for providing effective levels of circadian light stimulus for views directly facing or parallel to windows. However, the general boundaries of circadian effective and biologically dark zones should be confirmed at each building using physical measurements and/or simulation-based lighting analysis tools.

2. Standard light sensors are not appropriate for measuring circadian light.

Because conventional photometric sensors such as the hand-held illuminance meters used by lighting professionals are biased toward longer-wavelength light sources, specialized devices should be used when conducting lighting audits. Devices capable of measuring and reporting the full SPD of light sources, or devices specifically calibrated to the spectral sensitivity of the human circadian system should be used. The mobile cart-mounted spectrometer shown in Figure 1 illustrates one approach developed to address this issue.

3. Incorporate daylight analysis in the design and renovation of seniors housing.

Software-based daylight analysis tools are emerging that can be used to understand when and where interior daylight is sufficient for effective circadian stimulus. Such tools can be used by the project team before construction to optimize the effectively daylit area of the design, while balancing additional concerns such as functional efficiency, program requirements, and cost. Analysis also can be performed on an existing portfolio of buildings to identify and map circadian effective and biologically dark areas to inform decision-making regarding their use or need for renovation.

4. Ensure effective use of available daylight.

The presence of a window in a room does not ensure that the room is sufficiently daylit to support healthy circadian entrainment. Many factors can reduce daylight availability in a space. The use of manually operated interior shading devices can significantly reduce the effective daylight area. Similarly, window tinting and solar control films can permanently reduce daylighting potential. Designers should specify spectrally selective, high visible light transmittance glass and should design windows to effectively daylight the regularly occupied spaces of the community. Where glare and solar overheating are a concern, automated shading systems can be installed to control these sources of discomfort when present.

5. Use appropriate electrical lighting technologies to supplement available daylight rather than replace it.

While emerging LED light sources and internet-enabled control technologies present a promising means to improve indoor lighting conditions for seniors, their configuration and operation should be designed to supplement available daylight rather than serve as a replacement.
6. Improve lighting for staff and caregivers to improve care for residents.

The same consideration given to the daylighting of regularly occupied spaces for seniors should be given to those occupied by caregivers and other staff.

7. Appropriately value seniors housing with good indoor daylighting.

Decision-making for capital projects is often based on an analysis of first costs, discounting the potential cost benefits that may occur over the project life-cycle due to improved health outcomes, reduced reliance on drug treatments, or both. Evaluation techniques are emerging that are capable of differentiating the performance of senior living environments based on indoor light exposure. Performance data (such as results from lighting audits or lighting simulation studies) should be taken into consideration when evaluating the cost feasibility of new projects (e.g., new construction, renovation, expansion, replacement) that may entail a higher initial cost but have the potential for improved health outcomes.

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Relationships Between Residential Care Community Characteristics and Overnight Hospital Stays and Readmissions: Results From the National Study of Long-Term Care Providers

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ABSTRACT

The Problem: Hospitalizations and subsequent readmissions can produce significant challenges when trying to reduce costs and improve quality of care. This study describes hospitalizations and readmissions using residential care community data from the 2012 National Study of Long-Term Care Providers.

The Resolution: About 61.0% of residential care communities had hospitalizations, and among these communities, 39.3% had readmissions. Residential care communities in the Northeast were more likely to have had hospitalizations and readmissions. Residential care communities located in a continuing care retirement community (CCRC) had a lower likelihood of hospitalizations, and communities that provided therapeutic services had a lower likelihood of readmissions.

Tips for Success: An association with a CCRC and provision of therapeutic services were found to be protective against hospitalizations and readmissions, respectively.

Keywords: Long-term services and supports, residential care, hospitalizations, readmissions, National Study of Long-Term Care Providers
INTRODUCTION

Overnight hospital stays and subsequent readmissions can produce significant challenges when trying to reduce costs and improve quality of care. Hospitalizations accounted for one-third of total health care spending in the United States in 2014 (McDermott, Elixhauser, & Sun, 2017). The aggregate cost for 35.6 million hospital stays was $81.4 billion (Torio & Moore, 2016). Overnight hospital stays and readmissions can result in trauma or complications from medical treatment, and may decrease quality of care and quality of life (Becker, Boaz, Andel, & DeMuth, 2012; McKinney & Melby, 2002). Hospitalizations can increase the risk of functional decline, falls, and nursing home admission (Friedman, Mendelson, Bingham & McCann, 2008). The increased risks associated with hospitalizations are of particular concern to residents of residential care communities.

Assisted living and similar residential care communities, which provide services to individuals who cannot live independently but generally do not require the skilled level of care provided by nursing homes, are an important provider of long-term supports and services (Golant, 2004). In 2012, 22,200 residential care communities in the United States provided care to 713,300 residents (Harris-Kojetin, Sengupta, Park-Lee, & Valverde, 2013).

Only a handful of studies have looked at relationships between hospitalizations and the organizational and resident characteristics in residential care communities (Becker et al., 2012; Hogan et al., 2014; Maxwell et al., 2015; Sloane et al., 2005; Stearns et al., 2007). One study found that residents in chain-affiliated residential care communities had more hospitalizations, while those in continuing care retirement communities (CCRCs) had fewer (Hedrick et al., 2009). This study also found that the presence of nursing staff in residential care was linked to lower hospitalizations. Three studies that examined resident characteristics and hospitalizations found that residents with a diagnosis of depression had more hospitalizations (Becker et al., 2012; Hedrick et al., 2009; Wheaton, Ford, Cunningham & Croft, 2015). To date, studies on hospitalizations in residential care have focused on resident-level rates rather than rates for the community as a whole.

One study that linked hospitalizations and readmissions in residential care found that in 2012, 60% of residential care communities had at least one resident with an overnight hospital stay discharge within a 90-day period, and in 39% of these communities, at least one resident was readmitted to a hospital within 30 days of the discharge (Caffrey, Harris-Kojetin, Rome, & Sengupta, 2014). However, to our knowledge, no studies have examined the relationships between organizational and resident characteristics of residential care communities and readmissions.

To build on existing studies and fill potential knowledge gaps in the literature, this study used survey data from the 2012 National Study of Long-Term Care Providers (NSLTCP) to examine discharges from overnight hospital stays and subsequent readmissions at the residential care community level. We also studied the relationships between residential care community–level hospitalizations and readmissions and the organizational and resident case-mix characteristics of these communities.

METHODS

Data Sources

The National Center for Health Statistics (NCHS) conducted the 2012 NSLTCP. Survey data on residential care communities from the 2012 NSLTCP were used for this analysis. To be eligible for the study, a residential care community had to have four or more beds; serve primarily an adult population; have at least one resident at the time of the interview; be licensed, registered, listed, certified, or otherwise regulated by the state to provide room and board with at least two meals a day; provide around-the-clock on-site supervision; and offer help with personal care or health care–related services. Nursing homes and providers exclusively serving adults with severe mental illness or intellectual and developmental disabilities were excluded. Of 39,779 residential care communities in the sampling frame, 11,690 were sampled and stratified by state and bed size. Data were collected through three modes: self-administered hard-copy, self-administered web, and computer-assisted telephone interviewing. The questionnaire was completed for 4,694 communities, for a weighted response rate of 55.4%.
The survey used a sample of communities from states that had enough residential care communities to produce reliable state estimates and a census of residential care communities in states that did not have enough communities to produce reliable state estimates from a sample. As a result, the estimates were subject to sampling variability and variability due to nonresponse.

Statistical analysis weights were computed as the product of four components: the sampling weight (only for residential care communities in states where they were sampled), adjustment for unknown eligibility status, adjustment for nonresponse, and a smoothing factor. For sampled states in the residential care community component, the sampling weights reflected the probability of selection for each selected facility. The sampling weight for each facility in the sample was the reciprocal of its probability of selection. For all states in which a census was used, the probability of selection was equal to 1. To account for residential communities of unknown eligibility status, the weights of the facilities with known eligibility were adjusted upward based on the proportion of facilities that were actually known to be eligible. The adjustment for unknown eligibility was done in SUDAAN, using a constrained logistic model to predict known eligibility and to compute the unknown eligibility adjustment factors for the weights. More detailed information on the study design and data collection methods is available in the NSLTCP Survey Methodology and Documentation and readme files (NCHS, 2013a; NCHS, 2013b).

Study Population

Overnight hospitalizations analyses. The bivariate and multivariate analyses of overnight hospitalizations included 3,853 residential care communities (82%) of the 4,694 communities in the 2012 NSLTCP. Weighted, this represents 17,920 communities. Communities were excluded if they had missing data on overnight hospital stays or on any of the independent variables. We also excluded residential care communities if they reported having more residents with hospital stays or resident case-mix characteristics than the total number of residents reported because these responses are thought to be erroneous.

Readmissions analyses. The bivariate and multivariate analyses of hospital readmissions included 2,652 communities (99%) of the 2,669 communities in this study that reported having at least one resident with a discharge from an overnight hospital stay in the 90 days preceding the survey. Weighted, this represents 10,865 communities. We excluded communities for which readmissions or independent variable data were missing. Also excluded were communities that reported having more residents with readmissions than residents with overnight hospital stays because these responses are thought to be erroneous.

Dependent Variables

Any overnight hospital stays. Overnight hospital stays are defined as the number of current residents discharged from an overnight hospital stay in the 90 days before the survey. Trips to the emergency department that did not result in a discharge from an overnight hospital stay were excluded. This study focused on residential care communities that had at least one resident with a discharge from an overnight hospital stay within a 90-day period and compared them to residential care communities that did not have any residents with a discharge.

Any readmissions. Readmissions are defined as the number of current residents readmitted to the hospital for an overnight stay within 30 days of an overnight hospital stay discharge. This question was asked when a residential care community reported at least one resident with a discharge from an overnight hospital stay in the 90 days before the survey. For the readmission analyses, we focused on residential care communities that had at least one resident who was readmitted to the hospital within 30 days of a hospital discharge and compared them to residential care communities that did not.

Independent Variables

Organizational and resident case-mix characteristics. The independent variables included organizational and resident case-mix characteristics used in prior research on hospitalizations or readmissions in residential care at the resident level (Becker et al., 2012; Hedrick et al., 2009; Hogan et al., 2014; Maxwell et al., 2015; Sloane et al., 2005; Stearns et al., 2007; Weiss & Elixhauser, 2014; Wheaton et al., 2015). The organizational characteristics
included geographic characteristics, ownership status, chain affiliation status, having been in operation 10 or more years, use of electronic health records (EHRs), staffing variables, and offering any therapeutic and skilled nursing services. Staffing variables consisted of a categorical variable indicating (1) communities that had both registered nurse (RN) and licensed practical or vocational nurse (LPN/LVN) employee full-time equivalents (FTEs); (2) communities that had only RN employee FTEs; (3) communities that had only LPN/LVN FTEs; and (4) communities that had no RN or LPN/LVN FTEs. We used a categorical variable for licensed nursing staff based on a study conducted by Hedrick and colleagues (2009). Aide hours per resident per day (HPRDs) were computed by multiplying the number of FTE aide employees by 35 hours, and then dividing the product by the number of residents and by 7 days. The staffing variables did not include contract staff. Geographic characteristics of residential care communities included metropolitan statistical area (MSA) and region. We controlled for bed size in the multivariate modeling.

Resident case-mix characteristics included the percentage of residents who were non-Hispanic white, female, aged 85 and older, diagnosed with Alzheimer's disease or other dementias, and diagnosed with depression, as well as the percentage needing any assistance with bathing and any assistance with eating. Needing any assistance with bathing or eating included needing any help or supervision from another person or the use of special equipment to perform these activities. The resident case-mix characteristics were all continuous measures calculated by dividing the number of current residents with the particular characteristic in the residential care community by the total number of current residents in the residential care community.

Because this analysis included a large number of independent variables, an assessment was done to look for multicollinearity. Each independent variable was regressed on all the other independent variables, and the \( R^2 \) estimate was noted. Most of these \( R^2 \) estimates were 0.20 or below, a couple were in the 0.20 to 0.29 range, and one estimate was 0.47. No multicollinearity was found. Frequency distributions for the variables in this study are included in Appendix A in the Technical Appendix.

**Missing Data**

The weighted percentage of cases with missing data for variables ranged from 0.2% for chain affiliation to 9.0% for EHRs. Cases with missing data on either of the dependent variables or with missing data on any of the independent variables were excluded from all analyses.

When comparing the excluded cases with the included cases for discharges from overnight hospital stays, the excluded cases were significantly different for a few of the independent variables. A statistically significantly greater (\( p < .05 \)) percentage of the excluded cases were located in an MSA (84.0% vs. 80.3%), and a smaller percentage provided therapeutic services (25.1% vs. 31.9%). The excluded cases in the hospitalizations analyses also had more beds (41.5 vs. 37.6), fewer aide HPRDs (1.90 vs. 2.34), and a smaller percentage of non-Hispanic white residents (79.9% vs. 83.7%) than did the included cases. For the readmissions analyses, the excluded cases had a statistically significantly smaller (\( p < .05 \)) percentage of non-Hispanic whites (82.6% vs. 86.2%) and a larger percentage of residents needing help with the bathing activities of daily living (72.9% vs. 68.6%).

**Data Analyses**

For all analyses, the unit of analysis is the residential care community, not the resident. In the bivariate analyses, residential care communities with any hospitalizations and any readmissions were compared to residential care communities without hospitalizations and without readmissions, respectively. The differences between the two types of residential care communities were evaluated using \( \chi^2 \) tests and \( t \)-tests. If \( \chi^2 \) tests were statistically significant, a post hoc \( t \)-test procedure was used to make pairwise comparisons. Statistically significant results from the post hoc procedure are reported. All significance tests were two-sided using \( p < .05 \) as the level of significance.

We used logistic regression analyses to examine the extent to which organizational and resident case-mix characteristics were associated with residential communities having residents with overnight hospital stays and residents with readmissions. The dependent variables were dichotomized as any residents versus no residents. Sensitivity analyses were performed in which
the dependent variables were converted into categorical variables in different ways. In addition to the above method (any versus none), models with the following categorizations of the dependent variables were also estimated: (1) at or below the average percentage of residents versus above the average percentage of residents; and (2) at or below the average percentage versus above average percentage to two times the average percentage and two times the average percentage and higher. Overall, the results were similar across the different models. The models using the “any versus none” categorization of the dependent variables had the best fit, with \( R^2 \) of 0.22 and 0.13. SAS-callable SUDAAN Version 11.0.0 statistical package (RTI International, 2012) and STATA version 14 (StataCorp, 2015) were used to conduct descriptive and multivariate analyses.

RESULTS

Overnight Hospital Discharges and Readmissions

Among residential care communities, 61.0% had at least one resident with a discharge from an overnight hospitalization within a 90-day period. When comparing communities with and without overnight hospitalizations across the categories of the organizational characteristics variables, having at least one resident with an overnight hospital stay discharge in a 90-day period was more prevalent among communities that were nonprofit compared to for-profit (71.1% vs. 58.4%), chain affiliated compared to not chain affiliated (66.9% vs. 52.8%), in operation 10 years or more compared to less than 10 years (66.3% vs. 52.6%), not located in an MSA compared to located in an MSA (65.4% vs. 60.0%), located in the Northeast compared to the West (79.7% vs. 49.3%), using EHRs compared to not using them (73.1% vs. 58.1%), had both RN and LPN employees compared to no RN or LPN employees (78.0% vs. 43.9%), and provided any skilled nursing services compared to not providing such services (65.7% vs. 58.0%) (Table 1).

Communities that had at least one resident with a hospital discharge in a 90-day period had fewer aide HPRDs (mean = 2.2 hours) than communities with no hospital-stay discharges (mean = 2.6 hours). Communities with at least one resident with a discharge from an overnight hospital stay in a 90-day period had a greater percentage of residents who were non-Hispanic white (mean = 86.2%), female (mean= 70.5%), and aged 85 and older (mean = 47.5%) and a smaller percentage of residents who were diagnosed with Alzheimer’s disease or other dementias (mean = 42.2%) and who needed assistance with bathing (mean = 68.6%) or eating (mean = 23.6%) compared to communities with no overnight hospital-stay discharges in a 90-day period.

Overall, among residential care communities with at least one resident with a 90-day overnight hospital discharge, 39.3% had at least one resident who was readmitted within a 30-day period. When comparing communities with and without 30-day readmissions across the categories of the organizational characteristics variables, having at least one resident with a readmission was more prevalent in residential care communities that were chain affiliated compared to not being chain affiliated (43.0% vs. 32.8%), part of a CCRC compared to not being part of one (43.3% vs. 37.1%), in operation 10 years or more compared to less than 10 years (43.1% vs. 31.6%), located in an MSA compared to not being located in an MSA (40.5% vs. 34.9%), located in the Northeast compared to the West (54.1% vs. 32.4%), and using EHRs compared to not using them (45.6% vs. 37.3%), as well as in residential care communities that had LPN employees only compared to no RN or LPN employees (51.7% vs. 26.0%) and that did not provide any therapeutic services compared to providing them (41.1% vs. 35.5%) (Table 2).

Communities that had at least one resident with a hospital readmission within 30 days of a discharge had fewer aide HPRDs (mean = 1.9 hours) than communities with no hospital readmissions (mean = 2.3 hours). Communities with at least one resident with a readmission within 30 days of a hospitalization discharge had a smaller percentage of residents diagnosed with Alzheimer’s disease or other dementias (39.3%) and needing assistance with bathing (64.6%) or eating (19.6%) compared to communities without 30-day hospital readmissions.
Table 1. Residential Care Communities Overall and Comparing Those With at Least One Resident With a 90-Day Overnight Hospital Stay Discharge to Those With No Residents With a 90-Day Hospital Discharge, by Operational and Resident Case-Mix Characteristics: United States, 2012

<table>
<thead>
<tr>
<th>Organizational Characteristics</th>
<th>90-Day Overnight Hospital Stay Discharges</th>
<th></th>
<th></th>
<th>Significance</th>
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<td></td>
<td>At least one resident</td>
<td>No residents</td>
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<tr>
<td></td>
<td>Percent (Standard Error)</td>
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<tr>
<td>Nonprofit/government ownership</td>
<td>61.0 (2.0)</td>
<td>39.0 (2.0)</td>
<td>p &lt; .001</td>
<td></td>
</tr>
<tr>
<td>For-profit ownership</td>
<td>58.4 (1.3)</td>
<td>41.6 (1.3)</td>
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</tr>
<tr>
<td>Chain affiliated</td>
<td>66.9 (1.5)</td>
<td>33.1 (1.5)</td>
<td>p &lt; .001</td>
<td></td>
</tr>
<tr>
<td>Not chain affiliated</td>
<td>52.8 (1.9)</td>
<td>47.2 (1.9)</td>
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<tr>
<td>Part of a continuing care retirement community (CCRC)</td>
<td>60.4 (1.9)</td>
<td>39.6 (1.9)</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Not part of a CCRC</td>
<td>61.4 (1.5)</td>
<td>38.6 (1.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in Medicaid</td>
<td>61.6 (1.5)</td>
<td>38.4 (1.5)</td>
<td>n.s.</td>
<td></td>
</tr>
<tr>
<td>Does not participate in Medicaid</td>
<td>60.5 (1.7)</td>
<td>39.5 (1.7)</td>
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<tr>
<td>≥ 10 years in operation</td>
<td>66.3 (1.3)</td>
<td>33.7 (1.3)</td>
<td>p &lt; .001</td>
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<tr>
<td>&lt; 10 years in operation</td>
<td>52.6 (2.1)</td>
<td>17.4 (2.1)</td>
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<tr>
<td>Located in metropolitan statistical area (MSA)</td>
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<td>40.0 (1.3)</td>
<td>p &lt; .05</td>
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<tr>
<td>Not located in MSA</td>
<td>65.4 (2.0)</td>
<td>34.7 (2.0)</td>
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<tr>
<td>Region</td>
<td></td>
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<td>p &lt; .001</td>
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<td>Northeast</td>
<td>79.7 (1.8)</td>
<td>20.3 (1.8)</td>
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<tr>
<td>Midwest</td>
<td>68.2 (1.8)</td>
<td>31.8 (1.8)</td>
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<tr>
<td>South</td>
<td>63.1 (2.0)</td>
<td>36.9 (2.0)</td>
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<td></td>
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<tr>
<td>West</td>
<td>49.3 (2.2)</td>
<td>50.7 (2.2)</td>
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<tr>
<td>Uses electronic health records (EHRs)</td>
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<td>26.9 (2.3)</td>
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<tr>
<td>Does not use EHRs</td>
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<td>42.0 (1.3)</td>
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<tr>
<td>Nursing</td>
<td></td>
<td></td>
<td>p &lt; .001</td>
<td></td>
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<tr>
<td>Registered nurse (RN) employees only</td>
<td>58.6 (2.6)</td>
<td>41.4 (2.6)</td>
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<tr>
<td>Licensed practical nurse (LPN) employees only</td>
<td>72.2 (2.5)</td>
<td>27.8 (2.5)</td>
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<tr>
<td>RN and LPN employees</td>
<td>78.0 (1.5)</td>
<td>22.0 (1.5)</td>
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<tr>
<td>No RN or LPN employees</td>
<td>43.9 (2.3)</td>
<td>56.1 (2.3)</td>
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<tr>
<td>Mean number of aide hours per resident per day</td>
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<td>2.6 (0.1)</td>
<td>p &lt; .001</td>
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</tr>
<tr>
<td>Provided by employees only or employees and others</td>
<td>61.4 (2.1)</td>
<td>38.6 (2.1)</td>
<td>n.s.</td>
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<tr>
<td>Not provided or provided by referral only</td>
<td>60.9 (1.4)</td>
<td>39.1 (1.4)</td>
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<tr>
<td>Skilled nursing services</td>
<td></td>
<td></td>
<td>p &lt; .001</td>
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<tr>
<td>Provided by employees only or employees and others</td>
<td>65.7 (1.7)</td>
<td>34.4 (1.7)</td>
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<tr>
<td>Not provided or provided by referral only</td>
<td>58.0 (1.6)</td>
<td>42.0 (1.6)</td>
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<tr>
<td>Resident case-mix characteristics</td>
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<tr>
<td>Mean percentage non-Hispanic white</td>
<td>86.2 (0.8)</td>
<td>79.7 (1.4)</td>
<td>p &lt; .001</td>
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<tr>
<td>Mean percentage female</td>
<td>70.5 (0.6)</td>
<td>66.5 (1.3)</td>
<td>p &lt; .05</td>
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<tr>
<td>Mean percentage aged 85 and older</td>
<td>47.5 (0.8)</td>
<td>43.0 (1.5)</td>
<td>p &lt; .05</td>
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<tr>
<td>Mean percentage diagnosed with Alzheimer’s disease or other dementia</td>
<td>42.2 (0.9)</td>
<td>47.8 (1.6)</td>
<td>p &lt; .05</td>
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<tr>
<td>Mean percentage diagnosed with depression</td>
<td>28.0 (0.8)</td>
<td>26.9 (1.3)</td>
<td>n.s.</td>
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<tr>
<td>Mean percentage needing any assistance with bathing</td>
<td>68.6 (0.8)</td>
<td>77.0 (1.2)</td>
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<tr>
<td>Mean percentage needing any assistance with eating</td>
<td>23.6 (0.8)</td>
<td>36.1 (1.4)</td>
<td>p &lt; .001</td>
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</table>

Source: National Center for Health Statistics (2013a and 2013b).
Note: n.s. = not significant.
Table 2. Residential Care Communities Overall and Comparing Those With At Least One Resident With a 30-Day Hospital Readmission to Those Without any Residents With a 30-Day Readmission, by Operational and Resident Case-Mix Variables: United States, 2012

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<td></td>
<td>At least one resident</td>
<td>No resident</td>
<td>Significance</td>
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<tr>
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<tr>
<td>Nonprofit/government ownership</td>
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<td>n.s.</td>
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</tr>
<tr>
<td>For-profit ownership</td>
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<td>58.3 (2.2)</td>
<td>n.s.</td>
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<tr>
<td>Chain affiliated</td>
<td>43.0 (1.6)</td>
<td>57.0 (1.6)</td>
<td>p &lt; .001</td>
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<td>67.2 (2.1)</td>
<td>p &lt; .05</td>
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<tr>
<td>Part of a continuing care retirement community (CCRC)</td>
<td>43.3 (2.2)</td>
<td>56.7 (2.2)</td>
<td>p &lt; .05</td>
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<td>Not part of a CCRC</td>
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<td>62.9 (1.6)</td>
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<tr>
<td>Participates in Medicaid</td>
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<td>61.3 (1.7)</td>
<td>n.s.</td>
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<tr>
<td>Does not participate in Medicaid</td>
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<td>60.0 (1.9)</td>
<td>n.s.</td>
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<td>≥ 10 years in operation</td>
<td>38.7 (1.7)</td>
<td>61.3 (1.7)</td>
<td>n.s.</td>
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<td>&lt; 10 years in operation</td>
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<td>68.4 (2.3)</td>
<td>p &lt; .001</td>
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<td>Located in metropolitan statistical area (MSA)</td>
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<td>59.5 (1.5)</td>
<td>p &lt; .05</td>
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<td>Not located in MSA</td>
<td>34.9 (2.1)</td>
<td>65.1 (2.1)</td>
<td>p &lt; .05</td>
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<td>Region</td>
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<td>Northeast</td>
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<td>Midwest</td>
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<td>South</td>
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<td>58.0 (2.4)</td>
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<td>54.4 (2.6)</td>
<td>p &lt; .05</td>
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<tr>
<td>Does not use EHRs</td>
<td>37.3 (1.4)</td>
<td>62.7 (1.4)</td>
<td>p &lt; .05</td>
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<tr>
<td>Nursing</td>
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<tr>
<td>Registered nurse (RN) employees only</td>
<td>31.9 (2.7)</td>
<td>68.1 (2.7)</td>
<td>p &lt; .001</td>
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<td>Licensed practical nurse (LPN) employees only</td>
<td>51.7 (2.9)</td>
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<td>RN and LPN employees</td>
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<td>53.6 (1.9)</td>
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<td>No RN or LPN employees</td>
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<td>74.1 (2.8)</td>
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<tr>
<td>Mean number of aide hours per resident per day</td>
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<td>2.3 (0.1)</td>
<td>p &lt; .001</td>
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<td>Any therapeutic services</td>
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<tr>
<td>Provided by employees only or employees and others</td>
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<td>64.5 (2.0)</td>
<td>p &lt; .05</td>
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</tr>
<tr>
<td>Not provided or provided by referral only</td>
<td>41.1 (1.6)</td>
<td>58.9 (1.6)</td>
<td>p &lt; .05</td>
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<tr>
<td>Skilled nursing services</td>
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<td></td>
</tr>
<tr>
<td>Provided by employees only or employees and others</td>
<td>39.2 (1.8)</td>
<td>60.8 (1.8)</td>
<td>n.s.</td>
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<tr>
<td>Not provided or provided by referral only</td>
<td>39.4 (1.8)</td>
<td>60.6 (1.8)</td>
<td>n.s.</td>
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<td>Resident case-mix characteristics</td>
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<tr>
<td>Mean percentage non-Hispanic white</td>
<td>86.4 (1.1)</td>
<td>86.0 (1.1)</td>
<td>n.s.</td>
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<tr>
<td>Mean percentage female</td>
<td>70.9 (0.8)</td>
<td>70.3 (0.9)</td>
<td>n.s.</td>
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<tr>
<td>Mean percentage aged 85 or older</td>
<td>46.6 (1.2)</td>
<td>48.0 (1.1)</td>
<td>n.s.</td>
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</tr>
<tr>
<td>Mean percentage diagnosed with Alzheimer's disease or other dementia</td>
<td>39.3 (1.1)</td>
<td>44.3 (1.3)</td>
<td>p &lt; .05</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mean percentage diagnosed with depression</td>
<td>27.1 (0.9)</td>
<td>28.6 (1.1)</td>
<td>n.s.</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Mean percentage needing any assistance with bathing</td>
<td>64.6 (1.1)</td>
<td>71.1 (1.0)</td>
<td>p &lt; .001</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mean percentage needing any assistance with eating</td>
<td>19.6 (1.1)</td>
<td>26.3 (1.1)</td>
<td>p &lt; .001</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: National Center for Health Statistics (2013a and 2013b).
Note. n.s. = not significant.
Characteristics Associated With Overnight Hospital Discharges and Readmissions

According to the multivariate analysis, after controlling for all other characteristics including bed size, we observed a greater likelihood of having at least one resident with an overnight hospitalization discharge in a 90-day period among residential care communities that were chain affiliated (OR = 1.29), participated in Medicaid (OR = 1.32), were located in the Northeast (compared to the West) (OR = 1.56), and had a higher percentage of residents diagnosed with depression (OR = 1.01) (Table 3). Communities that were part of a CCRC had a lower likelihood of having at least one resident with an overnight hospital-stay discharge (OR = 0.73).

After controlling for all other characteristics including bed size, we found that having at least one resident readmitted

Table 3. Logistic Regression Results for Having at Least One Resident With a 90-Day Overnight Hospital Discharge and for Having at Least One Resident With a 30-Day Hospital Readmission: United States, 2012

<table>
<thead>
<tr>
<th>Organizational characteristics</th>
<th>At Least One Resident With 90-Day Overnight Hospital Discharge</th>
<th>At Least One Resident With 30-Day Hospital Readmission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Odds ratio (95% confidence interval)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonprofit/government ownership</td>
<td>1.02 (0.78-1.32)</td>
<td>0.87 (0.68-1.13)</td>
</tr>
<tr>
<td>Chain affiliated</td>
<td>1.29* (1.02-1.65)</td>
<td>1.25 (0.97-1.62)</td>
</tr>
<tr>
<td>Part of a continuing care retirement community</td>
<td>0.73* (0.57-0.94)</td>
<td>1.24 (0.97-1.59)</td>
</tr>
<tr>
<td>Participates in Medicaid</td>
<td>1.32* (1.03-1.68)</td>
<td>1.09 (0.86-1.39)</td>
</tr>
<tr>
<td>≥ 10 years in operation</td>
<td>0.92 (0.72-1.18)</td>
<td>1.18 (0.91-1.53)</td>
</tr>
<tr>
<td>Located in metropolitan statistical area</td>
<td>0.88 (0.70-1.09)</td>
<td>1.06 (0.83-1.36)</td>
</tr>
<tr>
<td>Region (reference = West)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>1.56* (1.10-2.20)</td>
<td>1.98*** (1.39-2.82)</td>
</tr>
<tr>
<td>Midwest</td>
<td>1.25 (0.92-1.71)</td>
<td>1.02 (0.72-1.44)</td>
</tr>
<tr>
<td>South</td>
<td>1.17 (0.86-1.59)</td>
<td>1.29 (0.93-1.79)</td>
</tr>
<tr>
<td>Used electronic health records</td>
<td>1.19 (0.90-1.58)</td>
<td>1.15 (0.87-1.50)</td>
</tr>
<tr>
<td>Nursing (reference = no RN and LPN employees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registered nurse (RN) employees only</td>
<td>1.21 (0.88-1.66)</td>
<td>1.28 (0.88-1.86)</td>
</tr>
<tr>
<td>Licensed practical nurse (LPN) employees only</td>
<td>1.11 (0.77-1.58)</td>
<td>2.00*** (1.35-2.97)</td>
</tr>
<tr>
<td>RN and LPN employees</td>
<td>1.18 (0.85-1.65)</td>
<td>1.50* (1.03-2.19)</td>
</tr>
<tr>
<td>Number of aide hours per resident per day</td>
<td>0.98 (0.93-1.05)</td>
<td>0.95 (0.87-1.03)</td>
</tr>
<tr>
<td>Any therapeutic services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided by employees only or employees and others</td>
<td>0.90 (0.70-1.15)</td>
<td>0.73** (0.58-0.93)</td>
</tr>
<tr>
<td>Skilled nursing services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided by employees only or employees and others</td>
<td>1.12 (0.89-1.41)</td>
<td>0.96 (0.76-1.20)</td>
</tr>
<tr>
<td>Resident case-mix characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean percentage non-Hispanic white</td>
<td>1.00 (1.00-1.01)</td>
<td>1.00 (0.99-1.00)</td>
</tr>
<tr>
<td>Mean percentage female</td>
<td>1.00 (1.00-1.01)</td>
<td>1.00 (0.99-1.01)</td>
</tr>
<tr>
<td>Mean percentage aged 85 and older</td>
<td>1.00 (1.00-1.01)</td>
<td>1.00* (0.99-1.00)</td>
</tr>
<tr>
<td>Mean percentage diagnosed with Alzheimer’s disease or other dementia</td>
<td>1.00 (0.99-1.00)</td>
<td>1.00 (0.99-1.00)</td>
</tr>
<tr>
<td>Mean percentage diagnosed with depression</td>
<td>1.01* (1.00-1.01)</td>
<td>1.00 (1.00-1.01)</td>
</tr>
<tr>
<td>Mean percentage needing any assistance with bathing</td>
<td>1.00 (1.00-1.00)</td>
<td>1.00 (1.00-1.00)</td>
</tr>
<tr>
<td>Mean percentage needing any assistance with eating</td>
<td>1.00 (0.99-1.00)</td>
<td>1.00 (0.99-1.01)</td>
</tr>
</tbody>
</table>


*p < .05, **p < .01, ***p < .001.
to a hospital within 30 days of a hospital discharge was more likely among communities that were located in the Northeast (compared to the West) (OR = 1.98), had LPN employees only (compared to no licensed nursing staff) (OR = 2.00), and had RN and LPN employees (compared to no licensed nursing staff) (OR = 1.50) (Table 3). The likelihood of having at least one resident with a 30-day readmission was lower among communities that provided any therapeutic services (compared to not providing them) (OR = 0.73) and that had a greater percentage of residents 85 years and older (OR = 1.00).

DISCUSSION

Almost two-thirds of residential care communities (61.0%) in this study had at least one resident with a discharge from an overnight hospital stay in a 90-day period. Among those residential care communities with any residents with 90-day hospitalization discharges, 39.3% had at least one resident readmitted within 30 days of discharge.

This study builds on the literature regarding the relationships between hospitalizations and readmissions and the organizational and resident case-mix characteristics of assisted living facilities. Among the organizational characteristics, region was significantly associated with both having any residents with 90-day overnight hospital stay discharges and 30-day readmissions. Residential care communities in the Northeast were more likely to have residents with hospitalizations and readmissions. Region was the only independent variable that was a significant predictor of both hospital stay discharges and readmissions. To our knowledge, region has not been included in other studies on hospitalizations and readmissions in residential care, but studies that have looked at hospitalizations in residential care found similar relationships with respect to organizational and resident characteristics (Becker et al., 2012; Hogan et al., 2014; Maxwell et al., 2015; Sloane et al., 2005; Stearns et al., 2007). We should note, however, that Hedrick and colleagues (2009) found that the presence of RN or LPN staff was associated with fewer 12-month hospitalizations, while we found that the presence of RN or LPN staff was associated with increased 30-day readmissions.

When examining rates of readmissions, in addition to being located in the Northeast, having only LPN or both RN and LPN employees was associated with a greater likelihood of having residents with readmissions compared with having no RN or LPN employees. Communities that provide any therapeutic services and those in which more of their residents are 85 years and older had a lower likelihood of having 30-day readmissions. To date, no studies have been conducted on readmissions in residential care, but studies that have looked at hospitalizations in residential care found similar relationships with respect to organizational and resident characteristics (Becker et al., 2012; Hogan et al., 2014; Maxwell et al., 2015; Sloane et al., 2005; Stearns et al., 2007). We should note, however, that Hedrick and colleagues (2009) found that the presence of RN or LPN staff was associated with fewer 12-month hospitalizations, while we found that the presence of RN or LPN staff was associated with increased 30-day readmissions.

Limitations

The strengths of this study include the focus on rates at the community level and the linking of overnight hospital stays with readmissions. Despite these strengths, the study had some limitations. The measurements of rates of overnight hospital discharges and readmissions may underrepresent actual rates because of the timing of data collection and the 90-day and 30-day periods in the survey questions. For example, a community may have had a resident with an overnight hospital discharge, but at the time of the survey, the resident may not yet have had a 30-day readmission. Or, a community may have had a resident (for whom a bed was being held) who was hospitalized overnight but had not yet been discharged and, therefore, was not counted in the 90-day hospital discharge rate. Some residential care communities were excluded from the study because of missing or erroneous data. In analyses comparing
the included communities to the excluded communities for hospitalizations and readmissions, the two groups differed significantly with respect to bed size, race/ethnicity, aide HPRDs, and therapeutic service provision. These differences could have resulted in bias in the study findings. The 2012 NSLTCP residential care community survey contained a limited number of variables measuring organizational and resident case-mix characteristics; therefore, questions remain. For example, the survey did not collect information about the reason for the overnight hospital stay or readmission or the length of the hospital stay. Finally, because of the cross-sectional nature of the survey, we could not draw causality from the findings.

CONCLUSION

Policymakers and researchers have identified hospitalizations and readmissions as important indicators of patient safety, as well as significant drivers of cost in the health care sector, particularly for long-term services and supports. This study provides further evidence that both outcomes are prevalent in residential care, and it identifies potential characteristics associated with having at least one resident with a hospitalization or readmission. An association with a CCRC and the provision of therapeutic services were found to be protective against hospitalizations and readmissions, respectively. Organizational and resident characteristics, such as chain affiliation, Medicaid participation, and the percentage of residents with a diagnosis of depression, were associated with a greater likelihood of having hospitalizations only, while the presence of licensed nursing staff and the percentage of residents aged 85 and older were associated with a greater likelihood of having readmissions only. Geographic location was found to be predictive of both hospitalizations and readmissions in residential care.

This study contributes to the growing body of knowledge regarding hospitalizations and readmissions among noninstitutional long-term services and supports. The study findings highlight residential care communities with particular organizational and resident case-mix characteristics that may benefit from targeted interventions to address these increasingly important public policy issues.

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## TECHNICAL APPENDIX

### Appendix A. Descriptive Statistics for the Cases Included in the Analyses

<table>
<thead>
<tr>
<th>Organizational Characteristics</th>
<th>Hospitalization Cases</th>
<th>Readmissions Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent or Number</td>
<td></td>
</tr>
<tr>
<td>Mean number of beds</td>
<td>37.6</td>
<td>51.3</td>
</tr>
<tr>
<td>Nonprofit/government ownership</td>
<td>21.1</td>
<td>24.6</td>
</tr>
<tr>
<td>For-profit ownership</td>
<td>78.9</td>
<td>75.4</td>
</tr>
<tr>
<td>Chain affiliated</td>
<td>58.6</td>
<td>64.1</td>
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<tr>
<td>Not chain affiliated</td>
<td>41.4</td>
<td>35.9</td>
</tr>
<tr>
<td>Part of a continuing care retirement community (CCRC)</td>
<td>36.3</td>
<td>36.0</td>
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<tr>
<td>Not part of a CCRC</td>
<td>63.7</td>
<td>64.0</td>
</tr>
<tr>
<td>Participates in Medicaid</td>
<td>52.3</td>
<td>52.8</td>
</tr>
<tr>
<td>Does not participate in Medicaid</td>
<td>47.7</td>
<td>47.2</td>
</tr>
<tr>
<td>≥ 10 years in operation</td>
<td>61.7</td>
<td>67.1</td>
</tr>
<tr>
<td>&lt; 10 years in operation</td>
<td>38.3</td>
<td>32.9</td>
</tr>
<tr>
<td>Located in metropolitan statistical area (MSA)</td>
<td>80.3</td>
<td>78.8</td>
</tr>
<tr>
<td>Not located in MSA</td>
<td>19.7</td>
<td>21.2</td>
</tr>
<tr>
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<td></td>
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<tr>
<td>Northeast</td>
<td>10.2</td>
<td>13.3</td>
</tr>
<tr>
<td>Midwest</td>
<td>23.4</td>
<td>26.1</td>
</tr>
<tr>
<td>South</td>
<td>30.6</td>
<td>31.7</td>
</tr>
<tr>
<td>West</td>
<td>35.8</td>
<td>28.8</td>
</tr>
<tr>
<td>Uses electronic health records (EHRs)</td>
<td>19.9</td>
<td>23.9</td>
</tr>
<tr>
<td>Does not use EHRs</td>
<td>80.1</td>
<td>76.1</td>
</tr>
<tr>
<td>Nursing</td>
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<td></td>
</tr>
<tr>
<td>Registered nurse (RN) employees</td>
<td>21.9</td>
<td>21.2</td>
</tr>
<tr>
<td>Licensed practical nurse (LPN) employees</td>
<td>16.3</td>
<td>19.3</td>
</tr>
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<td>RN and LPN employees</td>
<td>27.4</td>
<td>34.9</td>
</tr>
<tr>
<td>No RN or LPN employees</td>
<td>34.4</td>
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<tr>
<td>Number of aide hours per resident per day</td>
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</tr>
<tr>
<td>Any therapeutic services</td>
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<tr>
<td>Provided by employees only or employees and others</td>
<td>31.9</td>
<td>32.3</td>
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<tr>
<td>Not provided or provided by referral only</td>
<td>68.1</td>
<td>67.7</td>
</tr>
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<td>Provided by employees only or employees and others</td>
<td>39.7</td>
<td>42.8</td>
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<tr>
<td>Not provided or provided by referral only</td>
<td>60.3</td>
<td>57.2</td>
</tr>
<tr>
<td>Resident case-mix characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean percentage non-Hispanic white</td>
<td>83.0</td>
<td>86.2</td>
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<tr>
<td>Mean percentage female</td>
<td>69.0</td>
<td>70.5</td>
</tr>
<tr>
<td>Mean percentage aged 85 and older</td>
<td>45.7</td>
<td>47.4</td>
</tr>
<tr>
<td>Mean percentage diagnosed with Alzheimer's disease or other dementia</td>
<td>44.8</td>
<td>42.4</td>
</tr>
<tr>
<td>Mean percentage diagnosed with depression</td>
<td>27.4</td>
<td>28.1</td>
</tr>
<tr>
<td>Mean percentage needing any assistance with bathing</td>
<td>72.2</td>
<td>68.6</td>
</tr>
<tr>
<td>Mean percentage needing any assistance with eating</td>
<td>28.4</td>
<td>23.7</td>
</tr>
</tbody>
</table>

*Source.* National Center for Health Statistics (2013a and 2013b).
REFERENCES


Influence of Senior Living Employees’ Perceptions of Aging on Engagement and Quality of Resident Interactions

Jennifer L. Smith, PhD

ABSTRACT

The Problem: Senior living employees’ perceptions of aging are important because people’s beliefs and attitudes inform their behaviors. Evidence suggests that perceptions of aging can influence the treatment of older adults, and senior living employees may be unaware of how their perceptions of aging can shape their thoughts and behaviors in the workplace. The purpose of this study was to examine the connection between senior living employees’ perceptions of aging and their attitudes and beliefs about their work (i.e., employee engagement and quality of resident interactions).

The Resolution: A survey was administered to 198 senior living employees that included measures of perceptions of aging, employee engagement, and quality of interactions with residents. The results revealed that more positive perceptions of aging were associated with higher employee engagement (i.e., higher work engagement, lower burnout, and greater purpose) and better interactions with residents (i.e., greater support of resident autonomy and lower overprotection). More specifically, positive perceptions of aging were related to a greater sense of purpose, which, in turn, was associated with greater work engagement.

Tips for Success: The current findings suggest that senior living communities are a better fit for employees who have positive perceptions of aging. Steps to improve perceptions of aging in the workplace can include education on misconceptions about aging and strategies for countering negative thoughts about aging, as well as recognizing and eliminating negative age stereotypes in communications.

Keywords: Attitudes toward aging, burnout, purpose, autonomy, overprotection
INTRODUCTION

Perceptions of Aging

Senior living employees’ perceptions of aging are important because people’s beliefs and attitudes inform their behaviors (e.g., Ajzen, 1991). In fact, evidence suggests that perceptions of aging can impact the quality of treatment provided to older adults in health care settings (e.g., Ben-Harush et al., 2017). For example, older adults are less likely to receive treatment for medical conditions, such as high blood pressure and depression, when physicians misattribute the conditions to natural age-related changes, and older adults are less likely to receive recommendations to engage in preventive care (Adelman, Greene, & Ory, 2000; Hajjar, Miller, & Hirth, 2002; James & Haley, 1995; Robb, Chen, & Haley, 2002). However, these findings have not been extended in research for the senior living industry, which includes a combination of health care, wellness, and hospitality services. The purpose of the current study was to examine the association between senior living employees’ perceptions of aging and their attitudes and beliefs about their work (as reflected in their reports of employee engagement and quality of interactions with residents).

The stereotype embodiment theory (Levy, 2009) posits that age stereotypes are internalized over the course of one’s life. Attitudes toward aging and older adults are formed during childhood, and they are influenced by personal experiences and one’s sociocultural environment (Isaacs & Bearison, 1986; Kornadt, Voss, & Rothermund, 2017; Levy & Langer, 1994). For instance, fourth- and fifth-grade students in one study expressed negative expectations regarding their own aging, including beliefs that they would feel lonely and sick as older adults (Newman, Faux, & Larimer, 1997). In addition, older adults who lived in areas where negative age stereotypes were more prevalent performed worse on memory tests, which was attributed to greater internalization of negative beliefs about aging (Levy & Langer, 1994). These findings demonstrate the importance of how older adults are portrayed in a society.

Perceptions of aging influence people’s thoughts and behaviors (Levy & Myers, 2004; Robertson, Savva, King-Kallimanis, 2015; Smith & Bryant, 2018; Wurm, Tomasick, & Tesch-Römer, 2010), and the effects of perceptions of aging may have long-term impacts. For instance, several longitudinal studies have found that more positive perceptions of aging are related to better future physical health and longevity (Levy, Slade, & Kasl, 2002; Moser, Spagnoli, & Santos-Eggimann, 2011; Sargent-Cox, Anstey, & Luszcz, 2014; Wurm, Tesch-Römer, & Tomasik, 2007).

Employee Engagement

According to the job demands-resources (JD-R) model, job demands (e.g., heavy workloads and role ambiguity), job resources (e.g., role autonomy and social support), and personal resources (e.g., optimism and resilience) affect employee engagement and burnout (Bakker & Demerouti, 2007; Bakker, Demerouti, & Sanz-Vergel, 2014; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands are associated with greater employee burnout, which is characterized by emotional exhaustion, cynicism, and ineffectiveness in one’s role (Lee & Ashworth, 1996; Maslach & Leiter, 2008). However, job resources are related to greater employee engagement, which is distinguished by positive energy, commitment, involvement, and achievement at work (e.g., Bakker et al., 2014). In addition, personal resources, including self-esteem, emotional stability, and optimism, are positively associated with engagement and negatively associated with burnout (Alarcon, Eschleman, & Bowling, 2009; Bakker et al., 2014; Mäkikangas, Feldt, Kinnunen, & Mauno, 2013).

Drawing on the JD-R model, positive perceptions of aging may function as a personal resource for senior living employees, thereby contributing to employees’ engagement and their motivation to provide high levels of service. Positive perceptions of aging reflect an expectation that older adults may maintain, or even improve, their health and well-being as they age (Sarkisian, Steers, Hays, & Mangione, 2005). More positive perceptions of aging are associated with higher levels of perceived control (Levy et al., 2002), which is the belief that outcomes are a result of one’s personal efforts rather than external factors (Rotter, 1966). Senior living employees who have more positive perceptions of aging may experience a greater sense of purpose or fulfillment in their roles because of the belief that they directly or indirectly contribute to the
health and well-being of residents. Employees who have more negative perceptions of aging may view declines in older adults' health and well-being as inevitable and less within their sphere of influence. Accordingly, employees with more positive perceptions of aging may experience higher levels of engagement, satisfaction, and purpose as well as lower levels of burnout. In addition, a sense of purpose may be a pathway through which perceptions of aging impact engagement.

Quality of Resident Interactions

Previous research suggests that perceptions of aging impact the way in which people communicate and interact with older adults (Hummert, Garstka, Ryan, & Bonnesen, 2004; Langer & Rodin, 1976). Interactions between senior living employees and residents may support residents' autonomy or their dependence. Specifically, research has found that nursing home residents who were encouraged by the nursing home administrator and staff to make their own decisions and to have greater control over their living environments reported better well-being compared to a comparison group (Langer & Rodin, 1976). Senior living employees who have more positive perceptions of aging may be more likely to engage in behaviors that support the autonomy of residents (i.e., the ability to make decisions and to determine actions in one’s own life) (Deci & Ryan, 2008; Ryff & Keyes, 1995). The availability of needed support and resources is an important component of older adults’ autonomy and independence (Hillcoat-Nallétamby, 2014).

In contrast, overprotection is associated with negative outcomes, such as lower adjustment to impairments and greater depression (e.g., Cimarolli, Reinhardt, & Horowitz, 2006; Thompson & Sobolew-Shubin, 1993). For example, older adults with age-related vision impairments who felt overprotected reported less adaptation to the vision impairment and lower environmental mastery (Cimarolli et al., 2006). In a similar vein, negative perceptions of aging are associated with overaccommodation of speech during conversations with older adults (Hummert et al., 2004). Overaccommodation of speech, a form of overprotection, refers to the use of simpler words and shorter sentences without taking into account the actual needs and abilities of one’s conversation partner. Overaccommodation is problematic because it can reinforce negative age stereotypes, lower older adults' self-esteem, and limit their communication abilities (Brown & Draper, 2002; Hummert et al., 2004; Kemper & Harden, 1999). Furthermore, negative attitudes toward older adults are associated with greater paternalism (Cary, Chasteen, & Remedios, 2017), which can contribute to greater dependence. These findings suggest that senior living employees who have more negative perceptions of aging may endorse higher levels of overprotection toward residents.

Current Study

Most of the research on perceptions of aging has focused on the impact of older adults’ perceptions of aging on their health and well-being (e.g., Levy, 2009). The author is not aware of any research on how senior living employees’ perceptions of aging are associated with their work engagement and quality of interactions with residents. This is an important topic, because many senior living employees may be unaware of how their perceptions of aging can shape their thoughts and behaviors in the workplace (e.g., Levy & Banaji, 2002). The purpose of this study was to assess the extent to which senior living employees’ perceptions of aging are related to employee engagement and the quality of interactions with residents. The analyses will control for the effects of likely covariates, including age, sex, education, and amount of interaction with residents. This study tested the following hypotheses:

**Hypothesis 1:** More positive perceptions of aging will be associated with greater employee engagement, including higher work engagement, lower burnout, higher workplace satisfaction, and higher sense of purpose.

**Hypothesis 2:** Sense of purpose will mediate the relationship between perceptions of aging and work engagement.

**Hypothesis 3:** More positive perceptions of aging will be associated with higher quality of care, as assessed through greater support of residents’ autonomy and lower overprotection.
METHODS

Participants

A convenience sample of 198 senior living employees participated in this study. Participants were predominantly female (79%), white (72%), and married or in a domestic partnership (61%). One-third (33%) of participants reported annual household incomes below $50,000, 27% reported incomes from $50,001 to $100,000, 22% reported incomes from $100,001 to $150,000, and 18% reported incomes over $150,000. Seventy-nine percent of participants were employed at a life plan community (or a continuing care retirement community). Approximately one-third (35%) of participants worked for their current employer for less than 3 years, 37% worked for 3 to 10 years, and 28% worked for more than 10 years. In addition, participants were asked to report the number of days per week, on average, they directly interact with residents (ranging from 0 to 7 days). Seventy percent of participants indicated that they directly interact with residents 5 or more days per week, 20% directly interact with residents 2 to 4 days per week, and 10% directly interact with residents 1 day per week or less often.

Measures

Perceptions of aging. Perceptions of aging were measured using the 12-item Expectations Regarding Aging Survey (Sarkisian et al., 2005). These items assess the extent to which aging is perceived to be associated with declines in physical health, socioemotional well-being, and cognitive functioning (e.g., “When people get older, they need to lower their expectations of how healthy they can be.”). Participants rated each statement using a 4-point scale (1 = Definitely false, 4 = Definitely true). Items were reverse-scored and then averaged together, with higher scores indicating more positive perceptions of aging.

Employee engagement. Participants completed four measures related to employee engagement: work engagement, burnout, workplace satisfaction, and purpose. Work engagement was measured using the nine-item Ultrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). The items assess how often participants feel dedicated to, focused on, and energized by their job (e.g., “I am proud of the work I do.”). Participants rated how frequently they experienced each item using a 7-point scale (1 = Never, 7 = Every day). Scores for the items were averaged together, and higher scores reflect greater work engagement.

Burnout was assessed using a single-item measure (i.e., “I feel burnout from my work”; West, Dyrbye, Satele, Sloan, & Shanafelt, 2012). Participants indicated how frequently they experienced burnout using a 7-point scale (1 = Never, 7 = Every day). Workplace satisfaction was assessed with a single-item measure (i.e., “How satisfied are you with your community as a place to work?”; Buckingham & Coffman, 1999). Participants used a 7-point scale (1 = Extremely dissatisfied, 7 = Extremely satisfied) to rate their workplace satisfaction.

Purpose was measured using the six-item Life Engagement Test (Scheier et al., 2006). This measure assessed the extent to which participants felt a sense of purpose and meaning in their lives (e.g., “To me, the things I do are all worthwhile.”). Participants rated the extent to which they agreed with each item using a 7-point scale (1 = Strongly disagree, 7 = Strongly agree).

Overprotection was assessed with the Overprotection Scale for Older Adults (adapted from Thompson & Sobolew, 1993). The eight-item measure was adapted for use by senior living employees (e.g., “I help residents with things they could do for themselves.”). The items
assessed participants’ tendency to overhelp or to try to control resident behavior. Participants rated the extent to which they agreed with each item using a 7-point scale (1 = Strongly disagree, 7 = Strongly agree). The item scores were averaged together, and higher scores reflect greater overprotection.

Procedure

Multiple regression analyses were conducted with perceptions of aging predicting the outcome variable (e.g., engagement, burnout), while controlling for age, sex, education, and number of days per week that employees typically interact with residents at work. The continuous predictor variables were mean-centered to reduce multicollinearity and to improve interpretability of the results. The means, standard deviations, correlations, and reliabilities for the continuous variables are displayed in Table 1.

Perceptions of Aging and Employee Engagement

The first set of analyses examined the relationship between perceptions of aging and employee engagement outcomes (i.e., work engagement, burnout, workplace satisfaction, and purpose) (see Table 2). Focusing first on work engagement, more positive perceptions of aging were associated with greater work engagement, $b = .025$, $p = .040$. In addition, older participants tended to report higher work engagement, $b = .02$, $p < .001$. Switching to burnout as the outcome variable, more negative perceptions of aging were related to higher feelings of burnout, $b = -.58$, $p = .023$. Age was associated with less burnout, but higher education (college degree or more education) was related to higher burnout, $b = -.03$, $p = .004$, and $b = .69$, $p = .011$, respectively. Unexpectedly, the results showed no significant relationship between perceptions of aging and workplace satisfaction, $b = .25$, $p = .173$. Analyses with purpose as the outcome variable revealed that more positive perceptions of aging were associated with a greater sense of purpose in life, $b = .26$, $p = .019$. Older age and greater amounts of time spent interacting with residents also were related to greater purpose, $b = .01$, $p = .008$, and $b = .07$, $p = .046$, respectively.

Overall, these findings indicate that perceptions of aging were related to employee engagement factors in several ways. Specifically, senior living employees with more positive expectations regarding aging reported significantly greater work engagement, lower burnout, and higher purpose, after controlling for age, sex, education, and amount of interaction with residents. However, there was no statistically significant relationship between perceptions of aging and workplace satisfaction.

### Table 1. Correlations, Means, Standard Deviations (SDs), and Reliabilities of Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
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<th>9</th>
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<tbody>
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<td>1. Perceptions of aging</td>
<td>.86</td>
<td></td>
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<td>2. Engagement</td>
<td>.24*</td>
<td>.85</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Burnout</td>
<td>-.14*</td>
<td>-.22*</td>
<td>—</td>
<td></td>
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<td>4. Workplace satisfaction</td>
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<td>.30*</td>
<td>-.26*</td>
<td>—</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>5. Purpose</td>
<td>.21*</td>
<td>.39*</td>
<td>-.18*</td>
<td>.15*</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Autonomy support</td>
<td>.19*</td>
<td>.26*</td>
<td>-.05</td>
<td>.11</td>
<td>.17*</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Overprotection</td>
<td>-.38*</td>
<td>-.19*</td>
<td>.17*</td>
<td>-.02</td>
<td>-.24*</td>
<td>-.39*</td>
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<td>8. Age</td>
<td>.18*</td>
<td>.37*</td>
<td>-.22*</td>
<td>.03</td>
<td>.21*</td>
<td>.16*</td>
<td>-.29*</td>
<td>—</td>
<td></td>
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<tr>
<td>9. Resident interaction</td>
<td>-.07</td>
<td>-.10</td>
<td>.09</td>
<td>-.10</td>
<td>.13</td>
<td>.30*</td>
<td>-.03</td>
<td>-.02</td>
<td>—</td>
</tr>
</tbody>
</table>

*M (SD) 2.92 6.10 3.18 5.86 6.20 6.17 2.48 49.95 4.32  

* $p < .05$; scale reliability (Cronbach’s alpha) is shown in italics on the diagonal for each multi-item measure.
Mediation Analyses

Exploratory analyses were conducted to examine sense of purpose as a potential mediator of the association between perceptions of aging and work engagement. Mediation analyses were conducted using PROCESS (v. 2.16.3) (Hayes, 2013) to test the indirect effects of perceptions of aging on work engagement via purpose, while controlling for age, education, sex, and amount of interaction with residents. The analyses revealed a significant relationship between perceptions of aging and purpose (path a, see Figure 1). When controlling for purposes of aging, there was a significant positive relationship between purpose and work engagement (path b). When controlling for purpose, perceptions of aging was no longer a significant predictor of work engagement (c path and c' path). These findings suggest that the connection between greater perceptions of aging and greater work engagement may be due to a higher sense of purpose in participants with more positive perceptions of aging. Purpose accounted for 37% of the variance in work engagement. Additional analyses revealed that purpose was not a significant mediator of the association between perceptions of aging and burnout.

Figure 1. Model Depicting Purpose As a Mediator of the Association Between Perceptions of Aging and Work Engagement

The regression analyses also controlled for age, education, sex, and amount of resident interaction. Values above pathways are unstandardized regression coefficients: c = regression coefficient without the mediator in the analyses; c’ = regression coefficient when controlling for the mediator. Unstandardized indirect effect = .09, standard error = .05, bias-corrected bootstrap 95% confidence interval (0.02–0.21). * p < .05.

Table 2. Regression Estimates of Perceptions of Aging and Covariates Associated With Employee Engagement

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Work Engagement</th>
<th>Burnout</th>
<th>Workplace Satisfaction</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>ß</td>
<td>b</td>
<td>ß</td>
</tr>
<tr>
<td>Intercept</td>
<td>6.02*</td>
<td></td>
<td>2.83*</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.02*</td>
<td>.33</td>
<td>-.03*</td>
<td>-.21</td>
</tr>
<tr>
<td>Education</td>
<td>.18</td>
<td>.10</td>
<td>.69*</td>
<td>.19</td>
</tr>
<tr>
<td>Sex</td>
<td>-.09</td>
<td>-.04</td>
<td>-.15</td>
<td>-.03</td>
</tr>
<tr>
<td>Resident interaction</td>
<td>-.04</td>
<td>-.07</td>
<td>.16</td>
<td>.14</td>
</tr>
<tr>
<td>Perceptions of aging</td>
<td>.25*</td>
<td>.14</td>
<td>-.58*</td>
<td>-.17</td>
</tr>
</tbody>
</table>

* p < .05; sex: 0 = female, 1 = male; education: 0 = no college degree, 1 = college degree or more education.
Perceptions of Aging and Quality of Resident Interactions

The next set of analyses focused on the association between perceptions of aging and quality of resident interactions (see Table 3). With regard to overprotection, the analyses revealed that more negative perceptions of aging were associated with higher levels of overprotection, $b = -.62$, $p < .001$. In addition, older participants tended to report less overprotection of residents, $b = -.01$, $p = .002$. Turning to analyses of autonomy support, more positive perceptions of aging were related to greater support of resident autonomy, $b = .20$, $p = .038$. Women tended to report higher levels of autonomy support, $b = -.25$, $p = .041$. In addition, higher education and more time spent interacting with residents were associated with high autonomy support, $b = .21$, $p = .042$, and $b = .15$, $p = .038$, respectively. These findings suggest that more positive perceptions of aging are associated with higher-quality resident interactions in the form of greater autonomy support and less overprotection.

Table 3. Regression Estimates of Perceptions of Aging and Covariates Associated With Quality of Resident Interactions

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Autonomy Support $b$</th>
<th>8</th>
<th>Overprotection $b$</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>6.11*</td>
<td>2.54*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.01</td>
<td>.15</td>
<td>-.01*</td>
<td>.21</td>
</tr>
<tr>
<td>Education</td>
<td>.21*</td>
<td>.15</td>
<td>-.15</td>
<td>-.07</td>
</tr>
<tr>
<td>Sex</td>
<td>-.25*</td>
<td>-.14</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Resident interaction</td>
<td>.15*</td>
<td>.32</td>
<td>-.05</td>
<td>-.07</td>
</tr>
<tr>
<td>Perceptions of aging</td>
<td>.20*</td>
<td>.15</td>
<td>-.62*</td>
<td>-.33</td>
</tr>
</tbody>
</table>

*p < .05; sex: 0 = female, 1 = male; education: 0 = no college degree, 1 = college degree or more education.

DISCUSSION

Overall, this study revealed that perceptions of aging are related to senior living employees’ engagement in their work, as well as higher-quality interactions with residents. Therefore, Hypothesis 1 was partially supported. As predicted, more positive perceptions of aging were associated with higher work engagement, lower burnout, and greater sense of purpose; however, perceptions of aging were not related to workplace satisfaction. These findings suggest that positive perceptions of aging may be a resource that supports employee engagement, consistent with the JD-R model (Bakker et al., 2014). Employees who have more positive perceptions of aging may be more engaged in their roles because of an awareness of how their work contributes to the health and well-being of residents. These findings are also in line with those of previous research on the association between worker–workplace fit and engagement (e.g., Maslach & Leiter, 2008). Poor worker–workplace fit is related to lower engagement and higher burnout. Senior living communities are likely a better fit for people who have more positive attitudes about older adults. Accordingly, senior living employees with more positive perceptions of aging may find their work more rewarding and meaningful.

Mediational analyses showed that more positive perceptions of aging predicted a greater sense of purpose, which, in turn, predicted higher work engagement (Hypothesis 2). These findings suggest that purpose may be an underlying mechanism through which perceptions of aging impact employee engagement. Although this study used an overall measure of purpose and meaning in life rather than a work-specific measure, previous research has found a strong correlation between meaning in life and meaningful work (Steger, Dik, & Duffy, 2012). Finding intrinsic value in one’s work—believing that one’s work makes a difference to the residents and to the organization—is an important component of engagement, and it also is associated with a greater ability to handle stress (Britt, Adler, & Bartone, 2001; Shuck & Rose, 2013).

Supporting Hypothesis 3, participants with more positive perceptions of aging reported higher-quality interactions with residents in the forms of greater support of residents’ autonomy and lower overprotection. Autonomy is important to the well-being and quality of life of residents at all levels of care (e.g., Ayalon, 2016; Clark, 1988). Autonomy is a key component of person-centered care (e.g., Brownie & Nancarrow, 2013). It is likely that the high levels of autonomy support ($M = 6.17$) and low levels of overprotection ($M = 2.48$) found in this study are due, at least in part, to the cultural shift and emphasis on
person-centered care in the senior living industry. These findings may also be attributed to the higher proportion of senior living residents who are living independently compared to residents in higher levels of care. In this study sample, employees who primarily interact with residents in health care venues (e.g., assisted living or skilled nursing) reported higher levels of overprotection (n = 26, M = 2.77) than did employees who primarily interact with residents in independent living (n = 50, M = 2.24), but they reported similar levels of support for resident autonomy.

Implications for Practice

These findings can be applied to the senior living industry in several ways. First, the study results can be used to guide the selection and development of employee training. For instance, senior living organizations could provide training to increase employees' awareness of their own perceptions of aging and how these perceptions may impact their behaviors. Interventions designed to improve perceptions of aging have been effective in older adult populations (Sarkisian, Prohaska, Davis, & Weiner, 2007; Wolff, Warner, Ziegelman, & Wurm, 2014). Perceptions-of-aging training may include a combination of education on misconceptions about aging, importance of having positive views on aging, awareness of age stereotypes, and techniques for countering automatic thoughts about aging (e.g., Wolff et al., 2014).

On a related note, the ability to take the perspective of older adults is associated with weaker age stereotypes and more positive evaluations of older adults (e.g., Galinsky & Moskowitz, 2000). This finding suggests that training on perspective taking may provide senior living employees with additional skills that may improve the quality of service and care. In addition, employees with greater perspective-taking abilities tend to be better able to reframe workplace stressors in ways that attenuate the negative impact and support goal achievement (e.g., Chan & Wan, 2012; Folkman & Moskowitz, 2000).

The study findings also have implications for the way that senior living providers communicate about aging both within and outside the organization. Although they may be well intentioned, common phrases such as “she looks great for her age” reinforce negative expectations for aging. Language that reinforces age stereotypes may negatively impact not only the residents, but also older employees (e.g., Nussbaum, Pitts, Huber, Krieger, & Ohns, 2005). Senior living providers should review the type of language and images used to depict aging and older adults in the organization’s communication and marketing materials to identify age stereotypes. Employees could receive training to increase their awareness of age stereotypes and how these stereotypes are expressed in everyday conversations.

Limitations and Future Research

Several limitations should be considered when interpreting the study findings. The study was cross-sectional; therefore, causal inferences cannot be supported by the data. Another limitation is that single-item measures were used to assess burnout and workplace satisfaction, and single-item measures may have lower reliability than multi-item scales. In addition, measures of autonomy support and overprotection were adapted from existing measures, and they require further validation. Furthermore, the self-reported responses could be biased because of employees’ desire to provide more socially acceptable responses, such as endorsing higher support of resident autonomy than they may actually provide. The sample was also fairly homogenous in terms of sex and ethnicity.

One important avenue for future research is the development and evaluation of perceptions-of-aging interventions for senior living employees. Such interventions have the potential to not only improve the quality of interactions with residents, but also to improve the well-being and work engagement of senior living employees. In addition, longitudinal or experimental research is needed to further examine sense of purpose as a mechanism through which perceptions of aging may affect engagement. Finally, future research also could directly examine if positive perceptions of aging buffer daily job stress for senior living employees.

CONCLUSION

Senior living employees with more positive perceptions of aging reported greater engagement (i.e., higher work engagement, lower burnout, and a greater sense of purpose), as well as better interactions with residents.
(i.e., greater support of residents’ autonomy and lower overprotection). These findings suggest that interventions designed to educate senior living staff about aging processes and to increase awareness of perceptions of aging may have a positive impact on employee engagement and resident well-being.

ACKNOWLEDGEMENTS

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Defining and Promoting Quality of Life at a Continuing Care Retirement Community: A Case Study

Jacqueline S. Weinstock, PhD; Lynne A. Bond, PhD

ABSTRACT

The Problem: Continuing care retirement communities (CCRCs) promise a setting that provides a high quality of life (QOL) throughout residents’ lifetimes, but we know little about how residents themselves conceptualize QOL within a CCRC context.

The Resolution: We conducted an in-depth case study of one CCRC by examining its residents’ and administrators’ conceptions of QOL and strategies for achieving QOL through qualitative analyses of interviews and surveys.

Tips for Success: Residents and administrators identified three central components of QOL: sense of community; resident-driven active engagement; and individual autonomy, independence, and respect. They also identified six clusters of strategies that are key to promoting QOL, require minimal resources, and appear easily translatable to varied forms of group senior living facilities.

Keywords: CCRC, quality of life, resident perspective, case study, qualitative research
INTRODUCTION

High quality of life (QOL) is important in seniors’ choices for housing and care among “advance planners” (Maloney, Finn, Bloom, & Andresen, 1996, p. 150), despite constraints related to financial, social, and community resources, as well as physical and mental health needs. But what are the central elements of QOL that should guide seniors housing? The literature on QOL related to this topic is extensive (e.g., Lawton, 1986; Michalos, 2017). Four key dimensions have typically been identified: physical, functional, emotional, and social well-being (Cella, 1994); however, research suggests that others may be more relevant and important to seniors themselves, such as autonomy, home, and neighborhood (Vanleerberghe, DeWitte, Claes, Schalock, & Verte, 2017).

Based on their study of assisted living (AL) residents’ own understanding of the meaning of QOL, Morgan and colleagues (2012) identified six domains of quality relating to (1) the self (e.g., autonomy, privacy needs, health), (2) home operations (safety, security, maintenance, and health services), (3) the physical environment (location, accessibility, transportation), (4) the staff (number and quality, personalized and sensitive care), (5) food and dining (menu options and quality, interactions in the dining room), and (6) social life (connections and friendships among residents, general attitudes). Morgan and colleagues (2012) found considerable variation in residents’ perceptions of QOL, and they concluded that QOL is in the eye of the beholder.

With a goal of QOL, seniors commonly seek “aging in place” (that is, “to live in one’s own home and community safely, independently, and comfortably, regardless of age, income, or ability level” [Centers for Disease Control and Prevention, 2009]). According to a 2010 AARP report (Keenan, 2010), nearly three-fourths of U.S. adults 45 and older strongly agreed that they would like to stay in their current residence as long as possible, while two-thirds reported a strong desire to remain in their local community. Aging in place is not only popular among seniors. Many gerontology professionals and politicians, concerned with health care costs, also favor this practice (e.g., Wiles, Leibing, Guberman, Reeve, & Allen, 2011).

Unfortunately, there are few age-friendly or “livable” communities in the United States today, defined as having “walkable streets, housing and transportation options, access to key services and opportunities for residents to participate in community activities” (AARP Livable Communities, n.d.). Most homes and communities are not well suited for aging in place (Bookman, 2008). Pynoos (2011) and Pynoos, Nishita, Cicero, and Caraviello (2008) described seniors’ independent housing as “Peter Pan” houses, designed for people who will never grow old. The same can be said about most U.S. communities.

Continuing care retirement communities1 (CCRCs) were created initially to address the expectable increase in support and health care needs as people age. As a model, it is unique in how it combines assurance of long-term health care with varying levels of housing and additional supports as needed (Somers & Spears, 1992). Once residents arrive, they do not have to make another major move (Zarem, 2010). The promised availability of long-term care, along with security (safe homes and neighborhoods designed to accommodate the needs of seniors); access to social interactions with peers and community membership; varied opportunities for active engagement in life (including social, physical, educational, and creative involvement); and support of individual autonomy, independence, and privacy are among the very goals that prospective and current CCRC residents typically report as drawing them to the CCRC option (Ayalon, 2016; Gaines, Poey, Marx, Parrish, & Resnick, 2011; Hays, Galanos, Palmer, McQuoid, & Flint, 2001; Omoto & Aldrich, 2007). A desire to avoid becoming a burden on family members and to reduce home maintenance and daily housekeeping chores also has been expressed (Krout, Moen, Holmes, Oggins, & Bowen, 2002).

The promise of the CCRC option is that it offers a setting in which seniors can experience QOL throughout the remainder of their lives even as their competences decline and they may need to move to higher levels of care within the community. In other words, the CCRC model appears to address the notion of environmental press (Lawton, 1986; Lawton & Nahemow, 1973) by providing ongoing

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1We acknowledge the currently preferred language of “Life Plan Community,” yet because most of the literature upon which we draw uses CCRC we use that term in this article.
adjustments in the living environment that accommodate residents’ level of competence, thus supporting maximum performance and comfort. For example, living in a CCRC has been associated with increased physical activity (e.g., Gaines et al., 2011; Omoto & Aldrich, 2007), social interactions, and sense of community connection (e.g., Omoto & Aldrich, 2007; Stacy-Konnert & Pynoos, 1992), although some have found that the sense of community diminishes as residents move to higher care levels (Roth, Eckert, & Morgan, 2016; Shippee, 2009). Active participation in the life of the CCRC, including in leadership roles (Omoto & Aldrich, 2007) and participation in active (versus passive) activities (Jenkins, Pienta, & Horgas, 2002), has been shown to have a positive effect on residents’ well-being.

But what does QOL mean to those who actually live and work in a CCRC? Drawing from a review of the literature, the World Health Organization Quality of Life Group (1995, p. 1,405) highlighted the importance of individuals’ context in defining QOL as an “individual’s perception of his or her position in life in the context of the culture and value system where they live, and in relation to their goals, expectations, standards and concerns.” Therefore, it is particularly important for us to ask residents how they define the key components of QOL within a CCRC. Also, what practices do residents and administrators identify as central to promoting QOL across levels of care in such a community? This study builds on existing research through an in-depth case study in which we asked residents and administrators of a select CCRC to detail factors they find central to QOL and the specific structures and strategies that are most powerful in promoting QOL in a group senior living facility.

The Present Study

We present data from an in-depth case study of Wintergreen, an independent, nonprofit, single-site Life Care CCRC of 321 residents in the northeast United States. It was founded by lay community members who were guided by the principles of “respect for community, for the dignity, worth, and independence of each individual in a physical setting, that captures the best of Vermont encouraging community and honoring privacy” (M. J. Gentry, personal communication, March 22, 2016). A small group of Wintergreen residents (subsequently referred to as the resident team) contacted one of the authors (based on her university affiliation) to request an independent evaluation of Wintergreen’s QOL, culture, and community over its 23-year history. The goal was to identify information that would help the CCRC and other senior residential communities promote the highest QOL and care. In this article, we analyze the core elements of QOL that residents and administrators identified, as well as the specific policies and practices they construed as central to promoting high-quality life and care in a senior residential setting.

METHODS

Sample

The 153 study participants were current residents or present or past senior administrators or board members of the Wintergreen CCRC who completed a qualitative interview, a qualitative survey, or both. Table 1 describes the interview sample, the survey sample, and the population of Wintergreen. It is important to note that the population of Wintergreen at the time of our study was more than 99% white (nearly 95% of residents in the state where Wintergreen is located were estimated to identify as “white alone” in 2017, according to the U.S. Census Bureau, n.d.). We did not have access to residents’ socioeconomic backgrounds, but given the entry fee and monthly costs of this CCRC, residents must have had access to substantial financial resources. The interview sample was identified with the help of the Wintergreen resident team, which provided the names of 65 potential resident interviewees using the criteria that they should vary along particular demographic dimensions: age (65-102 years), sex, years of residence at the CCRC, type of residence (independent living [IL], AL, skilled nursing), experience with a spouse living in AL or skilled nursing, location of the residence on campus, degree of involvement in campus groups and activities (high, medium, low), and apparent satisfaction versus dissatisfaction with the CCRC community. Although the latter two criteria were not easily quantifiable, the intent was to ensure a range of interviewees (and, hence, perspectives). The researchers

2“Wintergreen” is a pseudonym for the name of the CCRC we studied.
approached 33 residents, chosen to represent varied combinations of these demographic dimensions; our resident team remained unaware of those we contacted for interviews. One resident invitee declined; the remaining 32 residents agreed and completed the interview. The characteristics of the residents we interviewed were as follows: 21 women, 11 men; age range, 69 to 98 years (mean age, 85 years); one current and one emeritus board member; and 28 residents (87.5% of interviewees) living in IL, two (6.25%) in AL, and two (6.25%) in skilled nursing (note that the 12.5% of interviewees residing in AL or skilled nursing somewhat underrepresented the 20% of the resident population who lived there during the year of data collection).

In addition to the two residents who were also current or emeriti board members, we invited two board members (who were not residents), the CCRC’s seven senior administrators, and three past senior administrators (who lived locally) to be interviewed; all consented and completed the interviews.

All 321 residents of the CCRC (residing across all three residential levels) were invited to complete an anonymous qualitative survey. A total of 109 resident surveys with useable data were returned, representing a 34% response rate (and a response rate of approximately 40% of IL residents). Respondents appeared highly representative of the CCRC’s overall population in most ways (see Table 1): 76% of respondents identified as female, 22% as male; age ranged from 67 to 102 years (mean age, 83 years). However only about 5.5% of respondents were identified as residents in AL or skilled nursing, whereas 20% of CCRC residents lived in AL or skilled nursing. This discrepancy was expected given the health and cognitive challenges of those in AL and skilled nursing.

### Procedure

The researchers met with the seven resident team members over 6 months to identify and refine the research questions, develop and implement strategies for introducing the study to the Wintergreen community, and design data collection methods appropriate to the research questions and population. Two primary data sources were developed: interviews with a subset of residents and administrators, and surveys distributed to all residents.

### Table 1. Characteristics of the Continuing Care Retirement Community (CCRC) Resident Population and Interview and Survey Samples

<table>
<thead>
<tr>
<th>Sample</th>
<th>Total Number</th>
<th>Percentage Female</th>
<th>Mean Age, years</th>
<th>Age Range, years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Interview Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent living</td>
<td>28</td>
<td>87.5%</td>
<td>84.4</td>
<td>69-98</td>
</tr>
<tr>
<td>Assisted living or skilled nursing</td>
<td>4</td>
<td>100%</td>
<td>89.25</td>
<td>87-90</td>
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<tr>
<td>Total</td>
<td>32</td>
<td>65.6%</td>
<td>85</td>
<td>69-98</td>
</tr>
<tr>
<td>Survey Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent living</td>
<td>103</td>
<td>65.1%</td>
<td>82.7</td>
<td>67-102</td>
</tr>
<tr>
<td>Assisted living or skilled nursing</td>
<td>6</td>
<td>21.1%</td>
<td>85.5</td>
<td>77-91</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>76%</td>
<td>82.9</td>
<td>67-102</td>
</tr>
<tr>
<td>Total Resident Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent living</td>
<td>255</td>
<td>69.8%</td>
<td>83.3</td>
<td>NA</td>
</tr>
<tr>
<td>Assisted living or skilled nursing</td>
<td>66</td>
<td>70.25%</td>
<td>90.7</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>321</td>
<td>70%</td>
<td>85.1</td>
<td>65-100+</td>
</tr>
</tbody>
</table>

*NA = not available.

Notes. Percentages may not total 100 because of missing data. Total numbers of residents in independent living (IL), assisted living (AL), and skilled nursing fluctuate by week; therefore, the numbers cited are estimates based on a typical day in the study period. Survey respondents were assumed to reside in IL unless the respondent specifically indicated otherwise or a researcher facilitated completion of the survey in AL or skilled nursing. Racial/ethnic identity is not included in the table because of a lack of variability: only one resident identified as non-European American (nearly 95% of residents in the state where Wintergreen is located were estimated to identify as “white alone” in 2017, according to U.S. Census Bureau, n.d.). Socioeconomic status (SES) is not included because the authors did not have access to this information; SES was assumed to be relatively homogenous and high given the substantial cost of entering and maintaining a residence at the CCRC.

Both interviews and surveys were administered over a 12-month period (throughout 2016) and posed a similar series of open-ended questions to guide and encourage respondents to share stories of particular aspects of their CCRC experiences. A university institutional review board approved all instruments and procedures before data collection began.
Interviews. The interview posed 19 open-ended questions regarding respondents’ histories and experiences at Wintergreen, including their perceptions of the community’s culture and QOL, interpersonal relationships, activities, organizational structure, and anticipated opportunities, challenges, and tensions. Questions were modified slightly depending on the interviewee. Of particular relevance, we asked all interviewees to discuss elements of the CCRC they believed were most important in defining and promoting—or alternatively diminishing—resident QOL. For example, what kind of difference, if any, has Wintergreen made in your life? How would you describe the community culture (or subcultures)? What has worked well and what has not, and what lessons might other CCRCs learn from Wintergreen’s experience?

All interviews were conducted by one of two female researchers with extensive experience in qualitative interviewing. Interviews were administered individually (except in two instances in which a husband and wife chose to interview together), and at a time and private place of mutual convenience, typically in the interviewee’s home or office. Each interview required 45 to 90 minutes and was audiotaped and transcribed verbatim. Interviewees were invited to review and edit their transcripts; five residents and six administrators chose to do so and made minor, primarily grammatical revisions.

Surveys. Through oral and written announcements, the research team invited all CCRC residents to complete an anonymous qualitative survey composed of 14 mostly open-ended questions (slightly condensed from the interview). Participation was encouraged through additional oral and written announcements on campus four times throughout the 12-month response period. Paper copies of the surveys (with an invitation and instructions) were distributed at a variety of central locations (e.g., mailboxes, front desk) where completed forms could also be returned to a locked box. Residents could opt to receive, complete, and submit the survey online (using Lime Survey on an anonymous secure server), or request that a researcher assist them in completing the survey (seven residents, three of whom were in assisted living or skilled nursing, used this option). The researchers subsequently entered the paper and facilitated survey data into Lime Survey.

Research Design and Data Quality and Verification

In qualitative research, verification procedures are used throughout data collection, analysis, and report writing to ensure high-quality trustworthy data and interpretation. Creswell (1998), Patton (2015), and others detail procedures, such as rapport building, for verifying the trustworthiness of data and findings. Creswell recommended using a minimum of two of several identified techniques to contribute to data reliability and validity; our data collection methods used many of these techniques. Interviews, for example, were

- completed in participants’ homes or offices, in the real context of their daily lives;
- preceded by building rapport between the interviewer or researchers and respondents;
- designed as a dialogue with open-ended questions, probes, and follow-ups that explored respondents’ opinions and subjective experiences;
- composed of questions that progressed from less personal to more personal to help respondents feel comfortable communicating about their experiences;
- conducted with guaranteed anonymity and confidentiality;
- audiotaped and transcribed verbatim to maintain rich detail and to emphasize respondents’ own words in describing their experiences; and
- collected across a 12-month period to minimize the effects of time-sensitive, short-term factors that may be less relevant to residents’ long-term experiences (e.g., weather, politics, a staff change).

Data Analyses and Interpretation

We imported complete transcripts of both interview and survey responses into HyperRESEARCH (ResearchWare), a software program for managing and coding qualitative data. In addition, we analyzed all data using an inductive approach to thematic content analysis to identify prominent and consistent themes across participants. With inductive analysis, the researchers allow categories to emerge from the data rather than impose them through theory- or research-driven hypotheses and assumptions (e.g., Creswell, 1998; Patton, 2015). Our inductive analyses and the resulting conceptual framework included
(1) “indigenous concepts” described by participants as they defined their own experience and thus derived directly from the data; and (2) “sensitizing concepts” developed by the researchers from previous research and experience to represent themes or patterns in the data (Patton, 2015). Although we began by analyzing interview and survey data separately, we soon combined them because the themes were virtually identical.

The analysis followed a recursive process (Braun & Clarke, 2006) that began with repeated readings of the transcripts and identification of passages that related to the various research questions. Three coders, each with extensive experience in inductive data analysis, identified individual free codes within a group of approximately 50 transcripts in an effort to characterize relevant concepts and ideas from participants’ responses. These free codes were then compared across coders and revised through consensus. We regularly reviewed the coded material of subsets of transcripts to ensure that all text assigned a common label shared a similar focus, and we recoded discrepancies based on consensus judgment. As we analyzed the full data set, we continued to add new codes and refine existing codes into smaller subcodes when appropriate. The goal was to generate a set of codes that reflected distinct themes or subthemes, yet all examples within a given theme or subtheme shared core similarities. Finally, the coders grouped individual themes to form meta-themes that conveyed overarching concepts or ideas. In most cases, the coders came to the consensus process having identified nearly identical codes because respondents’ themes were quite salient.

After completing thematic coding, we quantified the number of respondents who referred to a particular theme or subtheme to indicate its general prevalence. We should note that respondents who do not directly or spontaneously articulate a theme in a qualitative study might agree with the sentiment if asked directly. Therefore, the reported numbers of respondents who articulated specific qualitative themes likely underestimate (sometimes dramatically) those who actually endorse the ideas. We looked for patterns of responses associated with respondent characteristics, but were unable to identify any related to the study questions.

**RESULTS**

**Components of QOL Within the CCRC**

Inductive analyses revealed remarkable consensus among residents and administrators regarding dimensions that are most central to residents’ high QOL. Whether addressing the culture and organization of their own CCRC or recommendations for others, three meta-themes dominated responses: (1) sense of community and belonging, (2) active engagement, and (3) an integration of autonomy, independence, and respect (see Table 2). Below we summarize each and their interrelationships (including tensions). We then identify six groups of specific strategies that respondents identified for fostering these meta-themes to promote QOL in a CCRC.

**Sense of community and belonging.** Approximately 90 of the 153 interview and survey respondents pointed to the importance of sense of community. Residents, in particular, noted the value of “feeling connected,” “belonging,” “sharing experience,” “knowing you’re there for each other,” and “being somewhere you know you make a difference.” Approximately three dozen residents also referred to finding a new “home” and “extended family,” which many associated with a culture of safety, comfort, and companionship. Residents emphasized a community with shared goals, perspectives, and circumstances as integral to this experience. One resident referred to a “community with a shared vision … an unstated thread of unity, a way of approaching human relationships and activities.” Respondents argued that this does not suggest a lack of differences of opinion; rather, the community should be a place in which people can and do disagree but with confidence that others will listen and accept their differences. As one resident said, the community is similar to “a large extended family with many of the joys, agreements, frustrations, and disagreements this suggests,” but in the end “it remains a family you can trust and rely upon.” Another stated that being able to air differences “is just the way you keep a family healthy.”

Approximately 72 respondents identified camaraderie as central to this sense of community and belonging, leading to deeper ties with fellow residents. Residents concluded that the sense of community contributed to
greater compassion toward others in the community, which, in turn, increased their sense of belonging.

More than 45 respondents emphasized that an inclusive, egalitarian community invites greater sense of belonging, not only among residents but among “staff members [who] are also very much a part of the community,” according to one respondent. Another wrote, “The community moniker is present because we all function as a whole.” Respondents described this as generating a sense of pride and loyalty regarding the people who live and work there; specifically, there was “more loyalty to the total community than to individual activities or groups.” As an administrator stated, “a lot of ‘we,’ not a lot of ‘they.’ ”

Approximately 24 residents also asserted that a greater sense of community and belonging was encouraged by an ability to contribute to the community. As one declared, it is important to feel “part of a community in terms of giving back to community.” Another affirmed, “it’s nice to be a leader and feel like I am doing something worthwhile contributing to the community.” The relationship was described as reciprocal—opportunities to contribute in meaningful ways promote a sense of community, and belonging that generates satisfaction motivates one to contribute.

Resident-driven active engagement. Approximately 85 respondents touted the importance of living in a setting that promotes residents’ active stimulation and engagement with life—social, intellectual, and physical. The terms active, vibrant, engaged, curious, and involved were regularly emphasized. Many comments reflected those of an administrator, who said that residents “still want to be involved; they’re not finished with their own growth and interest in the world.” As one resident exclaimed, “I am not living on memories; I’m making new memories.” Another resident stressed the importance of being in an environment that focuses “on growth and development [rather than] somewhere that would narrow [our] world.” Similarly, a resident stated that it is important to be in a situation in which “You’re not coming to get packed in a box and be spoon fed. You’re expected and encouraged to be every bit as active and inquisitive as you’ve ever been.”

Approximately 35 respondents also emphasized the importance of maintaining a resident-centered or resident-driven community so that residents are fully involved in directing their daily activities rather than feeling bound to routines devised by others. As one resident stated, it is important that “residents are able and willing to remain in charge of their own lives and plans and be responsible for their own leisure and work activities.” Another advised,

<table>
<thead>
<tr>
<th>Component (n)</th>
<th>Sample of Residents’ Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of community and belonging (n = 90)</td>
<td>• The community moniker is present because we all function as a whole</td>
</tr>
<tr>
<td></td>
<td>• Being somewhere you know you make a difference</td>
</tr>
<tr>
<td></td>
<td>• A large extended family</td>
</tr>
<tr>
<td></td>
<td>• A community with a shared vision</td>
</tr>
<tr>
<td>Resident-driven active engagement (n = 85)</td>
<td>• I am not living on memories; I’m making new memories</td>
</tr>
<tr>
<td></td>
<td>• Feed [the residents] well and keep them warm and dry and get out of their hair. Really!</td>
</tr>
<tr>
<td></td>
<td>• You’re not coming there to get packed in a box and be spoon fed</td>
</tr>
<tr>
<td></td>
<td>• The more investment residents have in their own community, the closer the community becomes</td>
</tr>
<tr>
<td>Individual autonomy, independence, and respect (n = 68)</td>
<td>• You [must be] regarded as a real person and not a number</td>
</tr>
<tr>
<td></td>
<td>• Lack of interference with individual liberties</td>
</tr>
<tr>
<td></td>
<td>• [Have people] in control of their lives even as it becomes less and less controllable</td>
</tr>
<tr>
<td></td>
<td>• You can make up your mind about things and you’re not being towed around by anybody</td>
</tr>
</tbody>
</table>

Table 2. Respondent-Identified Components of High Quality of Life and Numbers of Respondents Who Noted Each Strategy
“Feed [the residents] well and keep them warm and dry and get out of their hair. Really!” They called for a culture that encourages members to pursue personal interests and share skills and information—a setting in which residents themselves recognize the wide-ranging experiences and talents they bring to the community; have the power to initiate individual and group activities; and are supported to share these skills and interests with one another.

One resident explained that it is important to live in a setting in which “you have the ability to express your own abilities and interests, and your own talents can grow. I think it’s one of the key things. You’re not turning over the authority to somebody else.” Another resident put it bluntly,

Retirement communities that control the residents’ activities are an insult to the character and intelligence of the residents. I believe that residents in a ‘life care’ community should be given the opportunity to be fully alive rather than, except when needed, to be treated as patients or inmates.

According to at least 25 residents and administrators, not only should residents be able to be actively engaged in the CCRC, they should be expected to be involved, because that encourages people to learn, grow, and cultivate new skills beyond their own expectations. Personal initiative and leadership were deemed important components of “living well.” One resident elaborated on opportunities to serve and lead: “I don’t know where I would have found the kinds of things that I’ve done here. I wouldn’t have thought in coming here that I’d be doing all of this.”

Individual autonomy, independence, and respect. Approximately 68 respondents prioritized the value of a strong sense of dignity, privacy, and worth of each individual, calling for “mutual respect” at the heart of the community. They echoed the words of an administrator who said that people should be encouraged to live as they wish so that “you don’t have to check your values at the door.” A resident stated, “You [must be] regarded as a real person and not a number.” Similarly, one resident described the importance of living among “fellow residents and caregivers who value me as a person.” Residents regularly reported that community acceptance, tolerance, and openness toward differing opinions and perspectives communicate a culture of respect and individual worth.

Respondents stressed that residents’ QOL depended on their having a “strong voice” and “lack of interference with individual liberties.” They frequently emphasized the need to keep community policies to a minimum and limited “to situations involving health or safety rather than simply convenience.” Likewise, respondents highlighted the importance of resident control in individual decision-making; one administrator referred to a culture that prioritizes having people “in control of their lives even as their lives become less and less controllable.”

Support and tensions between meta-themes. Amid strong consensus regarding the value of community, engagement, and autonomy for QOL, respondents acknowledged that these features of a CCRC not only supported one another but also sometimes challenged one another. As illustrated earlier, residents reported that as they become increasingly engaged in community activities, especially those they have actively helped to shape, they feel a greater sense of independence and control over their lives, as well as a sense of personal growth and belonging. On the other hand, approximately 36 residents and administrators noted that a culture of active community engagement can introduce unwanted pressure on those who feel less inclined to be involved, threatening their sense of independence and autonomy, as well as their sense of belonging. As one resident said, “Most residents enjoy interaction. Some residents don’t want to even speak to another person, which they [must be] allowed to do.” Respondents warned of the need to avoid what one resident described as “lots of pressure to do many things [and] a judgmental feeling against those who want a quiet and contemplative life.”

In fact, about 26 residents and administrators discussed the delicate balance that these pressures toward engagement and community demand, leading to a culture in which respect, privacy, and autonomy become even more important. As one resident wrote, “I appreciate the real choice and respect for privacy and involvement. I’m respected for my privacy; there’s room for it. There is sort of a hidden message [to be socially active], but not enough to make me uncomfortable.” A former administrator reflected that residents must “have the right to be left alone and to be alone.”
Strategies for Creating Community, Engagement, and Autonomy

Inductive analyses identified six prominent themes (see Table 3) in respondents’ commentaries regarding strategies for promoting QOL by enhancing community, engagement, and autonomy. While interconnected, these six clusters were typically addressed as distinct.

**Clearly stated organizational values.** Approximately 30 residents and administrators emphasized that CCRCs should be organized around clearly articulated community values that guide both resident and employee interactions. These values should guide programming, architecture, campus layout, dining, health care, and housing. As a resident advised, CCRCs should “focus on the values that fit with the organization’s goals and you will [attract residents and staff] who want to share those values,” contributing to a greater sense of community and engagement. Respondents emphasized that strong values should not mean rigid dogma—they must allow flexibility and responsiveness to residents as individuals. The organization must be nimble and able to change with social, political, and economic times, as well as with residents’ needs and interests. An administrator summarized the views of many when he said that the organization must always be willing to compromise “in terms of the scope of the program, … [for example] how many residents there would be, but never in terms of the values.”

**Resident-centered structure.** Roughly 113 respondents underscored the importance of residents being able to participate in meaningful ways in what many described as “the operation of the community” that goes beyond leisure activities. They pointed to the value of a strong and autonomous Residents’ Association that is independent of the corporate board, has its own budget, decision-making power, resident-initiated programs, and representation on the corporate board. Respondents argued that these

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**Table 3. Respondent-Identified Strategies for Achieving High Quality of Life and Numbers of Respondents Who Noted Each Strategy**

<table>
<thead>
<tr>
<th>Strategy (n)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly stated organizational values (n = 30)</td>
<td>Written statement of organizational values that is regularly disseminated and discussed among current and potential residents, staff, and corporate board</td>
</tr>
<tr>
<td>Resident-centered structure (n = 113)</td>
<td>Independent resident association with budget; resident representation on the corporate board; opportunities for meaningful resident leadership and engagement in community operations and resident programming</td>
</tr>
<tr>
<td>Environment that encourages ongoing, mutually respectful interaction and consultation among and between residents and administration/staff (n = 100)</td>
<td>Residents’ association with clear bylaws, democratic leadership, and decision-making open to all residents; staff and residents share activities, celebrations, campus services; regular campus-wide meetings of residents and administration/staff; resident participation in meaningful decision-making groups (including with corporate board)</td>
</tr>
<tr>
<td>Regular community meetings (n = 27)</td>
<td>Weekly or biweekly community meeting of administrators and residents, all of whom may contribute to the agenda</td>
</tr>
<tr>
<td>Infrastructure and landscape that promote interpersonal interaction (n = 32)</td>
<td>Centrally located mailboxes; shared walkways/trails, library/reading room, music and art studios, café, galleries, fitness facilities, dining services with open seating; campus-wide celebrations, performances, and activity groups</td>
</tr>
<tr>
<td>Limited community size and scale (n = 24)</td>
<td>Commitment to cap growth over identified periods; residences designed to create smaller neighborhoods, including indoor and outdoor spaces for socializing in each “neighborhood”; institutionalized strategies for welcoming and introducing residents to one another</td>
</tr>
</tbody>
</table>
features give “the residents a tremendous opportunity to [act],” to “have a sense of autonomy,” and to feel “like we are an important part of the community.” They agreed that residents’ schedules in AL and skilled nursing residences, as well as in IL, should provide individuals with as much control as possible over the timing and nature of their activities.

One resident said, “The more investment residents have in their own community, the closer the community becomes.” Examples of investment ranged from resident-led courses, presentations, activity groups, and event programming to campus furniture repair, recycling programs, and memorial services. Some respondents also emphasized residents’ opportunities to help staff in, for example, landscaping, interior decorating, and admissions tours. An administrator summarized, “The message [to residents needs to be] … this place wants to welcome you almost as a working member, and we expect you to be able to be in control of your life and a contributing member of this community until the end.” Residents urged CCRCs to “consider the residents your most valuable [organizational] asset.”

Almost every respondent who endorsed a resident-centered structure underscored the value of having residents devise and control resident programming (with additional staff-directed programming in AL and skilled nursing). Residents typically identified these resident-initiated groups—open to all community residents—as the key to fostering a sense of community, active engagement, and independence.

An environment that encourages ongoing, mutually respectful interaction and consultation. More than 100 respondents prioritized several strategies for maintaining a comfortable, respectful, and caring atmosphere that includes open, honest communication and interaction among and between residents and employees. These strategies include the following: (1) welcoming staff to share activities, celebrations, and services (e.g., dining, fitness) with residents; (2) a strong Residents’ Association with clear bylaws and open democratic leadership and decision-making; (3) resident participation in important decision-making groups (e.g., as voting members of the corporate board and planning committees); and (4) a structure for ongoing resident-administration communication (discussed later). As one resident said, Residents do not want their lives determined by “outsiders” who do not know or live life as residents; [rather, we want our community] to be “of the residents, by the residents, and for the residents,” with the outsiders helping to make that possible, instead of doing what they think “would be good for the residents.”

Weekly community meetings. Approximately 27 residents and administrators were emphatic that their weekly community meeting—Cup of Conversation—was important for other CCRCs to emulate. All residents from IL, AL, and skilled nursing are invited to gather weekly with the executive director to share information and raise questions (followed by refreshments). Resident announcements are prominent. Occasional guests include staff and specialists from outside the CCRC (e.g., experts in health, energy efficiency). Respondents described this weekly meeting as a key communication piece that binds the community together and promotes its resident-driven character by providing an audience for “anyone who wants to start a new group, activity, or project.”

Some explained that the benefits of weekly community gatherings extend well beyond the meetings themselves. A resident said, “I mean people come to “Cup” and they talk to each other … and [then] that communication happens at a much broader level. It leads to cooperation [across the community]. People see us as one big organization and not as a bunch of little ones.” Another resident described Cup “as the physical manifestation of a sense of community.” Many concurred that it is “an essential mechanism to continue good relations between administrators and residents.”

Infrastructure and landscape that promote interaction. Roughly 32 respondents asserted it was important for the community to have a variety of settings and structures that encourage informal mingling and socializing. In addition to the weekly community meeting described earlier, residents noted the value of having a coffee shop open much of the day, shared and intersecting walking trails, centrally located mail boxes (rather than home delivery), a library/reading room, shared craft studios, and dining
arrangements that allow individuals to sit with whomever they wish at different meals. One resident pointed to the need for “structures that encourage people to gather, to eat together, [and] create and enhance community.”

About 23 respondents emphasized the importance of connecting AL and skilled nursing residences directly to other campus buildings (or at least situating them nearby). They argued that this underscores the integrality of the AL and skilled nursing residents to the community. Also, on a practical level, this geographic proximity facilitates their community engagement and relationships with IL residents. As one resident remarked:

If assisted living, skilled nursing, and memory care are totally separated from independent living residents, the personhood of residents is not recognized. [When these residential units are centrally located or, better yet, connected] continual contact with friends and family can be maintained, which is as much a part of wellness care as anything else.

Limited size and scale of community. Two dozen residents asserted that if residents are to feel like a meaningful part of the community, size and scale must be limited. They acknowledged that it was not essential for everyone to be a friend or to know everyone’s name, but a sense of familiarity supports a feeling of belonging and ownership. Of course, if a community successfully encourages resident interaction, becoming acquainted in a larger group is possible. The shared mailroom, dining areas, activity groups, studios, and campus pathways promote familiarity.

Limited size and scale also was deemed important to “maintain, [the] culture, traditions, and spirit” of a coherent community. As a resident observed, it is important not to “expand beyond our ability to maintain our level of openness and inclusion.” Residents argued that the anonymity associated with large size and scale threatens a sense of community, belonging, and compassion for one another.

DISCUSSION AND IMPLICATIONS

Three dominant components of QOL were identified consistently by residents and administrators in the Life Care CCRC we studied: (1) sense of community and belonging, (2) active engagement, and (3) a combination of autonomy, independence, and respect. We also found remarkable consistency in respondents’ identification of six groups of strategies for creating and sustaining these elements of QOL: (1) clearly stated organizational values, (2) a resident-centered structure, (3) an environment that encourages ongoing and mutually respectful interaction among and between residents and staff, (4) weekly community meetings, (5) an infrastructure and landscape that promote interpersonal interaction, and (6) limited size and scale of community. Note that these practices generally require minimal resources and are easily translatable, not only to other CCRCs but to varied types of congregate housing for seniors; that is, they are easily achievable in diverse contexts.

Interestingly, research has demonstrated that the reasons seniors identify for wanting to “age in place” rather than move to congregate housing mirror the three elements for QOL we identified at the Life Care CCRC in our study (Wiles et al., 2011). Although many seniors desire to age in place to achieve such QOL, there are few livable communities and restricted resources to support aging in place, and pervasive ageist beliefs and policies make this practice even more challenging. Although programs are being developed to increase support to seniors who are aging in place (e.g., Bookman, 2008; Gonyea & Burnes, 2013), varied forms of congregate housing for seniors will continue to be needed. As these settings are developed and as existing options are evaluated, the very aspects of QOL that seniors in our study most valued (and that are also linked to aging in place) might be pursued and enhanced through the six groups of strategies that residents and administrators identified.

Our research is limited by the fact that this is a case study of one Life Care CCRC that is an independent, nonprofit with a relatively homogenous and (as is typical of CCRCs in general) privileged resident population. Each of these factors limits the generalizability of the study’s findings. In addition, although we heard from a large and representative segment of the CCRC’s residents, AL and skilled nursing residents were underrepresented. As with much research on residents in CCRCs and other seniors housing, we relied on self-reports at one point in time.
Moreover, we studied a Life Care CCRC, which ensures essentially stable costs across levels of care throughout a resident’s lifetime. Residents without such a plan might identify distinct financial and health care–related dimensions as central to QOL; in our study, residents integrated health and financial matters within the three components of QOL identified. Finally, these participants, like most residents of CCRCs, were almost all white and from middle- to upper-class backgrounds, and they entered the CCRC in good health. To address greater societal needs, researchers must conduct longitudinal studies involving larger numbers of seniors in varied forms of congregate housing and across a broad diversity of identities and social locations (e.g., racial group, religious affiliation). Mather LifeWays Institute on Aging, in collaboration with Northwestern University in Evanston, Illinois, is conducting a study of 90+ Life Plan Communities (see https://www.matherlifewaysinstituteonaging.com/agewellstudy/). Hopefully, other large-scale studies such as this will explore residents’ own context-dependent conceptions of QOL and the specific strategies residents identify as contributing to QOL as they define it. Such research should help us understand how CCRCs and other forms of seniors housing and care can offer supportive settings in which seniors can live with a QOL that they previously had assumed could be achieved only through “aging in place.”

ACKNOWLEDGEMENTS

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Online Marketing Practices of Assisted Living Communities in Oregon

Sarah Dys, MPA; Paula C. Carder, PhD; Sheryl Elliott, MUS

ABSTRACT

The Problem: Many state regulations for assisted living and residential care communities define social model principles such as resident choice, dignity, independence, individuality, privacy, and a home-like environment. Little research is devoted to how these communities market services using these principles and to whom marketing language is directed.

The Resolution: We analyzed websites representing 261 communities. The terms home-like setting and independence were used more frequently than resident choice and dignity. The majority of marketing text was not oriented toward a specific audience, and when the target audience was clear, it focused on current resident experiences.

Tips for Success: These findings might inform assisted living professionals about the salience of social model principles and their intended targeted audiences.

Keywords: Assisted living, online marketing, consumer decisions, internet
INTRODUCTION

Assisted living and residential care communities (broadly referenced as AL) are a growing sector of the long-term care market (Mollica, Houser, & Ujvari, 2012). Little is known about the messages that AL communities share with prospective consumers, though an early study described the use of social model terminology in print marketing materials (Carder, 2002). As originally conceived, AL was defined as a “social model of care,” with respect for residents’ independence, individuality, privacy, choice, dignity, and having a home-like environment included in many states' regulatory requirements (Mollica, Sims-Kasterlein, & O’Keefe, 2007; Wilson, 1990). Online advertising provides a novel but unexamined source for studying marketing messages. This report is based on an analysis of marketing content from Oregon AL websites. We compare the frequency of use of social model of care principles (e.g., independence, privacy, choice) to that in our prior analysis and identify the primary target audience for marketing messages.

BACKGROUND

AL is variously described as market driven (Stevenson & Grabowski, 2010) and needs driven (Harris-Kojetin et al., 2016). The market-driven aspect is evidenced by the increased number of AL settings over time as the private market responded to consumer dissatisfaction with nursing facilities and the lack of options for individuals with chronic health conditions and disabilities. Older persons prefer community-based services, including AL, over nursing facilities (Reinardy & Kane, 2003; Reinhard et al., 2014). The demand for AL is also based on the increasing number of older adults, especially those older than 80 who are most likely to need personal care assistance, health monitoring, and safety oversight (Finlayson, 2002; Smith, Borchelt, Maier, & Jopp, 2002).

In 1996, when our initial analysis of marketing materials was done (Carder, 2002), there were 66 AL communities in Oregon. As of 2017, there were 517 AL communities, a 683% increase. Based on informal discussions with AL professionals, the AL landscape has changed during this period with the entry of firms based outside of Oregon and an increasing number of large communities. The way AL communities communicate with consumers has also changed since 1996, shifting from primarily paper brochures to internet web pages.

Consumer Culture Theory

Consumer culture theory is a theoretical framework that explains forces affecting consumer identity, marketplace culture, and sociohistorical patterns of consumption (Arnould & Thompson, 2005; Askegaard & Trolle Linnet, 2011). This theory describes a process through which consumers engage with marketing materials and internalize messages, thus informing their self-identity. For example, cosmetic companies, recognizing the link between youth and beauty in Western countries, have successfully marketed their products as necessary to a woman’s identity (Gillear & Higgs, 2014). Consumers choose “brands” that represent qualities with which they identify, such as being rugged, healthy, or environmentally conscious. Based on this theory, AL marketing materials might reflect and shape the identities of consumers, including older adults, their families, friends, and others who might advise them on the choice of a community.

Marketing Long-Term Care and AL

The audience for marketing long-term care services includes potential residents and their family members, as well as professionals (such as physicians, case managers, and hospital discharge planners) who refer clients to long-term care. Little research has been conducted on consumer aspects of AL. An early study identified marketing challenges faced by AL communities, such as increasing awareness about the AL concept, communicating the attractiveness of AL compared to alternatives, and describing how the operator’s program differs from those of competitors (Thornton, 1996). A state-wide survey of Arkansas households reported that the top two service criteria for selecting an AL were personal security and affordability, and the top amenities were chapel/religious services and full kitchens (O’Bryan, Clow, O’Bryan, & Kurtz, 1996). Reinardy and Kane (2003) surveyed residents of AL and nursing facilities (NFs) in Oregon about the decision to move. The majority of residents indicated that family members influenced the decision to move into an AL or NF (70% and 65%, respectively); in addition, fewer AL residents than NF residents were influenced by a physician (28% versus
50%). These findings indicate that both prospective residents and families are involved in the decision to move into an AL community.

A “one-size fits all” AL marketing approach cannot reach different target audiences (Clow, O’Bryan, & O’Bryan, 1999). For persons aged 55 and older, long-term care choices are driven by direct need, such as hospitalization or physical/cognitive decline. Those younger than 55 follow a traditional consumer process of gathering information, planning a visit, developing attitudes and opinions, and making a decision (Clow et al., 1999). Baby boomers are involved in both their own and their parents’ long-term care decisions, and producing marketing materials that meet the expectations of these two groups can present challenges (Laurence & Kash, 2010).

An ethnographic study (Carder & Hernandez, 2004) described how AL messages used social model concepts in both symbolic (e.g., independence, privacy) and practical (e.g., private apartments, assistance with personal care) terms. A content analysis of print marketing materials used in 63 AL settings in Oregon found that resident independence was the most frequently used social model term (Carder, 2002). In the past several years, consumers have increasingly turned to the internet as a source of information about service availability, and the amount of data stored on the internet provides a unique opportunity for content analysis.

To our knowledge, no other researchers have analyzed AL websites. Understanding how AL communities market their services is important for the following reasons: (1) AL represents an important service to large numbers of older adults and their family members; (2) many states have regulatory provisions to protect residents, such as requirements for marketing content and consumer disclosure; and (3) marketing materials provide researchers with a source for understanding how older adults are represented in contemporary society. We use consumer culture theory and content analysis to explore the following research questions:

1. How do AL communities conceptualize social model principles on their websites?
2. Has the frequency of use of social model terms in AL marketing changed over time?
3. Who is the target consumer of AL marketing content: prospective residents or loved ones?

**METHODS**

**Sample**

We began with a publicly available list of all AL communities in Oregon, totaling 517 as of July 2017. We removed communities designated for “memory care” because they have additional regulations that might result in marketing that differs from that for traditional AL communities. After removing memory care communities, the sample consisted of 296 communities. As our focus was on websites maintained by the ALs, we did not include the 35 facilities that had no website or that had only a Facebook page, because Facebook has the potential for two-way communication between site owners and consumers (Kim & Kuljis, 2010). Finally, some AL communities were owned/operated by chains, resulting in multiple websites with identical content (other than the building address). After duplicate websites were eliminated, the final sample included 113 unique websites representing 261 communities.

To provide context for the types of consumers who might access the marketing materials described in this article, we present community and resident characteristics based on a recent survey of 308 Oregon AL communities (Table 1) (Carder, Tunalilar, Elliott, & Dys, 2017).

**Content Analysis**

Content analysis is a method of systematically analyzing narrative text such as that in newspapers, websites, books, legal documents, blogs, and other sources of written words (Schreier, 2012). The process of content analysis includes counting the use of specific words or phrases and analyzing the implied meanings of words.

We separated each AL community website into three sections based on the probable location of consumer-related information: home page, “about us,” and services/amenities. In a study of 516 internet users, 90% identified company branding and “about us” links in viewers’ mental conceptualizations of company web pages (Roth, Schmutz, Pauwels, Bargas-Avila, & Opwis, 2010). Home
pages provide a first impression, and the “about us” page includes information about organizational values and history, mission statements, and owners. Services/amenities web pages typically list available services and amenities. Of 113 unique websites, 7 did not have text on their home pages, 93 had an “about us” page, and 104 had a separate services/amenities page. Typically, information about the organization’s mission and values and available services appeared on home pages.

We considered sentences to be the main unit of analysis within each website, as is common in content analysis (Schreier, 2012), and based on our previous research (Carder, 2002). Using complete sentences allowed us to examine the context, or meaning, of social model terms. We defined a sentence as a string of words that contained subject–verb structure and ended with a period punctuation. Text was copied directly from each web page and pasted into a qualitative data analysis program (Atlas.ti, Scientific Software Development, 2018). Eighty-five sentences, or 2%, were duplicate text, and were excluded from word and sentence counts. Duplicate text was defined as identical sentences appearing more than once in a website. We identified 3,745 nonduplicate, grammatically correct sentences for analysis.

### Coding social model terms
Social model terms defined in state AL regulatory documents were included for analysis: choice, dignity, independence, individuality, privacy, and home-like environment (Department of Human Services Aging and People with Disabilities, 2018). Analytic codes based on these terms and their derivatives (e.g., choice, choices, choose) were applied to the sentences. If a term appeared in a heading or an organizational title, was not in a sentence structure, or did not fit the regulatory definition, it was excluded from coding to avoid inflating the frequency. For example, the term independence was coded if it directly referenced fostering independence for residents. For instance, “Most senior living residents wish to maintain as much independence as possible, while still having the sense of security that is provided by trained, caring staff.” References to independent living on the website or as part of a community’s name were not coded: “We offer independent living, assisted living, and memory care services on one campus.”

### Coding target audience
We applied analytic codes to sentences based on target audiences (e.g., resident, family, loved one). Use of second-person language (e.g., you, yours, you will) and descriptors guided coding for target audiences. We coded every complete sentence on each website based on one of four implied target audiences: (1) residents, (2) loved ones, (3) undetermined, and (4) no audience.

Some sentences lacked enough contextual clues to determine if the second-person language used was directed toward residents or their loved ones. We coded these cases as “you,” indicating that the sentence contained audience-oriented language, though we could not determine the specific audience.

To increase intercoder reliability, we divided the sample evenly among three coders, with approximately 42 websites per coder. Five websites were triple coded and assessed for consistency using a sentence-based comparison. Each sentence was assessed for coding discrepancies, which were resolved by means of majority agreement (i.e., two of three coders) or team discussion.

### Table 1. Characteristics of Oregon Assisted Living and Residential Care Communities, 2017

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Assisted Living</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of communities</td>
<td>225</td>
<td>292</td>
</tr>
<tr>
<td>Number of units</td>
<td>12,615</td>
<td>9,176</td>
</tr>
<tr>
<td>Licensed capacity</td>
<td>15,035</td>
<td>11,226</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;50 beds</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>50-99 beds</td>
<td>65%</td>
<td>22%</td>
</tr>
<tr>
<td>100-149 beds</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>≥150 beds</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Payer sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private sources</td>
<td>56%</td>
<td>45%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>39%</td>
<td>48%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Resident demographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>90%</td>
<td>86%</td>
</tr>
<tr>
<td>Female</td>
<td>72%</td>
<td>59%</td>
</tr>
<tr>
<td>Age ≥85</td>
<td>56%</td>
<td>42%</td>
</tr>
</tbody>
</table>
RESULTS

Social Model Term Use

At least one social model term appeared on each AL website (range, 1 to 35 coded references). On average, websites contained eight sentences mentioning social model terms. Independence and home were the most frequently referenced social model terms, and they switched in rank between 1997 and 2017 (Table 2). Compared to 1997, there were more mentions of home than of independence. The use of home declined between 1997 and 2000, but this social model term was the most commonly used in 2017. Mentions of individuality increased between 1997 and 2000, but decreased by 11% in 2017. Dignity was mentioned least often across all years. The following are examples of the context in which these terms were used.

Home-like. The principle of “home” was described as a feeling rather than a physical place: “Make yourself at home where a happy, healthy lifestyle goes hand-in-hand with your personal fulfillment, enrichment, and growth.” Small community size, meals, and personalization were emphasized as aspects of a home-like atmosphere, and some AL websites described their food services in the context of living at home: “We are known for the home-cooked type menu, and snacks are available round the clock.”

Independence. Independence was described as a value inherent to a fulfilled life: “We value independence and help our residents thrive at each stage of retired life.” At the same time, loss of independence was recognized within the context of declining health (e.g., “the unavoidable yet natural stages of aging frequently rob us of our independence”). Descriptions of independence were often linked to residents’ service needs. For example, “Folks enjoy an independent, fulfilling lifestyle, with services that meet their needs,” and, “Sometimes all a person needs to appreciate a full and independent life is a little assistance with routine daily activities.” Some communities conceptualized levels of assistance on a spectrum: “Whether you’re completely independent or require more assistance, our facility and staff are well-equipped to ensure you receive the dignity, respect, and excellent quality of life you deserve.”

Individuality. The websites conveyed an overarching sense of catering to individual needs within a community context: “We treat the person, not the disease, and put each individual’s choices and experiences at the forefront of their care.” AL marketing emphasizes individuality in all aspects of the community, including environment, care needs, and lifestyle: “Our top priority is asking, listening, and responding to our individual resident’s personal lifestyle preferences.” Individuality recognizes AL residents as diverse, with different needs and desires. For example, “[Person-directed care] embraces each individual’s values, routines and preferences” and “We support ‘individuality’ by recognizing variability in residents’ needs and preferences and having flexibility to organize services in response to different needs and preferences.”

Table 2. Comparison of Social Model Term Use, 1997-2017

<table>
<thead>
<tr>
<th>Social Model Terms</th>
<th>1997</th>
<th>2000</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mentions</td>
<td>% Total</td>
<td>Rank</td>
</tr>
<tr>
<td>Independence</td>
<td>240</td>
<td>27.1</td>
<td>1</td>
</tr>
<tr>
<td>Home</td>
<td>176</td>
<td>19.9</td>
<td>2</td>
</tr>
<tr>
<td>Individuality</td>
<td>154</td>
<td>17.4</td>
<td>3</td>
</tr>
<tr>
<td>Choice</td>
<td>153</td>
<td>17.3</td>
<td>4</td>
</tr>
<tr>
<td>Privacy</td>
<td>101</td>
<td>11.4</td>
<td>5</td>
</tr>
<tr>
<td>Dignity</td>
<td>60</td>
<td>6.8</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>884</td>
<td>100.0</td>
<td>6</td>
</tr>
</tbody>
</table>
Privacy. Privacy was defined in terms of space and attitude. For instance, “the privacy of apartments that feature shared community spaces, such as dining and activity areas, with the assurance of 24-hour medical staff,” and, “To protect your privacy, our staff will always knock and ask permission before entering.”

AL organizations recognize that residents are adjusting to a new home and joining a community: “Our assisted living suites become your private home, filled with your own furniture and special treasures, and brightened by large windows that allow natural light to flood in.”

Choice. Many websites referred to resident choice and involvement in decision-making processes: “We believe choice is a big part of life’s happiness and well-being.” Communities conceptualized choice with regard to care, service planning, food, and the physical environment. The websites described residents’ agency over their schedule and personal care plans. For instance, “ ‘Choice’ is supported by the provision of sufficient private and common space within the facility that allows residents to select where and how to spend time and receive personal assistance.” In describing amenities and dining, communities emphasized a diversity of options, as in the following: “Enjoy fresh, healthy choices that are always in season” and, “From the library and shopping to music concerts and lake trips, residents choose from an engaging and meaningful schedule of events.”

Dignity. References to dignity included treating residents as individuals and with compassion and respect: “Dignity is treating every resident with individual value and respect,” and, “We provide dignified care to seniors in a compassionate environment.” Other websites highlighted how dignity is actualized: “to promote dignity for each elder by appreciating them as unique individuals with a rich background, by supporting their abilities, and by compensating for disabilities so that the elder feels useful and successful.”

Targeted Audiences

Of 3,745 total sentences, 41% were oriented toward residents or loved ones. The majority of sentences oriented toward a defined audience were resident-based, mostly describing experiences of current residents. Less than 3% of sentences were oriented toward an undetermined audience. However, the majority of sentences on these websites were not directed toward residents or loved ones of residents. This finding suggests that communities provide general information for anyone who traffics these websites, including prospective residents, families, state agency staff, and others.

Resident-based. Resident-based text described the experiences of current residents. The phrases “our residents” and “our clients” were common. Other resident-based text included present tense descriptions of community life: “Residents enjoy music, art, friendship, crafts, cooking, exercise, and much, much more!” Another website stated, “In fact, our members often refer to each other as ‘family’ even though few of them knew each other prior to becoming members.” Some websites described hobbies and activities for residents to explore. “The green thumbs among our residents have opportunities to participate in light gardening in our raised beds or simply enjoy the natural beauty and serenity of our secure inner courtyard.” A frequent message highlighted the opportunity for residents to socialize, learn, and enjoy retirement: “Whether it’s curling up with a good book in our sunlit courtyard, participating in a lively exercise class, or simply spending quality time with family and friends, we want you to live your retirement to its fullest.”

The use of future tense was the primary indicator of messaging directed toward prospective residents. “You will partake in daily events and activities that incorporate social interaction and fulfill all desires for entertainment.” Some text highlighted what a potential resident could expect: “As a resident, you will relax in an apartment decorated and furnished with your own personal touch and belongings.”

Marketing strategies to prospective residents sometimes focused on disentangling AL from negative aging stereotypes. For example, “Are your kids trying to get you to move in with a bunch of old people?” Other messages recognized the challenge of living with decline: “If you’ve been struggling in the kitchen, the joy of cooking has been replaced by the fatigue of standing at the sink and stovetop.” Moving to AL was framed as a solution. “You’re retired from work not from life. At [our] communities we’ll take care of the details so you can get on with
your life. You’ve got better things to do: invent, create, give back, learn, mentor, play, relax, dream.” Another strategy suggested that choosing AL fosters prospective residents’ personal growth. “Become a watercolor artist, a poet extraordinaire, or the voice of a classic children’s book.” While personal care is an important AL service, communities described respite from the responsibilities of daily life: “It’s like staying on a year-round vacation.”

Loved ones. Text coded for “loved ones” described family or friends of residents. “The earlier you start the conversation, the easier the transition can be on your parent or loved one.” Communities addressing families of potential residents emphasized common values, assurance for residents’ safety and security, and recognition of family members as caregivers. Some communities focused on empathy and identifying common understandings with families: “When it comes to our residents, the things that matter to us are the same things that matter to you.” This message suggests that communities try to appeal to the identities and value systems of family members as primary consumers. Recognition was given to family members who often acted in a caregiving role before seeking AL. “While many families and caregivers enjoy caring for loved ones at home, sometimes the physical, emotional, and financial toll can be overwhelming.” In addition to creating common ground, some communities addressed families using an educational or advisory tone. “If you are helping a loved one move, remember to honor their choices and that this is likely an emotional process for them as they say goodbye to the home they’ve known.”

DISCUSSION

This analysis of AL community marketing materials is unique in focusing on company websites. We found that similar to an earlier analysis of print marketing materials (Carder, 2002), the social model terms continue to be used in online marketing. The majority of text targeted toward a specific audience is resident focused and primarily describes the experiences of current residents. However, our analysis revealed that most text is not oriented toward a specific audience.

The continued use of the social model terms over time, and in roughly the same rank order, indicates the value of these principles for marketing AL. It is noteworthy that the percentages for each social model term have stayed relatively constant over 20 years (Table 2). The value of marketing AL using these terms is further evidenced by research on residents’ preferences. Perceptions of privacy influence resident satisfaction (Street, Durge, Quadagno, & Barnett, 2007). In addition, choice is central to person-centered care (Crandall, White, Schuldeis, & Talerico, 2007), with food choices being an important quality and satisfaction indicator (Ball et al., 2000; Strohl, Bednar, & Longley, 2012).

Strategies for marketing AL services may be compared to those for other types of health and social services, such as palliative and hospice care and funeral services. Similarities among these sectors include the following: the consumer typically lacks familiarity with the services; the consumer resists purchasing the service; the purchaser might not be the primary consumer of the service; and these types of services are typically purchased during a period of emotional stress, with little to no planning. Such a purchase might be made only once in a lifetime. Based on our analysis of AL websites and a review of the literature on marketing similar services, the following conclusions are drawn.

Consumers generally lack information about health and social services. Thus, marketing materials serve an educational role. A study of nursing home quality ratings reported that when consumers are not well informed, competition between facilities is limited (Kontezka & Gray, 2017). Similarly, marketing funeral services requires educating the consumer about the available services and how to assess quality among providers (Korai & Souiden, 2017). AL marketing materials may be used to educate prospective and current clients, their relatives, and the broader community, including health and social service providers (e.g., physicians, hospice agencies) who deliver services to residents. Descriptions of current residents’ experiences educate consumers about what it is like to live in an AL community. Language directed toward families might educate them about late-life transitions.

Some health and social services are needed but not wanted. In the United States, end of life and death are generally avoided topics. For example, Matthews, Peters, and Lawson (2017) described marketing hospice and palliative care services as an “odd endeavor” given that
Americans prefer not to think about death. Similarly, Americans have a “culture of not planning” for long-term care (San Antonio & Rubinstein, 2004). Families play a major role in making decisions about these types of unwanted services (Korai & Souiden, 2017).

Limitations

This study has limitations. First, the sample of websites is limited to Oregon and might be unique to that state. However, focusing on Oregon allowed for comparisons over time, and many national chains have a presence in multiple states. Second, we did not include images or graphics in the analysis, which might have informed us about the way AL is marketed. Finally, we did not include communities designated for dementia care. However, nationally, only 22% of AL communities have this designation (Harris-Kojetin et al., 2016), and few states license or certify dementia care (Carder, 2017), limiting the generalizability of including dementia care communities.

Future research might compare websites for companies with AL communities in multiple states to assess whether content varies because of state regulations or other state-specific factors. As noted in Table 1, Oregon AL residents are primarily white and non-Hispanic; how AL is marketed to diverse racial and ethnic groups should be examined. Future research should examine the use of graphics to illustrate both resident experiences and community culture. Comparing traditional ALs to those that specialize in dementia care would inform our understanding of consumer disclosure of specialized services. Finally, we lack an understanding of how consumers interact with online content, including what they find useful, and any details that would better prepare them for making a challenging and expensive decision.

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Stevenson, D. G., & Grabowski, D. C. (2010). Sizing up the market for assisted living or nursing home care in Oregon. *Journal of Applied Gerontology, 29*(1), 369-375. doi.org/10.1080/07334640903381279


A Framework for Expanding and Enhancing University-Based Health Administration and Aging Services Programs Across the United States

Douglas M. Olson, PhD

ABSTRACT

The Problem: As the senior health care industry faces unprecedented labor shortages and increasing demand for services, health administration and aging services leaders are tasked with finding actionable solutions that attract and retain qualified professionals. One key area of need is administrative leadership positions to manage care and service organizations. Although a large undertaking, developing a landscape that supports the expansion and growth of university-based educational programs for senior care administration will help to solve the problem.

The Resolution: Position the health administration and aging services profession as a mainstream, publicly recognized, and valued career choice. Seven themes emerged from researching this issue: (1) Enhance the professional image; (2) Provide field experiences; (3) Build partnerships between universities and other organizations; (4) Provide clear career paths; (5) Expand academic programs across the country; (6) Develop an aspirational model; and (7) Document the profession's profile and explore the impact of leadership on outcomes.

Tips for Success: Obtain feedback, formal buy-in, and support from a large number of stakeholders who will work together to solve this problem.

Keywords: Health administration, aging services, leadership development, university-based programs
INTRODUCTION

The field of health administration and aging services does not have a strong portfolio of educational programs. Programs accredited by the National Association of Long Term Care Administrator Boards (NAB) are a proxy measure of this portfolio. Currently, there are 13 NAB-accredited programs in the United States, with an estimated 500 students and a wide variety of enrollments. Of the 13, four are located in Ohio, which suggests a limited geographic spread. A broader review of programs offering health administration and aging services affiliated with other educational associations and accrediting bodies revealed a less than robust interest in the professional education and training of people interested in jobs in this discipline (e.g., skilled nursing facility administration, assisted living management, seniors housing leadership, and coordination of home and community-based services). This deficit is also reflected in provider groups’ lack of awareness of partnerships between academic institutions and association groups.

This commentary outlines challenges and opportunities related to university-based programs, and identifies key areas that must be addressed. To examine these issues, I reviewed the literature with assistance from student research assistants, held discussions and focus groups with stakeholders, reached out with assessments and surveys, and recommended an approach to develop a national strategy for advancing and expanding strong, robust, university-based educational programs for senior care administration. This approach requires a partnership model and assumes that no one stakeholder can solve this problem alone. Collectively approaching these challenges and opportunities, we can make a national impact.

BACKGROUND AND CONTEXT

The U.S. senior care industry is facing numerous challenges. First, the senior population is growing (Cohn & Caumont, 2016). Second, since the turn of the century, senior care organizations have been under increasing pressure to transform themselves to meet the changing demands of consumers (Dana & Olson, 2007). Third, the average age of a health care and aging services administrator is older than 50 years (Castle, 2001). This problem is compounded as more professionals leave the health care administration field than enter it (Tellis-Nayak, 2007); in addition, there is a scarcity of strong senior care administration programs to educate and train future leaders (NAB, 2007). Given these challenges, the profession is facing a crisis that requires a coordinated, comprehensive plan to build a strong portfolio of educational programs focused on developing senior care leaders throughout the country. Because there are few strong university-based programs available, the identification of key attributes, factors, and requirements for strong academic programs is needed to ensure the profession’s continued success.

METHODOLOGY

This project used a mixed methodology approach to collect feedback from stakeholders. The goal of this sabbatical project conducted by the author was to understand key challenges and opportunities facing the development of new leadership in the senior care and services field, the expansion of university-based programs, and the enhancement of existing programs. Data and input were obtained in the following ways:

1. A sabbatical steering committee provided informal and formal feedback. This committee was selected to represent a wide variety of stakeholders (Appendix A). Committee members provided formative opinions, completed a survey expressing their individual and organizational insights, and weighed in quarterly on project progress.
2. The sabbatical steering committee also recommended inclusion of additional perspectives by reaching out to more than 30 technical experts for their opinions. Communication with these individuals furthered the committee’s ability to examine the challenges and opportunities facing the profession.
3. Using a SWOT (strengths, weaknesses, opportunities, and threats) matrix approach (Johs & Olson, 2017), the committee studied 19 NAB academic program accreditation reports. The overall conclusions of strong marketing needs, importance of solid field experiences, need for partnerships with the field, and importance of university quality and support served as initial grounding for the sabbatical project, and are expanded on in Appendix B.
4. Numerous focus groups were conducted with a variety of organizations and associations representing new
leaders, existing providers, educators, and association leadership. Associations represented included the NAB, American College of Health Care Administrators (ACHCA), American Health Care Association and National Center for Assisted Living (AHCA/NCAL), National Investment Center (NIC), LeadingAge, Argentum, and American Seniors Housing Association. In addition, representatives from the Centers for Medicare & Medicaid Services (CMS), the home and community-based services field, emerging leaders, and universities, as well as their related associations were consulted.

5. Formal surveys helped to prioritize and delve into the issues and opportunities with both emerging leaders and established universities. The past attendees of the National Emerging Leadership Summit (NELS), which represents a wide variety of leaders with experience in the first 10 years of their profession from both the for-profit and nonprofit senior care sectors, represented emerging leaders. The response rate for this group of 129 was 31%. The list of university program directors was drawn from public sources sharing various accredited health administration programs with an interest in aging services. The response rate for this group of 140 was 33%. The leadership surveys were sent to both the sabbatical steering committee and the board members of the Center for Health Administration and Aging Services Excellence at the University of Wisconsin (UW)-Eau Claire. The response rate for this group of 56 was 80%.

Synthesis of the collected data helped reveal seven themes. This commentary presents a strategic framework that advances the development of a national plan for a robust network of university-based senior care administration programs across the nation. Included is a list of the goals and insights along with the necessary steps to achieve each objective.

KEY THEMES AND RECOMMENDATIONS

Through the above-mentioned research, focus groups, and other outreach efforts, the sabbatical steering committee has supported the advancement of a number of important themes, with an understanding that the order of importance may depend on the stakeholder’s perspective. This section presents an overview of the seven themes (Table 1), with highlights encouraging action, a broad strategy, initial objectives/tasks, specific comments for consideration, and some available resources.

Table 1. Themes Identified for Further Development

The seven themes identified include the following, which are necessary for further development of health administration and aging services programs:

1. Enhance the professional image
2. Ensure the availability of administrator-in-training and other field experiences
3. Build strong partnerships between universities and organizations
4. Provide clarity regarding career paths
5. Expand academic programs across the country
6. Develop an aspirational model
7. Update applied research to both document the profession’s profile and explore the leadership impact on outcomes

Theme 1: Enhance the Image of the Profession

A major public relations campaign is needed to address the poor image of the senior care administration profession. The next generation of leaders is motivated by the desire to make a difference (passion) in the community and enjoyment of the multitasking requirements of the profession. Emerging leaders have consistently shared this message (NELS, n.d.). Career choices are motivated by a congruence of an individual’s interests and an understanding of what the profession entails (Law, 1981; Parson, 1909); the profession needs to pay attention to this message when advancing a public relations campaign. Unfortunately, there are not enough university-based programs, and many emerging leaders are finding this profession by chance.

Strategy. Develop a positive public relations strategy and rebranding of the profession.

Objectives/tasks.
- Review past efforts and current initiatives underway by stakeholder groups (e.g., NIC, LeadingAge)
• Assemble a team that includes perspectives outside the traditional skilled nursing facility and assisted living disciplines, including home care, hospice, and seniors housing.

Comments. The traditional senior care field has a lot to learn from other groups. For instance, one hospice care provider focused on how we tend to overprofessionalize what we do rather than just focus on our impact on residents and their loved ones. There is also much to learn from the emerging leaders themselves; two consistent messages from NELS participants are the desire to make a difference and their interest in ongoing professional development opportunities available from their employers. Hopefully, we have largely moved away from the negative stigma of the nursing home administrator label; however, this profession still suffers from the lack of accepted, consistent, and positive terminology to describe the practice of health administration and aging services.

Resources. The full national report includes responses from emerging leaders across the spectrum of services, and it contains a wealth of insight. For example, one emerging leader commented:

While it is not a sexy field because of the demographics, [health administration and aging services] is an exciting field with lots of career opportunities. I also do not think we tell a good enough story about the tremendous impact administrators have on their employees', residents', and families' lives each day.

Current reports also are focused on the tremendous opportunity ahead for the next generation of leaders (Argentum, 2017; Senior Housing News, 2016), along with the NELS participants. The groups of emerging leaders shared another popular theme: “do well by doing good,” a quote that has been attributed to Benjamin Franklin (Embley, 1993; Field, 2007).

Theme 2: Expand the Availability of and Support for Administrator-in-Training (AIT) and Field Experiences

Because the AIT/field experience is one of the strongest elements of education, a greater emphasis must be placed on it. A stronger educational experience for administrators correlates to better care outcomes (Castle, Furnier, Ferguson-Rom, Olson, & Johns-Artisensi, 2015). Currently, this essential component is fraught with a set of challenges, including limited availability, standardization of experiences, and a lack of funding. Recognition of senior care as an attractive career option requires ending the practice of unfunded AIT/field experiences. This unique and mutually beneficial opportunity could provide a fundamental advantage to our educational programs and should be leveraged as a strategic advantage in marketing to incoming or transitioning students. With that understanding, emerging leaders and academics clearly identified this as a major challenge (Figure 1) for the profession. As one emerging leader stated, “Provide real world experiences and internships—they are a key.” The limited availability of AIT/field experiences and lack of funding need to be fixed.

Strategy. Ensure that AIT/field experiences are available, valuable, and funded, so that we have a sufficient supply for emerging leaders.

Objectives/tasks.
• Advance NAB and ACHCA developed programs, such as the preceptor-training course and AIT resources, as well as other assets across the country.
• Advance association efforts to assist emerging professionals with appropriate internships and field experiences that support a smooth transition from education to practice.
• Based on the importance of paid, funded AIT experiences, initiate a dialogue with CMS and other payers about the need for reimbursement.

Figure 1. Emerging Leader and University Program Director Perspectives
Comments. NAB is advancing a standard 6-month field experience as a national minimum standard of practice for the AIT/field experience. There also is a need to share best practices from successful, university-based programs (Olson, Johs-Artisensi, & Vaughan, 2013); other provider initiatives, including corporate AIT and Executive Director in Training (EDIT) programs used by regional and national providers; and other association efforts (e.g., NIC internship program). One idea shared during the one-on-one interviews with technical experts was the need to consider some type of central clearinghouse that would make AIT opportunities readily available across the country (however, a recent NAB/ACHCA task force did not adopt this initiative). A national standard of licensure would be a welcome change, and the sabbatical committee encouraged the efforts of all parties to advance this initiative. Recently, NAB has advanced the Health Services Executive model, which crosses the continuum of skilled care, assisted living, and home and community-based services. One aspect of this model is an option for states to accept candidates verified through the Health Services Executive process for license portability across states. This recent NAB initiative has made progress, with a number of states adopting or considering adoption of this model.

Resources. Clearly, the preceptor and AIT resources available from NAB and ACHCA (NAB, 2018) are some of the best in the field, along with other related field experiences or internship models.

Theme 3: Build Strong Partnerships

Partnerships between senior care organizations and provider associations are critical for a successful university-based program, and we need to identify and share high-impact approaches and practices. Strong partnerships start with a mutual understanding of the shared goal of developing future health administration and aging services talent.

Strategy. Identify the needs of the various partners and successful high-impact practices, including what it takes to ensure productive, successful relationships. A journal article on senior care and education partnerships is in development and will be available as a resource for all key stakeholders.

Objectives/tasks. Ensure that stakeholders understand the differences in language, agendas, and purposes of relationships. Furthermore, share high-impact practices and explore the business case for working together.

Comments. Mirroring the essential AIT/field experience agenda that is shared by providers and universities, all stakeholders have a natural connection and partnership on which to build. Leveraging this partnership opportunity has a number of win-win features for students, emerging professionals, providers, associations, universities, and, ultimately, the customer. The shared goal is to develop the best talent to lead organizations that will serve disabled and frail individuals in the years ahead by using our time, talent, and resources wisely and proactively. This area of focus also requires the inclusion of university leadership, with which we have had limited engagement thus far. We are just starting the conversation with university administrators to develop the business case for investing in and supporting senior care administration programs.

Resources. A number of supporting documents in the full sabbatical report reference the importance of and features necessary for good partnerships between the profession and academia. Appendix C presents thoughts on what is needed to gain the support of university administration. Successful partnerships already exist. They highlight the natural opportunities available and could serve as role models.

Theme 4: Articulate and Clarify Career Paths for Emerging Leaders

We need to highlight and promote the career opportunities within this profession. We have tremendous job placement and ongoing career opportunities, such as exceptional conferences and internal organizational advancement, which are an understated upside of this profession. Support for emerging leaders and thoughtful talent development strategies are important to the organizations and, ultimately, the profession.

Strategy. Outline and categorize all of the existing initiatives and make recommendations for future opportunities to highlight both career opportunities and talent development strategies.
Objectives/tasks. Using a consolidated document, collect information and describe the programs, such as association leadership programs and mentoring programs, in a central access place for individuals or a shared-site approach.

Comments. Sharing information about existing programs is a resource that will serve us well. Emerging leaders are attracted to organizations that offer career development options leading to advanced education or job promotion opportunities. The career development considerations focus on the emerging leader coming from a traditional, early career path associated with a university-based program; a midcareer individual who may or may not be associated with a university; and the internal organizational resources necessary to support all individuals navigating their career progression. An additional consideration is the broader landscape of career lattice opportunities across the health administration and aging services continuum with local, regional, and national employers.

Resources. The National Mentoring program developed and supported by the ACHCA is a model that has produced good results. Another example of a high-impact practice is the Argentum Career Center. The AHCA and LeadingAge leadership development programs are two of the exceptional association efforts noted in Appendix D.

Theme 5: Expand Academic Programs Across the United States

We do not have nearly the number of universities or students focused on this profession as are needed by providers. Opportunities exist to reach out to programs affiliated with the Association for Gerontology in Higher Education, the Association of University Programs in Health Administration, the Commission on Accreditation of Healthcare Management Education, the NAB programs, and the Senior Living Certification Commission. We see this effort as twofold. First, we need to expand the number of programs with an interest in health care administration and aging services and potentially double the number of NAB-accredited programs and other programs in the next few years. Second, we need to encourage a conversation among the educational associations to develop more cooperative relationships with one another.

Strategy. Develop a publicly available portfolio of strong programs across the country.

Objectives/tasks. This area requires a two-pronged approach. First, decide on existing and promising university programs on which to focus efforts this year. An initial list of universities has been compiled, based on consideration of a number of factors, that have the potential to enhance or establish a strong health care administration and aging services program. Some of the criteria for inclusion on this list are the following: (1) history of the program; (2) faculty credentials; (3) program website review; (4) accreditation; (5) size or student numbers; (6) program relationships; (7) expressed interest(s); and (8) geographic location. The sabbatical steering committee has reviewed the list and made recommendations to refine or expand it depending on members’ perspectives. Additionally, an expert panel has weighed in to refine the list, as noted in Appendix E. We expect this list to be updated on an annual or other regular basis. Second, encourage a continuing dialogue between the educational accrediting bodies to create both momentum and possibly a task force to approach this problem. The challenge we face is that a cooperative new approach is required for accreditation management, and pedagogical resources are needed to support the future anticipated program growth.

Comments. The goal of expanding programs requires the appropriate resources to support these programs and a value proposition for university administration to support the development, accreditation, and growth of existing and new programs. There also is a recognition that each program has developed or will develop in its own unique way to align with the university culture of which it is a part.

Resources. One of the first resources is the initial list of universities that either have programs or could be targeted to develop one in the near future. We evaluated geographic location and need for the targeted program by consulting a demographic and provider map (see Figures 2a through 2c). Second, we have some wonderful resources (Johs & Olson, 2017) that could serve as a foundation for programs planning to enhance their program or start a new one. The outreach to universities assessment, as part of the sabbatical project, also contains good ideas and high-impact practices that could help advance programs.
Theme 6: Development of an Aspirational Model for the Profession

An aspirational model for this profession is needed. Feedback suggests less focus on technical needs and more on development of professional leadership skill sets. Encouraging providers and their respective associations to engage with academic accrediting bodies is another necessary step forward.

**Strategy.** Encourage and facilitate a conversation among various stakeholders to build on existing curricula by incorporating the observed needs of providers hiring emerging leaders.

**Objectives/tasks.** Include input from sabbatical focus groups and research findings to identify common leadership needs and other areas requiring more emphasis.

**Comments.** Throughout the course of conversations, and when reaching out for more formal feedback, there was a thread of encouragement to carefully consider the changing landscape of services. Doing so includes but is not limited to the following:

1. The continuum of settings, particularly from a professional development perspective. The Health Services Executive model is an initiative of NAB and advances the skills required to lead in organizations with a broader spectrum of services (e.g., skilled nursing facilities [SNF], residential care and assisted living [RCAL], and home and community-based services [HCBS]) (Figure 3).

2. The role of other critical leaders in the senior care administration field (e.g., directors of nursing and sales counselors) and other gerontology areas (e.g., certified senior advisors), which would encourage the advancement of a more multidisciplinary educational approach.

3. The changing demographic needs and the needs and wants of future consumers who are driving service delivery. Paying attention to these changing needs and wants will be essential as the baby boomer age wave rises and falls over the next 30 plus years.

4. The tremendous impact of technology and the changing workforce. One technical expert pointed out that the
technology space has aggressively reached out to the next generation of talented workers to capture their interest in this area.

5. Focusing more on leadership practices and broader management skills while continuing to pay attention to the technical and regulatory requirements of operations. In addition, this area connects to the professional image initiative.

6. A professional image (Theme 1) is essential to the development of this aspirational model, and it has implications for both the field experience and career path themes.

7. Paying attention to the voice of the next generation of leaders so that we can appeal to their interests and energies.

Resources. The provider and association focus groups and formal feedback, along with the NELS Forum (2017), focused on a number of key considerations for the future.

Figure 3. Health Services Executive Model

Theme 7: Document the Current State of the Profession and Explore the Impact of Leadership on Outcomes

Efforts are in place to advance an applied research proposal that, on completion, documents the profession’s profile and assesses the impact of leadership on care outcomes and services. This long overdue research effort will update the existing literature (Castle, 2001) on the state of this profession and broaden the perspective on the impact of leadership (Castle & Decker, 2011). We also intend to support the advancement of a planned colloquium attended by stakeholders who have endorsed this effort, and who can provide leadership to guide the recommended project actions by bringing together groups that would not routinely connect. These stakeholders, primarily represented by providers and universities, have significant influence on the ultimate goal of expanding the number of academic programs dispersed across the country.

Strategy. Submit a research proposal to document the current demand for, and supply of, administrative leadership for this profession and further examine the impact of leadership on care and services.

Objectives/tasks. Ensure that stakeholders have weighed in and support the proposal advanced by the author and an identified research team.

Comments. The original proposal has been developed, and the research team is exploring potential funding sources. This is a priority not only for this team, but also will supply important information necessary to share the updated state of the profession for the national strategy. Documenting the state of the profession and the impact of leadership on outcomes is a critical step in helping to build a stronger case for action (Kotter, 2014).

Resources. A summary overview of the existing confidential proposal is available for review by contacting the author directly. Clearly, documenting the field’s current experience and making the case regarding the future demand for and expected shortage of talent for this noble profession are imperative. This will help us not only build the case for putting energy and resources into advancing this professional need, but will also support our work as we enhance and expand senior care administration programs across the country. In addition, we need to pay attention to how other professions (e.g., physical therapy) approach their supply and demand challenges.

DISCUSSION

The consensus of the sabbatical steering committee is that a subset of committee members will remain active to guide this effort. We are working on organizing a symposium with key stakeholders. Participants will comprise a wide range of interested parties and stakeholders who typically would not attend the same meeting. Providers and universities will be two of the key groups. Typically, stakeholders convene their respective audiences at their own sponsored conferences. Some efforts to reach out to other stakeholders have been only modestly successful.
Next Steps

Strategy. A group of individuals will be convened who represent universities and providers along with a variety of other audiences, stakeholders, and interested parties. They will learn about the current state of the profession, discuss the progress on the key themes, and come to a consensus on how to work together to advance the agenda and the future of the profession. This meeting is not meant to replace the variety of important association events held throughout the year.

Objectives/tasks. First, we need to develop a clear set of objectives and an approach for the meeting. These objectives should include solidifying agreement on the need for a national strategy; further exploring possible approaches identified in advance; determining who might be interested in becoming involved and in what areas; creating actionable plans with accountability, time frames, and resource needs. We also will need to determine if any type of national consortium would be appropriate for guiding future activities. Second, we need to decide on a summer 2019 date, a central location, and funding or sponsorship needs. Third, we need to assemble a list of individuals who will be invited to the symposium, which will include representation from a wide variety of groups, with an emphasis on providers and universities. Although the Center for Health Administration and Aging Services Excellence at UW-Eau Claire would have an initial role with planning this event and some of the early implementation phases, a more independent body could be advanced to participate in leadership of this effort.

Comments. The symposium will bring together a diverse group of people, including individuals who are currently active or affiliated with the profession, and those who have had an affiliation in the past. Additionally, the group will provide a mix of backgrounds and perspectives not normally brought together. This meeting should foster a rich and meaningful dialogue, especially between academics and providers.

Resources. A subset of the sabbatical steering committee, along with a few new members, have agreed to provide oversight for this effort. The committee also discussed the type of national consortium that would need to be in place after the symposium to ensure ongoing progress on the agreed-upon plan. Although the Center for Health Administration and Aging Services Excellence is supporting some of the time and effort focused on advancing this initiative, other funders and sponsors are necessary to advance this agenda. The collective efforts and support of all stakeholders are needed to advance the agenda of enhancing and expanding university-based programs focused on health administration and aging services.

CONCLUSIONS

We need to keep the momentum moving forward to achieve our goals of enhancing and expanding university-based programs in senior care administration. Based on the endorsement of the report by all of the associations involved with this effort, we are working on the following steps:

1. Develop a consortium model to guide the advancement of strategies, which will require a leadership oversight group
2. Disseminate the initial findings to a broad array of media sources and publications
3. Obtain funding for the applied research proposal that will document the state of the profession and provide evidence of the impact of quality leadership on outcomes
4. Organize a symposium to be held in the summer of 2019 that will convene individuals who represent a variety of audiences, stakeholders, and other interested parties to learn about the state of the profession, discuss progress on key themes, and reach a consensus on how to work together to advance the profession. These stakeholders include the following:
   - Providers from across the wide variety of settings
   - University faculty and leadership
   - Associations and credentialing groups
   - Emerging leaders and experts in the area of generational differences
   - Public relations and marketing experts and mainstream media
   - Government officials and regulatory representatives
   - Consumer groups (e.g., AARP and National Consumer Voice for Quality Long-Term Care)

Using the results from this study and the subsequent framework, invested stakeholders can work with
universities to create a strong portfolio of programs to address the ever-increasing needs of the health administration and aging services profession.

These implementation efforts will require time, energy, and resources from a variety of sources. We invite you to join this exciting and important effort. We are at a critical time, and it is our mutual responsibility to advance this noble profession to ensure we have both capable and talented leadership to guide the ever-changing organizational efforts to provide the best possible care and services for the deserving elders of our country.

ACKNOWLEDGEMENTS

The overall sabbatical was supported by the Center for Health Administration and Aging Services Excellence, NAB Foundation, UW-Eau Claire, and the UW System.

APPENDICES

Appendix A. Sabbatical Steering Committee

This sabbatical project would not have been possible without the contributions of a wonderfully insightful steering committee as well as the perspectives of hundreds of individuals. Steering committee members over the term of the project include:

- Dr. Robert Burke, Professor, The George Washington University
- Dr. Nicholas Castle, Professor, University of Pittsburgh
- Steve Chies, Program Manager Long-term Care Administration at St. Joseph’s College;
- Dr. David Gifford, Senior VP of Quality, AHCA
- Dr. Diane Hoadley, Emeritus Dean, UW-Eau Claire College of Business
- Dr. Jennifer Johs-Artisensi, Professor, UW-Eau Claire
- Ed Kenny, chairman of the board, LCS
- Robert Kramer, Founder and Strategic Advisor, National Investment Center
- Randy Lindner, CEO, NAB Foundation
- Chris Mason, President and CEO, Senior Housing Managers
- Bill McGinley, President and CEO, ACHCA
- Anne Montgomery, Senior Policy Analyst, Altarum Institute
- Mike Schanke, Convener of CHAASE and President of Oakridge Gardens
- Cecilia Sepp, former President and CEO, ACHCA
- Dr. Robyn Stone, Executive Director, LeadingAge Center for Applied Research
- Julieanne Williams, CEO, Dycora
- Paul Williams, VP of Education, Argentum
- Otis Woods, Wisconsin Department of Health Services

The steering committee’s role was to review efforts and information and provide feedback. The committee formally supported the full sabbatical report, which has informed this article.

Appendix B. Study Report on Review of NAB-Accreditation Reports

The goal of this project was to identify characteristics of strong NAB-accredited academic programs, along with specific supports for and barriers to the development of strong long-term care (LTC) educational programs. Nineteen reports spanning more than 10 years were reviewed using a SWOT matrix approach. The overall conclusions are noted below, and the full study is included in the full sabbatical report

OVERALL CONCLUSIONS

- A strong marketing/student recruitment approach is critical. There are many untapped opportunities with social media, and it is difficult to have a strong, successful program without a critical mass of students.
- The internship/practicum/AIT is a critical part of the education in these programs. Increasing all schools to at least 1,000 hours is moving in the right direction. It is important to have a solid structure in place with adequate time devoted to the faculty and staff who are coordinating these internships, placing students, training preceptors, and ensuring there is a strong structure in place for the experience. This structure includes clear learning goals; good communication between student, preceptor, and faculty; appropriate structure of assignments; reflections; periodic reports/evaluations; and assessment of students’ learning and experience at that site with that preceptor. Additionally, especially with a new minimum internship/practicum/
AIT of 1,000 hours, providing a stipend for students becomes even more important.

- A formal advisory committee should meet regularly with adequate representation across the continuum and by alum, practitioners, preceptors, and other LTC stakeholders who can play a significant role in helping keep curriculum up to date, soliciting internship/practicum/AIT sites, recruiting students, serving as “experts” for guest speakers and field trip locations, and fundraising for the program.

- Connection with the profession is of critical importance (i.e., NAB, ACHCA, provider community, other industry and professional associations); some great opportunities are available for university programs to partner with state associations and other providers in their communities.

- Overall, programs seem to be run by well-qualified faculty members with a broad array of doctoral and master’s level degrees, as well as a variety of Licensed Nursing Home Administrators and others with experience related to business/gerontology/other aspects of health care and/or long-term care who are well-respected in their fields.

- Many accredited programs have received strong support from upper administration (chairs, deans, provosts), as well as adequate funding, both internal and external.

Appendix C. Responses From University Academic Directors to the Following Question

What do you believe are the information needs of your respective university administration to further support the establishment or continued investment in a senior care administration program?

- Need for distance partnerships
- Direct alumni data on earnings, longevity, and gifting
- Having a strong advisory council is key. It has the “juice” to be quite influential.
- My greatest need for information is more clarity around the AIT, and how to integrate that into an academic program for those who need it. We are receiving an interesting array of applicants, some of whom have already completed an AIT but want the academic component; some are partway through the AIT; and others will be starting. Designing a curriculum to meet all those needs is challenging.
- They would have to review much of the information that I review.
- Data and consistent information to illustrate the complexity related to the health care sector
- More detailed information on the growing needs of senior care organizations
- Belief that the program can sustain itself
- Our college’s program in LTC administration is highly respected nationally, but not so much within our campus. I wish administration understood how vital our program is to the industry as a whole. It’s been successful for a long time, but it’s been taken for granted on the campus.
- Data about positions filled by new/recent graduates per year; vacancies
- If we could show the significance of community partnerships in reference to the senior program
- Better understanding of the national landscape and how investment/support for the school will benefit the university overall
- Statistics on the population and its unique needs
- More awareness of the importance and market demand
- Senior leaders would need to be convinced that a viable program could exist.

Appendix D. Association Program Listing

The American Health Care Association and the National Center for Assisted Living have a Future Leaders Program for owners and operators who are up-and-coming leaders in states. This group attends a 3-day training session in Washington, D.C., has assigned readings, has regularly scheduled conference calls and activities, and has a demonstrated interest in working on LTC issues at the national level, which may include participating on AHCA/NCAL work groups or committees. The respective state associations forward the names of candidates.

LeadingAge has a Leadership Academy with a year-long curriculum that unfolds over five in-person experiences and monthly virtual gatherings. It provides a broad understanding of leadership theory and practice through multiple program components, including exposure to a foundation of leadership knowledge, innovative organizations, and diverse perspectives from seasoned leaders and colleagues in the field. Fellows also begin
working toward the implementation of a program or practice that will help advance an innovation or improvement in their organizations (or in the aging services field).

Argentum provides tools and resources to help those working in senior living reach their professional development goals. A recent initiative provides certification opportunities for executive directors/administrators of senior living communities, as well as a program for community sales and marketing professionals. Argentum also has a robust career center.

The American College of Health Care Administrators (ACHCA) and the National Association of Long Term Care Administrator Boards (NAB) partnered to form the NAB/ACHCA Administrator in Training manual, as well as the four-part digital preceptor training course. They also are home to a national mentoring program that has had much success.

The National Investment Center (NIC) has a Future Leaders Council composed of nominated individuals who commit volunteer time to work on NIC initiatives. These individuals also serve on NIC committees and task forces as requested; take on specific projects to benefit NIC; and gather formally as a group at major NIC events to discuss current issues, share ideas and successes, and ask questions of fellow members and industry leaders. The center also has a robust academic outreach approach based on connecting emerging leaders with internship opportunities.

Appendix E. University Program Listing by Region

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REFERENCES


Olson, D. (2018). Initial targeted list of universities for Health Services Leadership and Senior Living Educational Programs. This figure is available as part of the full sabbatical report at https://www.chaase.org/


ABSTRACT

The Problem: Alzheimer’s disease and related dementias (ADRD) are the greatest public health challenge of the 21st century. As the number of people living with ADRD increases in the coming years, the need for care also will grow. Yet, the provision of high-quality care to individuals living with ADRD is challenging given their unique care needs.

The Resolution: This article discusses several system-wide issues that will impact the future care of people living with ADRD in residential care settings. The current and projected care needs of people living with ADRD in the United States are also discussed.

Tips for Success: This article suggests options to better serve individuals with ADRD and the providers who care for them through improved public policies and reimbursement structures.

Keywords: Alzheimer’s disease, dementia; workforce, Medicaid, long-term services and supports
INTRODUCTION

Alzheimer’s disease and related dementias (ADRD) have been identified as the greatest public health challenge of the 21st century (Refolo et al., 2015). Few other issues will have the breadth of impact during this century. At both a systems and direct care level, this should be cause for concern for those working in the health care, long-term services and supports (LTSS), and seniors housing fields. Dementia specifically poses several unique challenges with respect to how care should be organized, financed, and delivered. Further, while the majority of individuals with Alzheimer’s disease (estimated at 70%) live in their own homes, ADRD is also a primary driver of the need for and use of LTSS (Alzheimer’s Association, 2018). As the number of people living with Alzheimer’s disease increases substantially in the years ahead, the need for care will also continue to grow.

Yet, providing appropriate, high-quality care to individuals living with Alzheimer’s disease and other dementias can be challenging. Those living with Alzheimer’s disease or other cognitive impairments often have much more intensive care needs and incur higher costs compared with other populations (Kaplan, 2017). As many as 97% of all individuals with dementia will experience at least one behavioral or psychological symptom such as depression, irritability, agitation, or anxiety (Steinberg, Shao, Zandi, Welsh-Bohmer, & Norton, 2008). Many individuals may experience multiple challenging behavioral symptoms. Providers of LTSS will need to adapt to this increasing need for dementia support in the United States. Payment structures—and the policies and programs that underpin them—must also evolve to better provide for the growing number of individuals with ADRD.

In response to the growing need for dementia care, this article focuses on several system-wide issues that will impact the care of individuals living with Alzheimer’s disease or other dementias. Specifically, it presents the current and projected care needs of people living with Alzheimer’s and other dementias in the United States. This article also grapples with the high individual and societal costs associated with dementia and their projected growth in the years ahead. In addition, the article also examines several challenges facing providers in meeting current and future care needs, with a focus on the workforce. Lastly, several suggestions are offered to better meet the needs of individuals with ADRD and the providers who care for them through adapted payment and reimbursement structures.

ALZHEIMER’S DISEASE AND RELATED DEMENTIAS: CURRENT AND FUTURE NEEDS

An estimated 5.7 million Americans are living with Alzheimer’s disease or another form of dementia (Alzheimer’s Association, 2018). Another 13.8 million individuals are believed to have mild cognitive impairment (MCI), an intermediate stage of cognitive decline that is often a precursor to the development of dementia (Jodi et al., 2017). Research indicates that within 2 years, between 10% and 36% of individuals with MCI go on to develop Alzheimer’s disease (Ward, Tardiff, Dye, & Arrighi, 2013). The risk of developing Alzheimer’s disease or another form of dementia also increases with advanced age. While about 10% of adults 65 years and older have dementia, one of every three adults 85 and older will develop dementia (Alzheimer’s Association, 2018). In short, the pervasiveness of cognitive impairment is immense.

Although the current landscape is daunting, future projections of dementia are even more stark. By 2050, nearly 14 million Americans 65 years and older will be living with some form of dementia (Alzheimer’s Association, 2018) unless an effective treatment or a cure is developed and made widely available. Once again, the increased prevalence of dementia will be driven largely by demographics—that is, the aging of the U.S. population. This fact stands in contrast to highly encouraging evidence that the incidence of Alzheimer’s disease may be declining (Langa, 2015; Larson, Yaffe, & Langa, 2013).1 This evidence is largely based on efforts to address modifiable risk factors (diet, exercise, social connections, and stress management) that may help reduce the risk of developing dementia for some individuals. Nevertheless, over the next several years, the number of people 85 and older—those most at risk of developing dementia—is likely to grow substantially. The increase in the size of this population cohort will almost certainly ensure an increase in the

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1 For clarity, the prevalence of a disease such as Alzheimer’s is the proportion of people who have the disease at any given time, while incidence refers to the probability (or risk) of an individual developing the disease.
The projected demographic changes help to illustrate the point. Currently, there are approximately 6.5 million Americans 85 and older. By 2025, there will be 7.4 million. By 2040, more than 14.4 million people will be in the 85 and older cohort, a nearly 100% growth in a span of 15 years (U.S. Census Bureau, 2017). These demographic trends are not new revelations. Less widely known, however, is that this trend will continue well beyond the baby boomer generation to include millennials, who are an even larger population cohort. Large numbers of people living into advanced age will be the new normal in the United States, as well as in several other countries. The impact of dementia will profoundly shape the future of an increasingly aging society.

DEMENTIA CARE: THE INCREASING COSTS

The financial impact of Alzheimer’s disease and other dementias on individuals and family caregivers is substantial and a key driver of the wider societal costs of dementia. Individual lifetime out-of-pocket expenditures are estimated at $95,441, while the lifetime value of unpaid, informal care provided by family members is $143,735 (Alzheimer’s Association, 2018). Further, the median annual cost of a private room in a nursing facility in 2017 was $97,455, while a year of assisted living was $45,000 (Genworth Financial, 2017). In total, the lifetime individual costs of dementia are estimated at $341,840. Comparing these costs to the retirement savings of Americans is a sobering exercise. Approximately 45% of all working-age households in the United States have no retirement savings, while the median retirement account balance of working-age households with savings is just $2,500 and $14,500 for those nearest in age to retirement (Rhee & Boive, 2015). Even when total assets (e.g., family home) are included, two-thirds of all working-age families are still unprepared to fund retirement (Rhee & Boive, 2015). The typical American family simply does not have the resources to cover the costs associated with ADRD, pushing it to fund care through public programs such as Medicaid.

The direct impact of dementia on family caregivers is also significant. While caregiving is often challenging no matter the underlying need for support, dementia-specific caregivers report higher rates of stress, depression, and poor mental health and have greater emotional, financial, and physical difficulties than caregivers for individuals without dementia (Alzheimer’s Association, 2018). The long duration of the disease, as well as the unique care needs that often include significant behavioral and psychological challenges, are likely culprits (Steinberg et al., 2008). These challenges take a toll on a caregiver’s physical, mental, and financial well-being and add to the overall financial impact of ADRD, particularly when a caregiver is no longer able to provide care and seeks more expensive services.

Dementia costs are highest when paired with other chronic diseases. One study found that the average cost incurred by someone with Alzheimer’s disease in the last 5 years of life was $287,038, compared with $175,136 for heart disease and $173,383 for cancer (Kelley, McGarry, Gorges, & Skinner, 2015). In 2018, the United States will spend an estimated $277 billion on dementia care (Alzheimer’s Association, 2018). By 2040, care for Alzheimer’s and other dementias could cost the United States as much as $1.1 trillion annually (Hurd, Martorell, Delavande, Mullen, & Langa, 2013). Such enormous costs are unsustainable and will pressure the systems of care and support that currently provide the majority of funding for dementia care, such as Medicaid, Medicare, and private long-term care insurance. This, in turn, will put pressure on providers—particularly those operating on thin margins—if reimbursements from these funding sources are reduced or do not keep pace with need.

Public financing programs such as Medicare and Medicaid must be strengthened so they can respond to the increased need for dementia care. These programs must also adapt to better serve individuals living with dementia. If more supports could be offered to family caregivers, then the need for more intensive, costly care could be avoided or more likely delayed, which would have a downstream effect on Medicaid costs. An encouraging development is the recent decision by the Centers for Medicare & Medicaid Services (CMS) on interpreting the definition of supplemental benefits that can be offered under Medicare Advantage (MA) plans (CMS, 2018). While not specifically focused on dementia, greater coverage of LTSS (e.g., in-
home care, case management, or transportation) through MA plans could help support individuals living in seniors housing communities, as well as those in states without coverage for assisted living under Medicaid. This shift in coverage under MA plans presents an opportunity for providers to better support people living with dementia.

IMPACT ON CARE SETTINGS

The impact of Alzheimer’s disease and other dementias on providers is profound. According to the National Center for Health Statistics, 39.6% of all individuals in residential care communities, 50.4% of those in nursing facilities, and 31.4% of all individuals served by home health agencies in the United States have a diagnosis of Alzheimer’s disease or another dementia (Harris-Kojetin et al., 2016). Although a comparatively small segment of the U.S. population is living with dementia, it represents a significant share of all community-based care recipients and nursing facility residents in this country. Further, these numbers do not account for the high level of underdiagnosis of dementia, which is believed to be as high as 50% of all cases (Amjad et al., 2011).

These numbers are difficult to ignore, especially for providers. They speak to a wider trend taking place within LTSS settings, including a rising level of intensive care need in community-based care. As people postpone entry to formal care or delay using higher levels of care, the care needs of residents are often much higher when they enter a community. Several years of public policies that promote home and community-based services (HCBS) as a cost-containment strategy are in part the reason for this shifting dynamic. More than half of all Medicaid dollars are now spent on HCBS rather than on institutional care (Eiken, Sredl, Burwell, & Woodard, 2017). Evolving preferences for how and where one seeks care and support, as well as advancements in medical care that allow individuals to live longer and healthier than previous generations also have facilitated this shift (Barret, 2014). This trend toward the wider use of HCBS and delay in receiving formal care means that family caregivers require far greater support than is currently available. Providing training on how to better manage the symptoms of dementia could help family caregivers. So too would greater access to respite care. Yet, given the high rate of underdiagnosis of ADRD, training and other supports are unlikely to have a significant impact unless better (and earlier) detection and diagnosis of ADRD take place so that family caregivers know when to seek support (de Vugt & Verhey, 2013). This must be a priority of policymakers and health care practitioners alike.

Technological resources could also enhance HCBS. The use of telemedicine, online caregiver training programs, and sensory equipment that monitors for falls or behavior changes (e.g., increased anxiety) can be particularly helpful in supporting the care needs of individuals living with Alzheimer’s disease or dementia (Lorenz, Freddolino, Comas-Herrera, Knapp, & Damant, 2017; Whittatch & Orsulic-Jera, 2018). More research is needed to determine the specific types of technologies that are most effective and when they are most likely to help. Indeed, technology also presents providers with an opportunity to assess the partnerships that can be developed with other health care providers and with technology platforms that may be providing supports that help individuals remain in their homes longer.

IMPACT OF A CURE OR TREATMENT

An increasing consensus is building that research on Alzheimer’s disease and related dementias must advance at a faster pace; current efforts are perceived as not moving fast enough given the scale of impact. Increased federal funding for research through the National Institutes of Health (NIH) will reach $1.8 billion in 2018, which may be evidence of this convergence of thought (Sullivan, 2018). So too is Bill Gates’s financial commitment in 2017 to research on a treatment for dementia. Yet, even if a treatment is developed in the next few years, there will be a significant demand for dementia care as a chronic condition that must be managed and supported. Further, the U.S. health care system is simply not prepared to handle the systematic changes a treatment would require, and it may take several more years to be ready to deliver a treatment on a widespread basis (Liu, Jakub, Hlávka, Hillestad, & Mattke, 2017). Taken together, these factors suggest the need for dementia care in settings such as assisted living and residential care is likely to continue for some time.
PROVIDERS: THE CHALLENGES AND OPPORTUNITIES

One of the biggest challenges for LTSS providers in meeting the needs of those living with Alzheimer’s disease or dementia is the caregiving workforce. In addition to the increased number of workers who will be required, there is also a specific need for highly skilled workers who can provide care to meet the unique needs of residents with Alzheimer’s disease. Recent estimates show that approximately 3.3 million people work as care providers in LTSS (Bates, Amah, & Coffman, 2018). As the prevalence of dementia increases, the need for caregivers also will increase. However, the number of available workers is unlikely to meet the demand for care in the years ahead. For example, by 2024, 4.56 million health care workers will be needed (Gilster, Boltz, & Dalessandro, 2018). A shortage of paid caregivers is developing precisely when the need for dementia care is increasing because of demographic changes. This shortage will be felt most acutely in rural areas of the country where the number of adults of advanced age is increasing at a faster rate than other segments of the population. Increasingly restrictive immigration policies will ensure that large urban areas where immigrants make up a majority of the caregiving workforce will also feel the pressure of this shortage. Providers must look at ways to support and develop the skilled workforce needed to provide high-quality care for people living with dementia. These efforts should include a combination of additional training, higher compensation, career advancement opportunities, and other strategies that enhance staff recruitment and retention in the challenging field of dementia care.

Smart public policy is needed to support provider efforts to enhance the caregiving workforce for an increasing population living with dementia. For example, the federal government could provide funding to train additional direct care workers, while requiring nationwide training standards, competencies, and hours of education (Espinoza, 2017; Institute of Medicine, 2008). Although additional research is needed to establish a clear link between training and care outcomes, evidence exists that training caregivers on managing the challenging behaviors of dementia is an effective strategy (Spector, Revolta, & Orrell, 2016). Ensuring adequate funding of Medicaid may also help support the caregiving workforce, as low Medicaid reimbursement rates have been linked to poorer care outcomes (Grabowski, Angelelli, & Mor, 2004). Policymakers, however, could look beyond Medicaid to more stable financing sources that are not dependent on the cyclical relationship of the economy with state budgets. Once again, the recent decision by CMS to allow MA plans to cover more supportive services suggests that this topic is worth exploring in greater depth. Yet, an effective public policy response requires both a federal and state-level approach to enhancing care for individuals living with ADRD.

SUMMARY AND CONCLUSIONS

Providers of LTSS are at the epicenter of the public health crisis created by ADRD. Caring for individuals living with dementia already is a major part of the services offered, but the need for care will grow significantly in the years ahead. Providers must prepare for and adapt to the increasing need for dementia care and support. Both providers and the individuals they serve benefit when the care provided meets the specific needs of residents. This is particularly true for those living with ADRD given their unique care and support needs. Public policy also must support providers in their efforts to deliver the types of services needed. The care of all future generations who may live with dementia will depend on it.

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The Need for Investigations Training for Nursing Home Administrators and Staff Into Complaints of Abuse, Neglect, and Misappropriation

John M. Hazy, PhD; Walt Bradley, AAS

ABSTRACT

The Problem: Investigations into abuse, neglect, and misappropriation (ANM) of nursing home residents are a standard part of senior living facility settings even though administrators and staff are not trained properly on investigations.

The Resolution: Appropriate investigation training can be provided inexpensively and effectively to help those who are unfamiliar with investigations into allegations of ANM.

Tips for Success: Nursing home administrators and staff should undergo regular investigation training into claims of ANM by individuals experienced in conducting such investigations (i.e., State Department of Health investigators, both current and retired; law enforcement officers whose expertise covers elder abuse; adult protective services personnel; and special investigators). Being trained by those without the first-hand experience of performing investigations is insufficient to initiate a timely, thorough, complete, and concise investigation of allegations of ANM. The training should reflect the core principles outlined in this commentary. The outcome will be enhanced quality of care for nursing home residents.

Keywords: Investigation, training, elder abuse, neglect, misappropriation
INTRODUCTION

Nursing homes, including but not limited to long-term care and skilled nursing facilities, have tremendous responsibilities in caring for vulnerable populations. They must provide high-quality compassionate care in a safe environment for a growing population, all within a context of limited resources. Although the best intentions are at play, problems arise, as they do in any setting. The focus in this commentary is on how nursing home administrators and staff should be trained to investigate allegations of resident abuse, neglect, and misappropriation (ANM) (see Table 1 for definitions). Proper investigation training enables nursing homes to strive for what is best for their residents and for the environment in which they live.

Table 1. Glossary of Terms for Abuse, Neglect, and Misappropriation (ANM)

“Abuse is the willful infliction of injury, unreasonable confinement, intimidation, or punishment with resulting physical harm, pain or mental anguish. Abuse also includes the deprivation by an individual, including a caretaker, of goods or services that are necessary to attain or maintain physical, mental, and psychosocial well-being. Instances of abuse of all residents, irrespective of any mental or physical condition, cause physical harm, pain or mental anguish. It includes verbal abuse, sexual abuse, physical abuse, and mental abuse including abuse facilitated or enabled through the use of technology. Willful, as used in this definition of abuse, means the individual must have acted deliberately, not that the individual must have intended to inflict injury or harm.”

“Neglect is the failure of the facility, its employees or service providers to provide goods and services to a resident that are necessary to avoid physical harm, pain, mental anguish, or emotional distress.”

“Misappropriation of resident property means the deliberate misplacement, exploitation, or wrongful, temporary, or permanent use of a resident’s belongings or money without the resident’s consent.”

Source. 42 C.F.R. §488.301. Retrieved from https://www.ecfr.gov/cgi-bin/text-idx?SID=6f22daa76495357d43d9c44e785e5317&mc=true&node=pt42.5.488&rgn=div5#se42.5.488_1301

PROBLEM SIGNIFICANCE

As Table 1 indicates, ANM ranges in the degree of seriousness and harm to nursing home residents. What we know about investigations into ANM complaints is summarized into the following four points. First, federal law requires investigations into all ANM complaints within certain time frames (usually within 24 hours to 2 days). Second, those who oversee investigations of ANM complaints report limitations in terms of time delays, lack of thoroughness, and less-than-ideal reporting outcomes (Centers for Medicare & Medicaid Services [CMS], 2016; Government Accountability Office [GAO], 1999, 2003, 2011, & 2015; Office of the New York State Comptroller, Division of State Government Accountability, 2006; Office of Inspector General [OIG], 2017). Third, action plans proposed by ANM oversight organizations such as CMS (2016) call for training into these investigations (Office of the New York State Comptroller, Division of State Government Accountability, 2006; OIG, 2017). Fourth, some models for improved training into investigations of ANM complaints are promising, though additional research needs to build on their accomplishments (CMS, 2008).

While a national database for all ANM complaints and corresponding investigations is not available to the public, the OIG of the U.S. Department of Health & Human Services singled out a subset of ANM complaints deemed high priority and/or immediate-jeopardy situations. The OIG reported 45 of these complaints per 1,000 nursing home residents in 2015, a 37% increase from 2011, when the rate was 33 complaints per 1,000 nursing home residents. These rates translate to a total of 62,790 complaints in 2015 and 47,279 complaints in 2011. These findings indicate that complaints filed on behalf of nursing home residents are on the rise, and the need for proper execution of investigations is growing (OIG, 2017).

Because of definitional differences and research limitations, national data on all ANM complaints and corresponding investigations are not available. However, available state data corroborate those in the OIG's 2017
report. Data from the Ohio Department of Health (Figure 1) show that ANM continues to be a significant issue in nursing homes; the number of confirmed cases increased from 16,749 in 2015 to 17,711 in 2017, the bulk of which (67%) reflect physical abuse (Hodge, 2018).

The shortcomings of nursing home administrators and staff in investigating and reporting allegations of ANM of their residents need to be addressed. Given that the primary obligation of senior living facilities is the health, welfare, and safety of residents, and ANM is present in a variety of settings, it is imperative for nursing home administrators and staff to at least be familiar with the process involved in investigating allegations of ANM. Despite federal and state attempts to regulate care, nursing home ANM remains an important issue to address (GAO, 2015; Levinson, 2014; OIG, 2017).

ANM issues are included in many states’ self-reported incident (SRI) requirements pertaining to nursing home operations. The ability of nursing homes to accurately detail, document, and submit SRI findings to relevant government agencies is hindered by the lack of direction from these entities (GAO, 2015; Hamilton, 2004; Maust, 2005; Office of the Legislative Auditor, 2018; Office of the New York State Comptroller, Division of State Government Accountability, 2006). Consequently, this commentary provides a training roadmap for nursing home leadership to achieve the timely, accurate, thorough, and unbiased completion of ANM complaint investigations.

PRIOR RESEARCH

Currently, no formal training led by an experienced investigator is required for nursing home administrators and staff. The innovative investigation training advocated reflects successful training principles (Merrill, 2013) best delivered by personnel with investigative experience (i.e., law enforcement and/or state agency investigators). As the research of Cooper, Selwood, and Livingston (2009, p. 826) shows, “interventions that taught professionals about the management of abuse by face-to-face training were effective in increasing knowledge, whereas giving written information was not.”

Nursing home leadership is made up of administrators, directors of nursing, unit managers, and social services professionals. They are required to perform investigatory actions though they are not investigators by profession. In many cases, nursing home leaders overseeing the facility have not undergone any additional training and have no more experience in dealing with AMN than do other staff members. Consequently, all levels of upper management should be exposed to a sound professional training program on investigations (Pillemer et al., 2011; Pillemer, Connolly, Breckman, Spreng, & Lachs, 2015; Wangmo, Wanberg, Brown, & Simmering, 2003). An investigator, by experience and specialized training, has a methodical approach to a complaint investigation, delving through the mentality and actions of alleged wrongdoers to uncover truths and provable descriptions of events (Bureau of Labor Statistics, 2018). The training of nursing home administrators and staff is the first step in addressing the need for thorough investigations.

This training program will be ongoing as new tasks are added. Ultimately, the investigations become more thorough, and a higher level of professionalism and accuracy becomes the standard. In addition, mentoring new members of the management team will enhance the stature of the nursing home as a full-service facility covering all facets of administration.

Because of the nature of nursing homes, many law enforcement agencies are hesitant to examine many of the
state and federally mandated requirements for reporting care issues, and they shy away from a thorough review and action based on the individual incident (Brownell & Wolden, 2003). Moreover, as Payne and Fletcher (2005) indicated in their review, nursing home issues, from a criminological perspective, are more of a social problem than a violence-centered problem.

**RECOMMENDED TRAINING**

Merrill (2013) described five characteristics of effective training:

- problem-centered
- activation-oriented
- demonstration-based
- application-focused
- integration-promoted.

Blanchard and Thacker (2003), also identified five types of training methods: (1) lecture, (2) discussion, (3) computer/web-based, (4) simulation, and (5) on-the-job (job instruction, apprenticeships, mentoring, coaching, and/or train-the-trainer). Because of the unstructured, complicated, emotional (Garma, 2017; Gironda et al., 2010), and dynamic nature of complaint investigations, a combination of training methods is most effective. As Welsh, Wanberg, Brown, and Simmering (2003) indicate, web-based training is effective for skill-building purposes.

Proper investigation training will enable the participant to navigate the steps to uncover the facts, as well as to communicate effectively regarding missing data or unprovable issues pertaining to the incident. The investigator must be attuned to the fact that what is discovered “is what it is.” The investigator cannot manufacture information; thus, the end does not justify the means. Indeed, taking on the role of fact finder may be the most important element of the investigation process.

Table 2 presents the 10 general steps in fulfilling an ANM investigation.

**Step 1: Receive Initial Complaint**

In most settings in which allegations of wrongdoing are made, management determines whether further inquiry is needed. However, this assessment rarely applies to nursing homes governed by state oversight because of the penalty structure for failing to act and report. The bottom line is the recommendation to err on the side of caution.

**Step 2: Interview the Complainant and Document Witness Accounts**

Timeliness is of the utmost importance with regard to information gathering after the complaint is made. A number of recent oversight efforts have stressed the need for expediency (GAO, 2015; Levinson, 2006).

**Step 3: Develop Terms of Reference**

To develop terms of reference, the investigator must determine if abuse (physical harm) is present, or if neglect (serious physical harm) is identified, as each definition requires different levels of fact, documentation, and evidence. The take-home point is that investigators need to clarify what they are attempting to identify and prove or disprove.
Step 4: Interview Witnesses (and Nonwitnesses)

Interviewing witnesses and nonwitnesses is extremely beneficial in reaching decisions on substantiation and nonsubstantiation. Nonwitnesses to an incident may have observed the demeanor of an accused or a complainant before the incident (i.e., profane utterances on reporting for duty, alleging disdain for the job, management, and/or residents). Indeed, the perceptions of nonwitnesses may be valuable during the investigation.

Step 5: Collect Exculpatory/Inculpatory Evidence

Evidence that is inculpatory or exculpatory in nature should be included in the essence of fairness and impartiality. Paper trails should be followed documenting knowledge of circumstances of individual care issues and care plans. The guiding point is that the intent of investigators is not automatically to prove guilt or be malicious. Instead, investigators should strive to determine and articulate the facts as they are identified.

Step 6: Formulate Allegations

Any determination of allegations should be based on definitive examples and proof, as administrative action will be initiated and investigators will be required to produce their reasoning behind the accusations. Critical thinking by investigators is of great importance.

Step 7: Document

In interviewing all parties, the investigator should not paraphrase the respondent’s words. It is imperative to document verbatim so as to protect the validity of the interview and information gathered. Interviews of accused wrongdoers, whether by phone or in person, should be witnessed by a member of the management team. This process becomes relevant at administrative hearings.

Step 8: Evaluate the Evidence

When evaluating the gathered information, investigators must give it appropriate weight. If there is an inability to prove an issue, investigators can document that the information is inconclusive or insufficient to assign blame.

Step 9: Make Decisions

Decision-making often requires assistance from others who can decipher elements obtained but possibly not understood. Reach out to a trusted professional (state investigator, local law enforcement professional, or someone from the management team) for his or her insight.

Step 10: Report the Findings

Reinforce the adage, “it is what it is.” The investigation collects the facts, the findings fall where they may, and investigators can only determine results based on the obtained facts. They must realize that an elusive element cannot be manufactured.

Throughout these steps of an investigation, investigators exhibit a wide range of skills. Active listening skills are essential; the investigator must be able to ask good questions and listen without interrupting. Being able to relate and talk with others is a must. In addition, investigations rely on critical thinking—the ability to see issues from multiple perspectives. Investigations also rely on excellent reading comprehension given the multitude of work-related data involved, as well as pertinent policies, laws, and regulations. Overall, in conducting investigations, investigators must exhibit complex problem-solving skills. Those involved with an investigation must be able to detect a problem and develop a plan that lays out the best way to solve it.

CALL TO ACTION

Oversight organizations such as CMS (2016) and OIG (2017), as well as nursing home leaders themselves, have stressed the need for investigation training for nursing home administrators and staff (Daly & Jogerst, 2005; McCool, Jogerst, Daly, & Xu, 2009; OIG, 2017). If done correctly, training works (Gironda et al., 2010; Moore & Browne, 2017; Teresi et al., 2013; Wangmo, Nordstrom, & Kressig, 2017). Ideally, investigation training should exhibit the following:

• Training should be provided in an interpersonal manner
on the premises of the facility in which trainees work.
• Training should be provided by experienced investigators who are familiar with the terminology related to medical conditions of victims.
• Investigators should be familiar with the various job duties of nursing home administrators and staff.
• Training should involve the abundance of details in the care provisions and plans germane to nursing home residents.
• Training should be limited to 20 or fewer participants given the interactive and intense nature of the content.
• The tailored interaction that takes place in the training sessions should reinforce the content.

BENEFITS OF IMPROVED ANM COMPLAINT INVESTIGATIONS

There are at least five benefits to enhancing investigations in response to allegations of ANM. Each is discussed briefly below:

1. The ANM investigation process protects the affected residents at the moment the complaint is substantiated and the wrongdoer is removed from the facility.
2. Removing the wrongdoer from the nursing home setting permanently will protect residents down the road.
3. The facility and staff benefit from the positive perception of outside investigators and surveyors regarding the professional dedication to timely, complete, accurate, and thorough reporting.
4. Nursing home residents and their families benefit from knowing that allegations are addressed promptly and with attention to detail. For example, for misappropriation, by identifying the culprits and removing them, administrators establish an environment that enables residents and family members to achieve peace of mind.
5. Improved investigations reflect effective communication and enhanced group dynamics (i.e., partnership development) essential in the investigation process of nursing home complaints of ANM.

Along with undergoing the training for investigation of ANM complaints, participants gain a better understanding of what went wrong and how the nursing home can initiate efforts to improve. Consequently, we recommend that research on the topic should follow up with nursing homes that undergo the proposed training for ANM complaint investigation to document its outcomes. In our experiences with nursing homes that have had improved investigation training, they report having gained an understanding of a range of issues that had been overlooked in prior operations. Rigorous longitudinal studies must be fostered to analyze both the short-term and long-term effects of investigation training so that a guided sharing of the potentially rich information may influence interested nursing homes in similar situations.

CONCLUSION

Overall, the investigation process is directed toward a nursing home’s three major obligations as a supplier of care and safety to residents. The first involves directly the charge of care to its residents. Second, investigators are obligated to explain results to family members and other responsible parties, as well as the reasoning behind those decisions. In doing so, investigations reflect the trust placed in nursing homes and their desire to deliver exemplary care. Third, investigations face the enormous task of being completely fair and impartial to all parties. As Jeste and Childers (2017) advocate, nursing homes should invest in their workers by training them to deal with difficult situations such as ANM complaint investigations, which, in turn, will help them retain their talent. Investigation training with respect to allegations of ANM is a mechanism by which nursing homes address these responsibilities.

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ABSTRACT

The Problem: Person-directed quality-of-life initiatives are an essential component to remaining competitive as the seniors housing market expands and changes.

The Resolution: The arts are naturally well-suited to this objective. This article explores findings from reports and research on the health benefits of the arts for older adults, placing them in context for senior living professionals.

Tips for Success: Best practices and models for effective creative aging programs in senior communities are discussed. Case studies of successful arts initiatives for older adults offer innovative solutions to common barriers, including cost, participation, and availability of cultural resources. Common methods of program evaluation are introduced, with a focus on their value for senior care. Finally, a variety of suggestions are proposed that illustrate the ease of implementing arts programs that encourage resident engagement and promote life satisfaction.

Keywords: Creative aging, quality-of-life, art, engagement, health and wellness
INTRODUCTION

The report Staying Engaged: Health Patterns of Older Americans Who Participate in the Arts (Rajan & Rajan, 2017) includes two key findings for seniors housing and long-term care providers. First, many older adults view the arts positively and wish to participate in arts activities. Second, creating, attending, and appreciating the arts are linked to positive health outcomes, including slower declines in cognitive health, lower rates of hypertension, and fewer limitations to activities of daily living.

A growing body of research suggests that community-based and social arts programs may have a beneficial effect on older adults’ health and quality of life. Basting (2006, p. 18) suggested that social programs, which might be facilitated by teaching artists, caregiving staff, or family members, and medical programs, which are facilitated by certified art therapists and reimbursable as medical treatment, “work best in tandem.” The distinction between social and medical programs is referred to elsewhere as wellness/treatment (Noice, Noice, & Kramer, 2013) or therapeutic uses of the arts/art therapies (Castora-Binkley, Noelker, Prohaska, & Satariano, 2010). This article explores the uses and implementation of social arts programs for senior living providers.

Art activities can influence multiple positive outcomes for residents of senior communities, including facilitation of intergenerational exchange (Brown, 2017), a sense of achievement, increased socialization, and improved health (Cohen et al., 2007). The arts promote socialization and autonomy, both of which have been linked to resident satisfaction and well-being in assisted living facilities (Kane, 2001; Mitchell & Kemp, 2000; Street, Burge, Quadagno, & Barrett, 2007). Cohen et al. (2007) noted that the efficacy of professionally administered arts programs rests on participants’ growing sense of mastery, improvement, and control, as well as on the socialization inherent in creative group activities. A growing body of research links social art activities to positive physical, cognitive, mental, and emotional health outcomes (Castora-Binkley et al., 2010; Cohen et al., 2006; Noice et al., 2013; Rajan & Rajan, 2017).

Health benefits of arts participation also have been shown to extend to employees in long-term care. Evidence of reduced burnout and mood dimensions was found in 112 health care workers who participated in a six-session recreational music-making protocol. If replicated, this benefit might translate to a $1.46 billion potential savings to the long-term care industry (Bittman, Bruhn, Stevens, Westengard, & Umbach, 2003). Hathorn (2012) surmised that, based on encouraging findings about the positive effects of visual art on staff of medical institutions, a similar benefit might be transmitted to staff in residential and long-term care, ultimately leading to improved relationships with residents.

CREATIVE AGING RESEARCH

The Creativity and Aging Study

The beneficial effects of community arts participation on health and aging were first formally studied in 2001 when Cohen initiated his groundbreaking Creativity and Aging Study, the results of which were published in 2006. Cohen and colleagues (2007) linked participation in community-based art programs run by professional artists to the following benefits: (1) an increase in overall health; (2) less prescription and over-the-counter medication use; (3) a decrease in falls; (4) a decrease in the number of physician visits; (5) a positive impact on morale; and (6) reduced depression and loneliness. Study participants were community-dwelling adults older than 65 who volunteered to attend weekly arts programs, engaging in a variety of activities including painting, writing, poetry, jewelry making, material culture, and chorale singing (Cohen, 2006).

The Arts and Aging: Building the Science

In 2012, as part of a federal interagency task force on the arts and human development, a public workshop was convened to address the need for greater research exploring the relationship of the arts to health outcomes for older adults. The resulting publication, The Arts and Aging: Building the Science (National Endowment for the Arts, 2013), identified opportunities for future research and cross-sector collaboration; summarized the current state of creative aging research; discussed the importance of the designed environment on the health of older adults; and proposed universal design as a method for enhancing the participation of older adults in everyday life.
Research summarized in *Building the Science* was conducted on multifarious forms in various settings, including acting and singing classes for people living in retirement homes; the effects of lifelong musical training on brain activity; the impact of music and dance on the movement of people with Parkinson’s disease; arts interventions for cognitive decline, neuropsychiatric symptoms, and quality of life for people living with dementia; and music as a way to treat symptoms associated with dementia. Additional research could more concretely establish the link between the arts and beneficial health outcomes for older adults, supporting increased funding for both medical and social arts programs across the continuum of care.

**Staying Engaged: Health Patterns of Older Americans Who Participate in the Arts**

Using data from the arts and culture module of the 2014 Health and Retirement Study (HRS), Rajan and Rajan (2017) analyzed the relationship between passive and active participation in the arts and health outcomes over time, addressing two research deficiencies identified in *Building the Science* (National Endowment for the Arts, 2013). Approximately 1,500 older adults surveyed for the HRS were selected randomly to answer questions about their participation in creating art, or “the process of generating, conceptualizing, and making works of art” (Rajan & Rajan, 2017, p. 5) and attending art, or “activities that invite older adults to observe, analyze, and interpret works of art” (Rajan & Rajan, 2017, p. 5). Respondents also were asked to rate the importance, value, and accessibility of the arts on a 5-point Likert scale. Answers from the arts and culture module were compared to longitudinal data on cognitive, physical, and cardiovascular health gathered by the HRS between 2002 and 2014.

Rajan and Rajan (2017, p. 3) found that

Older adults who participated in both Creating Art and Attending Art had higher levels of cognitive functioning and lower rates of limitations to daily physical functioning, as well as lower rates of hypertension relative to older adults who did neither type of activity.

In addition, among older adults who participated in both Creating and Attending Art in 2014, levels of cognitive functioning had decreased at a slower rate from 2002 to 2014, compared with levels for older adults who did only Creating Art activities or who did neither Creating Art nor Attending Art activities. The same advantage was noted for older adults who only attended art (Rajan & Rajan, 2017, p. 3).

The Rajans (2017, p. 29) also noted that “earlier reports of expressive arts therapy suggest the significance of art activities in reducing depression and anxiety, and increasing self-worth.” Sixty-four percent of older adults surveyed already were participating in some form of making art, including visual arts (39.5%), performing arts (38.4%), media arts (12.9%), and creative writing (6.8%). An even larger percentage, 68.7%, had attended an art event, whether at a museum or gallery, an arts or crafts fair, a live performance, or a film screening (Rajan & Rajan, 2017).

**INITIAL CONSIDERATIONS FOR SENIOR LIVING PROVIDERS**

**Best Practices**

Anne Basting (2006, p. 17) has written that “social arts programs can be implemented by anyone with a passion for creative expression and with skills in working with people with dementia.” Other research has focused on community-based arts interventions conducted by professional artists (Castora-Binkley et al., 2010; Cohen et al., 2007; Noice et al., 2013). Certified art therapists can offer programs that provide a variety of benefits, including increased engagement and self-esteem, improved health and deferral of medical treatment, and an overall improvement in quality of life (Stephenson, 2013). Larson and Perlstein (2003, pp. 146-147) surmised that teaching artists are well-suited for creative aging programs because they “know how to merge their aesthetic and their educational or social aims”; recognize “the aesthetic tastes of one’s population”; bring “sensitivity to the socio-political status of the population with whom they work”; and “are skilled at matching their curriculum to the developmental needs of the populations they serve.” A plethora of training opportunities for caregiving staff are also available, including Timeslips’ Create/Change Institute (2018), The
National Center for Creative Agings’ Creative Caregiving Initiative (2017), and The I’m Still Here Foundation’s ARTZ programs (2018).

Effective arts programs should demonstrate care and concern for the diverse experiences and cultural contexts of participants. Parker (2011) suggested that cultural competency on the part of institutions can improve the satisfaction of residents and family members and facilitate better relationships between residents and staff. Arts programs in residential care should hire diverse teaching artists, sponsor art-attending activities that represent a variety of cultural traditions, and support critical conversations about programming that involve participants and their families, facilitators, and other staff. Pike (2013) noted that the arts themselves may be a tool for increasing cross-cultural exchange, as well as having a beneficial effect on the cognitive performance of ethnically diverse older adults.

When implementing arts programs in senior living, providers must consider residents’ needs, experiences, and individuality. Basting (2006) suggested that caregiving staff, volunteers, and family members as well as people living with dementia create an “inventory of interests” that can guide program content, form, and goals. Inviting residents throughout the continuum of care to participate in planning and designing activities has a demonstrable effect on reducing stigma in multilevel communities that include independent living, assisted living, and skilled nursing care (Zimmerman et al., 2016). Music has been identified as a form of art that is especially suitable for diverse groups, including groups with people living with dementia (National Endowment for the Arts, 2013). Co-creation arts programs might take various forms and can include hybrid modes of art making and creative activities such as cooking, gardening, or other activities outside the realm of visual, performing, and media arts or creative writing.

Barriers

Some barriers to implementing or expanding arts programming in senior living may include cost and limited staff resources, a rural geographic location, or a lack of accessibility in existing cultural institutions. Schutte, Goris, Rivard, and Schutte (2016) identified the nature of the rural economy and distance to resources as primary barriers to health care for rural older adults; residents of senior living communities located in rural areas may face similar difficulties in accessing cultural resources. For senior living providers in both urban and rural settings, arranging for transportation and adequate care to attend off-site art events may be challenging. Rajan and Rajan (2017) cited General Social Survey data that pointed to poor health and physical disability as major factors in prohibiting older adults from attending art events.

Another key barrier is the difficulty in achieving continued engagement. Although Cohen (2006) identified artistic achievement as an enticement for participation, an appropriate skill level relative to participant ability is necessary. Castora-Binkley and colleagues (2010, p. 364) cautioned that “program attrition can be expected if a good fit is lacking because the results of sustained participation under these conditions will engender boredom, frustration, or both in the participant.” Creative activities also might challenge staff and residents alike, requiring a period of discomfort before transforming into a positive experience (Basting, Towey, & Rose, 2016).

CASE STUDIES

Attending Art Virtually

Opportunities to view and discuss art need not incur the expense of hiring professional teaching artists or even necessitate arranging field trips. Senior Center Without Walls (now Well Connected), a national organization based in the San Francisco Bay Area, and Senior Connections, a program of University Circle in Cleveland, Ohio, offer virtual distance learning in art and art appreciation. Senior Center Without Walls (2018) is a free “phone and online-based program offering activities, education, friendly conversation, and an assortment of classes and support groups to older adults accessible from the comfort of home.” Included in the organization’s offerings is a weekly tour of art around the world, led by a trained museum docent, and several events facilitated by museum curators. These programs have optional visual components, but are also available as audio only. Senior Connections creates partnerships between assisted living communities and cultural organizations in the University Circle neighborhood in Cleveland, combining virtual presentations by docents.
and curators with outings to corresponding museum shows (University Circle, 2018).

New technology makes viewing and interacting with museum collections accessible, regardless of geographic location or mobility. Digital applications such as Google Arts & Culture (2017) organize a vast conglomerate of cultural resources, including collections from more than 1,000 international museums, art historical information, 360-degree videos, virtual reality tours, and explorations of cultural sites and landmarks via Street View. Museum websites, including those of the Louvre (2017) and the Metropolitan Museum of Art (2018), boast offerings such as online tours, written content, and searchable collections. With the appropriate technology and minimal training, staff or volunteers can present these programs at little or no cost.

Virtual programs offer opportunities for both replication and collaboration. Smiraglia (2016) noted that intergenerational programming may have social and financial benefits for museums, and recommended partnerships with organizations serving older adults. This recommendation suggests that museums have an incentive to partner with senior living communities, and may be willing to support collaborations with financial or other resources. In addition to museums, senior living communities seeking to replicate virtual art learning programs might partner with colleges or universities that have online learning programs.

Meet Me at MoMA

Art museums also have presented innovative cultural programs for people living with dementia. The Department of Education at the Museum of Modern Art (MoMA) held its MoMA Alzheimer’s Project, Meet Me at MoMA, from 2007 to 2014. Meet Me at MoMA expanded the museum’s offerings for people living with dementia and their care partners, ultimately producing guides for “art-looking” and “art-making” for individuals, museums, families, and care organizations; lesson plans for engagement with art; a publication and website; and professional conference presentations, trainings, and workshops (Rosenberg et al., 2009).

Meet Me at MoMA’s programs are inherently social. Carrie McGee (Rosenberg et al., 2009, p. 80) commented, “We emphasize the social component of this program much more than we do with other programs. Socialization is a fundamental part of the program.” Museum visits are encouraged, with comprehensive guidelines including keeping the program at a low cost, establishing evaluations to meet program goals, and planning ahead to reduce stress. Meet Me at MoMA places equal emphasis on the comfort and engagement of individuals living with dementia and their care partners, museum educators, and community partners. One participant remarked, “We both love the program. All the instructors have been wonderful, dedicated, knowledgeable, sensitive. It’s so important to let the people with memory loss articulate their feelings, impressions, reactions” (Rosenberg et al., 2009, p. 88).

Meet Me at MoMA’s free program guides can be used by senior living providers to design a comprehensive art program, complete with virtual and/or in-person museum visits; facilitate regular art-looking groups using Meet Me at MoMA’s suggested modules or expanding to other works of art; provide art-looking or art-making opportunities for individuals and groups; offer opportunities for family member involvement through art activities; develop a flexible, dementia-friendly program that is suitable for multilevel communities.

Creating Art: Ruth’s Table

The nonprofit arts organization Ruth’s Table serves residents of Bethany Center, an independent living center for low-income adults, and its surrounding community in San Francisco’s Mission District, creating a hybrid space that operates both within and outside of seniors housing. Ruth’s Table (2017) holds weekly classes and workshops taught by an artist-in-residence and guest artists, and presents professionally curated, multigenerational art exhibitions. One upcoming project offers Bethany Center residents and their neighbors, as well as local artists and members of area senior centers, the opportunity to participate in Carnaval, a multicultural festival in the Mission District. A series of workshops offers attendees an opportunity to design costumes for the festival’s grand parade. With projects such as these, Ruth’s Table invites an exchange between older adults living in seniors housing and their surrounding community through a celebration of cultural life. Other seniors housing and residential care providers might adopt a similar model by opening participation in
creative activities to neighborhood residents, inviting local artists to lead workshops, or presenting a series of art activities that culminate in participation in a community cultural event.

**Creating Art: The Penelope Project**

The Penelope Project was an ambitious performing arts project undertaken between 2009 and 2011 by theater scholars and students at the University of Wisconsin-Milwaukee (UWM). The project was led by scholar, teacher, and artist Anne Basting; the Sojourn Theater Company; and residents and staff of Luther Manor in Milwaukee. Using the story of Penelope from the Odyssey as a narrative framework, the project culminated in a collaborative, semitheatrical performance held at Luther Manor.

Kristen Jacobs positions the Penelope Project within a larger evolution in long-term care, describing a person-centered activities program that advanced cultural change in Luther Manor. Ultimately, this kind of art-making can alter, as Jacobs put it, the “DNA” of long-term care institutions, bringing residents, staff, and visitors alike into a shared cultural experience and creative process (Basting et al., 2016). One resident commented that the Penelope Project “really got me up and I went down there every day. I got up and got involved” (Basting et al., 2016, p. 143). Positive appraisals by staff of Luther Manor focused on the project’s rigor and challenge to comfort zones, its intergenerational component, and its flexibility and openness. The project also invigorated UWM’s Department of Theatre, leading to a greatly enhanced community-arts curricula. Undergraduate students left with profoundly altered perceptions of aging and older adults; one of the most dramatic results among student participants was the jump from 13% presurvey to 79% postsurvey in the percentage who agreed with the statement, “I feel very comfortable when I am around an old person” (Basting et al., 2016).

The Penelope Project’s success lies to some extent in its management of complex collaboration. Grudinschi and colleagues (2013, p. 10) identified 10 of the most pressing challenges facing cross-sector collaboration for elderly care. The most relevant to the implementation of arts programs include uncertainty relating to the activity of the other organization; limited resources (financial, personnel, leadership); quality control; common rules and modes of action; and continuity of collaborative projects.

The Penelope Project was able to address most of these challenges through consistent and thorough communication; a specific project timeline with clear goals and outcomes; and defined, if flexible, roles for participants. Anne Basting (Basting et al., 2016, p. 30) described its person-centered approach as “inviting input from residents; echoing, affirming, and shaping their responses; and supporting creative expression and turning it into art.” This project was not without risk. Beth Meyer-Arnold, director of the day program at Luther Manor, commented that, “to try something new feels risky for staff and administration” (Basting et al., 2016, p. 30).

A successful program requires embracing that risk and supporting staff and residents throughout the process.

**ASSESSING SUCCESS AND PROGRAM IMPACT**

The arts are well-suited as individualized, holistic, and meaningful programming for older adults because of their flexibility and inherent openness to interpretation. These same qualities make it difficult to quantify their beneficial effects. There are, however, methods to assess the impact of arts programs. The Creativity and Aging Study used face-to-face questionnaires that included a general health assessment, a mental health assessment, and a social functioning assessment to examine the effect of arts programs over time on participating individuals compared against a control group (Cohen, 2006). The Penelope Project conducted surveys, interviews, and focus groups throughout its progression, and these findings were eventually published in book form. Notably, the Penelope Project assessed impacts not only on older adults, but also on participating staff, administration, and community partners (Basting et al., 2016). Meet Me at MoMA used self-rating scales, observer-rated scales, and take-home evaluations to examine the impact on individuals, group dynamics, and overall experience (Rosenberg et al., 2009).

When establishing a framework for evaluation, senior living communities might adopt some of the Pioneer Network’s (2018) values and principles for culture change. For example, the art program’s ability to foster genuine
relationships between staff and residents might be deduced through interviews and surveys, as well as observationally. Assessments might also measure the degree to which the program cultivated personal growth or development. Stephenson (2013) commented that changes in artwork may be a useful tool in measuring the advancement of artistic identity, a sense of purpose and meaning, a community’s support of risk taking, and movement toward gerotranscendence. An expansion of artistic repertoire, greater risk taking in content or materials, and a deeper exploration of the self through art-making are all positive markers (Stephenson, 2013).

According to de Medeiros and Basting (2014, p. 345),

A primary goal of cultural arts interventions is to create meaningful personal experiences for participants. It follows that because individuals vary in their tastes, interests, levels of engagement, and other deeply personal characteristics, people are likely to be affected in very different ways, even when participating in the same intervention.

Clear goals, shared and understood by all collaborators, including residents and program staff, community partners, and program facilitators, are essential. Throughout implementation and evaluation, individual experience should be in the foreground.

THE FUTURE

Design for the Arts

There are many ways to integrate the arts to enhance residents’ life satisfaction, from environment to activities. Regnier (2002) recommended using design to increase resident interest and comfort, and advised decorating with art that is recognizable and pleasant, as opposed to abstract, violent, or disturbing. Design can also be used for orientation and wayfinding, with personalized decorated doors, shadow boxes, and artwork outside of residents’ rooms. Open and visible activities, with design features such as windows, half walls, or balconies, can allow for participants to assess the group before making the decision to join (Regnier, 2002). Especially for art activities, which may be visually or aurally enticing but also intimidating or sensorily overwhelming, an ability to watch before entering is an important aspect of soliciting participation. Universal design can be used to ensure accessibility of activities for all residents. As noted in Building the Science, “individuals may be disabled only in a given context” (National Endowment for the Arts, 2013, p. 21).

Implementation

Senior living communities seeking to develop or expand arts programming have several key considerations:

- An understanding of and appreciation for the difference between social and medical arts programs and the ways in which they might operate conjointly
- A holistic accounting of stakeholder needs, including those of residents, staff, family members, facilitators, and community partners
- An openness to multiple creative modalities, including those that may not be encompassed within traditional definitions of the arts
- Programs that are designed for or inclusive of people living with dementia and those with physical disabilities
- The need for culturally competent programs and facilitators
- An appreciation for the opportunities and challenges presented by different facilitators, including teaching artists, art therapists, caregiving staff, and volunteers
- Person-directed programming that includes input from residents
- Effective use of existing resources, including those in the larger community. This endeavor may encompass strategic, well-managed cross-sector partnerships
- Architecture and design that encourage creative exchange and participation

CONCLUSION

Existing data support the positive impact of creative aging programs on various markers of healthy aging. Encouragingly, these impacts might lead to an overall cost benefit, although this has not been adequately studied (National Endowment for the Arts, 2013). What is known is that arts and culture promote socialization, communication, and problem solving, and they have been strongly linked to health benefits for older adults. Successful art programs in seniors housing produce both tangible and intangible benefits for the community overall.
In addition, these programs can be introduced gradually, building on available resources and infrastructure. Cross-sector partnerships with cultural institutions and the use of technology can increase the impact and reduce the cost of creative aging programs.

Surveys, interviews, and group discussions can be valuable ways to adjust programs to better meet the needs and expectations of stakeholders. Questionnaires examining physical and mental health can chart effectiveness over time and present data to support increased funding or program expansion. As research into creative aging becomes more robust, senior living communities can only stand to benefit through early adoption of comprehensive art programs and consideration of aesthetics and design. The arts present an opportunity to achieve multiple goals of benefitting residents’ health, improving staff morale, providing meaningful activities, and creating an engaging environment.

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Dimensions of Privacy and Aging in Place With Smart Home Technology: Legal Considerations for the Seniors Housing Industry

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ABSTRACT

The Problem: With an ever-expanding array of monitoring and surveillance technologies available to help older adults age in place, there are growing concerns about privacy violations.

Key Findings: Thus far, there is sparse litigation involving smart home technology. However, it will be difficult to proactively prevent the specter of invasion of privacy lawsuits without a more detailed understanding of the types of smart home technologies that older adults are most likely to find problematic and how they are linked to potential privacy harms. Additionally, privacy law has not kept pace with the plethora of smart home monitoring and surveillance technologies available for purchase and use.

Tips for Success: Seniors housing providers should consider the differences between monitoring and surveillance technologies in terms of what elderly residents are likely to be more comfortable with in the long term. Providers should also work closely with their legal counsel to develop and document resident privacy rights policies that address the potential use of smart home technologies. Such policies should be responsive to residents’ lived experience with the technology over time and open to revision if serious privacy concerns arise from living with smart home technology.

Keywords: Privacy, smart home technology, surveillance, monitoring, legal challenges
INTRODUCTION

Electronic monitoring and surveillance have become increasingly common across many domains of American life. This technology can geographically locate us with a global positioning system (GPS), tell us how many steps we have walked in a day, and measure our heartbeat, calorie consumption, and even our sleep patterns. As more technology is adopted, many of us take for granted the presence of surveillance and monitoring in our lives.

As of 2010, approximately 80% of Americans older than 65 lived with multiple chronic health conditions (Gerteis et al., 2014). While no standard definition of a chronic condition exists (Goodman, Posner, Huang, Parekh, & Koh, 2013), the Centers for Medicare & Medicaid Services (2012) has compiled a list of the most common chronic conditions among Medicare beneficiaries older than 65. In an attempt to maintain independence and autonomy, a growing number of older adults have installed monitoring and surveillance technologies in their residences.

This article examines the use of smart home technology and its potential impact on aging in place and privacy for older adults. Considered is the interaction between the potential benefits of smart home technologies and the pending legal challenges posed to seniors housing providers who are trying to balance the competing interests of safety, security, privacy, and independence for their residents.

SMART HOME TECHNOLOGY: AN OVERVIEW

In recent years, multiple technologies have been developed to help older adults live more independently in the community for additional years. The term smart home was introduced by the American Association of Home Builders in the mid-1980s (Gutman et al., 2017) and is defined as a residence that “is wired with technology features that monitor the well-being of their residents to improve overall quality of life, increase independence and prevent emergencies” (Demiris & Hensel, 2008, p. 33).

As various technologies have developed, a lexicon of terms and abbreviations has been established to define the broad domains covered. For example, AT is the abbreviation for assistive technology and is not identified with one particular technology but is used in relation to its various applications. AT can be used to support informal caregivers or to assist with shortages in professional care (Zwijsen, Niemeijer, & Hertogh, 2011). “Accordingly, when it comes to AT, there are many possibilities that could ultimately lead to a completely monitored and supervised life within an elderly person’s home” (Zwijsen et al., 2011, p. 419).

AAL stands for ambient assisted living technology, and it “utilizes body worn and passive environmental sensors, smart interfaces, and communications networks” to help monitor various activities for the older adult (Mortensen, Sixsmith & Beringer, 2016, p. 104). ICT stands for information and communication technology and includes such technologies as social networking sites and use of the internet to access health-related information (Sebastian et al., 2016). HMT stands for home monitoring technology and is considered “an umbrella of technologies that are designed for the purpose of supporting and enabling safe and independent living in the home” (Mihailidis, Cockburn, Longley, & Boger, 2008, p. 1). Examples of such monitoring devices are lifestyle monitoring systems (including Fitbits [Fitbit Inc.] and Apple watches [Apple Inc.]), fall-detection systems, and physiological health-monitoring systems.

AmI stands for ambient intelligence, and it aims to enrich an environment with technology (e.g., sensors and devices interconnected through a network) so that a system can be built that acts as an “electronic butler” (Cook, Augusto, & Jakkula, 2009, p. 278). The term Internet of Things (IoT) (Bronfman, 2016) is “the interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data” (Oxford Dictionaries online: https://en.oxforddictionaries.com/definition/internet_of_things).

As these descriptions show, several technologies contained under the different headings duplicate each other. For example, under IoT technology, one might find a home monitoring device such as an automatic sensor that turns on a light before the older adult enters the

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1 In order of prevalence, these include high blood pressure, high cholesterol, ischemic heart disease, arthritis, diabetes, heart failure, chronic kidney disease, depression, COPD, and Alzheimer’s disease.
2 For the purpose of this discussion, the focus is placed specifically on surveillance and monitoring technologies. In addition, the present analysis does not address the use of these technologies by older adults with cognitive impairments or dementia.
room, potentially preventing a fall. This same device can also be found within the HMT, AAL, and AmI technology domains. Common to all of these categories is their potential to impact elders’ independence, autonomy, and privacy in their living environments. As smart home technology has developed, it has been categorized and labeled in a number of ways to help consumers and scholars better understand its uses. Understanding these various classification schemes is important in relation to the broader field of gerontechnology.

One approach to smart home technology is to classify it in either of two categories: passive or active intervention devices (Cocco, 2011). Passive intervention devices “monitor a patient’s condition and safety without intervening in his or her care” (Cocco, 2011, p. 92). Examples include sensors that monitor heart rate, movement within the home, and general activity patterns. Data are gathered on the older adult, but they are not used to dynamically intervene in the life patterns or care. Conversely, active intervention devices take a more active role in patient care (p. 93). This technology includes sensors that are equipped with reminders, alerts, and medication assistance prompts.

Emerging smart technology also can be categorized as portable versus fixed (Kang et al., 2010). Finally, Camp and Lorenzen Huber (2017) describe a triad of technology terms: aware, active, and adaptive. Aware technologies are aware of the environment; for example, a system may know when a door is opened. Active technologies can respond to events; for instance, when the front door is opened in the middle of the night, an alert is triggered that the older adult may be wandering outside. Adaptive technologies can change with the individual.

THE DIMENSIONS AND CONTEXTS OF PRIVACY

Americans’ right to privacy, while not unequivocally outlined in the U.S. Constitution, does appear in various ways in the First, Third, Fourth, Fifth, Ninth, and Fourteenth Amendments (Sharpe, 2013). In their famous Harvard Law Review article, Warren and Brandeis (1890, p. 193) wrote, “The common law secures to each individual the right of determining, ordinarily, to what extent his thoughts, sentiments, and emotions shall be communicated to others.” Brandeis and Warren were concerned with what they saw as the encroachment of both government and the media into people’s personal lives. Groundbreaking in their discussion was a consideration of the connection between identity and privacy.

Warren and Brandeis’s original concept of the right to privacy thus embodied a psychological insight, at that time relatively unexplored, that an individual’s personality, especially his or her self-image, can be affected, and sometimes distorted or injured, when information about that individual’s private life is made available to other people (Glancy, 1979, p. 2).

As a Supreme Court justice, Brandeis also left an imprint on the notion of privacy through cases such as Olmstead v. United States. Although the Olmstead case itself focused on wire-tapping of a private phone line as a means to gather evidence in a criminal case, Brandeis’s dissent laid groundwork for further thought and later court rulings related to the notion of privacy.

Professor William Prosser was a legal scholar known for his extensive research on the issue of privacy. He expanded on Warren and Brandeis’s right to privacy discussion by stating that abuse of privacy was not just one tort, but rather four distinct torts. These include:

1. Intrusion upon the plaintiff’s seclusion or solitude, or into his private affairs
2. Public disclosure of embarrassing private facts about the plaintiff
3. Publicity which places the plaintiff in a false light, which is unfavorable in the public eye
4. Appropriation, for the defendant’s advantage, of the plaintiff’s name or likeness (Gavison, 1980)
In the almost 130 years since The Right to Privacy article was published, the concept of privacy has grown to encompass a number of separate domains such as online privacy, access to personal information, and the protection of health information. With the ever-expanding legal domain examining the legal concept of privacy, there are still a myriad of questions about what privacy really is and how it should be defined. In 1976, the Supreme Court noted that cases involving the right to privacy “defy categorical description” (Paul v. Davis, 1976).

Recent Attempts to Frame Privacy in the Legal Realm

In 1980, attorney Ruth Gavison (p. 423) wrote, “[P]rivacy must be a concept useful in legal contexts, a concept that enables us to identify those occasions calling for legal protection, because the law does not interfere to protect against every undesirable event.”

Gavison drew a careful distinction between the concept of privacy and the value placed on it. She noted that “the concept of privacy identifies losses of privacy” and the value placed on privacy can only be determined in relationship to a definition of privacy and why the loss of privacy is unwelcome.

Further, Gavison described privacy as being characterized by three elements: secrecy, anonymity, and solitude. Secrecy relates to the information known or not known about an individual, anonymity relates to the amount and type of attention paid to an individual, and solitude relates to physical access to an individual.

When considering modern technology and specifically smart home technology, one part of Gavison’s analysis is critical. While discussing the limits of the law in relation to privacy, she notes that “there are many ways to invade an individual's privacy without his being aware of it. … This absence of awareness is a serious problem in a legal system that relies primarily on complaints initiated by victims” (p. 457). If the individual is unaware that he or she is being surveilled, it is unlikely a complaint will be filed.

Daniel J. Solove, a law professor at George Washington University in Washington, D.C., is regarded as one of the world’s leading experts in privacy law. In 2006, Solove articulated a taxonomy of privacy to help identify legal problems related to privacy and to serve as a framework for the future development of privacy law. Solove described four activities that may impact privacy. These include: (1) information collection, (2) information processing, (3) information dissemination, and (4) invasion. The concept of surveillance is included in information collection. “Surveillance is the watching, listening to, or recording of an individual's activities” (Solove, 2006, p. 490). Relevant empirical research studies have found that surveillance and invasion are at the heart of what older adults have been most focused on.

I should point out that the collection of information through technology is not inherently negative. Data collected by smart home technologies such as sleep patterns and medication adherence are quite useful and sometimes life-saving. It is older adults’ lack of understanding about information privacy or their own rights that is frequently the true barrier. For example, Lorenzen-Huber, Boutain, Camp, Shankar, and Connelly (2011) conducted a study on home-based smart home technologies composed of 64 community-dwelling adults ranging in age from 70 to 85. The researchers found that participants “had naïve mental models about information privacy in general: what kind of data was collected, where the data were stored, who had access to the data, or what the data could be used for” (p. 239).

Invasion is perhaps the trickiest legal harm for seniors housing providers to consider. Invasion is actually different from the other privacy harms because it does not necessarily involve information. Solove (2006) described two types of privacy invasion: intrusion and decisional interference. Both are relevant to seniors housing providers.

Intrusion “involves invasions or incursions into one’s life. It disturbs the victim’s daily activities, alters her routines, destroys her solitude, and often makes her feel uncomfortable and uneasy” (Solove, 2006, p. 480). The feeling of one’s privacy being violated often has little to do with data or information gathering. Rather, the concern

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6 Solove's definition of information processing includes the way information is “stored, manipulated, and used.” Of particular concern is the potential secondary use of gathered data where the information is used “for a different purpose without the data subject’s consent. This activity certainly has implications for older adults who have Smart Home technology instilled in their residences.
focuses on the feeling of “being watched” and the potential behavioral changes people will make because they know that they are being surveilled. This sense of invasion appears to be particularly strong with respect to video camera technology. Mihailidis, Cockburn, Longley, and Boger (2008) conducted a study that revealed that older adults were most reluctant to install video cameras in their residence specifically because they were concerned about invasion of privacy. One older adult from the study noted, “The video camera in particular I would find very invasive. Whatever idiosyncratic things you might do [in your home], you can’t do” (Mihailidis et al., 2008, p. 6). Another respondent stated, “No I don’t think I’d like that one [video camera technology] whether I needed it or not. … It’s like everybody’s seeing you. Yeah, it’s like seeing everything you’re doing. No privacy I would say.”

What the participants highlight here is that if they feel they are being watched, they are less free to be themselves, which relates directly to Gavison’s discussion of solitude being a critical characteristic of privacy, as well as Brandeis’s claims that privacy is closely linked with our sense of personal identity. Seniors housing providers need to be mindful of the fact that in both senior apartments and assisted living, the older adult wants to feel at home. Even the feeling of being watched in one’s own home can be an invasion of privacy. Do adult children who often convince their parents to install such technology in their homes understand this?

OLDER ADULTS’ ATTITUDES TOWARD SMART HOME TECHNOLOGY

One of the critical questions for professionals in the seniors housing industry is, What do older adults think of these various technologies? A growing body of empirical research on the topic shows mixed and sometimes conflicting results.

Smart Home Technology Research: Perception and Projection

Nearly all of the research conducted in this field has focused on perceptions of smart technology and its projected usefulness (Bostrom, Kjellstrom, & Bjorklund, 2013; Bronfman, 2015; Chung, Demiris, & Thompson, 2016; Chung et al., 2014; Demiris & Hensel, 2008; Johnson, Davenport, & Mann, 2007; Sarkisian, Melenhorst, Rogers, & Fisk, 2003; Solaimani, Keijzer-Broers, & Bouwman, 2015). I coined a term to refer to this large body of scholarship: perception/projection research. The general structure of these studies is as follows. A sample of older adults views a video demonstration of particular smart home technologies, experiences an in-person demonstration of the technology, or is given the opportunity to test several technologies in a controlled setting. The elderly participants (usually in a focus group format) then “project” the technology’s perceived usefulness for themselves as they age in place.7 For example, Demiris and Hensel (2008) conducted a study at TigerPlace senior apartment complex near the University of Missouri in Columbia. Their goal was to measure residents’ expectations and perceptions of particular smart home sensor technologies. The study included a series of focus groups with the residents to gain their feedback about the perceived usefulness of a number of smart home technologies. During the focus groups, the participants were asked a series of questions related to particular sensor technology.

The facilitator described each sensor’s function and provided an example of how it is used. The facilitator then passed around the actual sensors, allowing participants to touch and directly observe the device (Demiris & Hensel, 2008).

Another example of a smart home perception study centers on the Gator-Tech smart home in Gainesville, Florida. The Gator-Tech smart home is a single-family dwelling equipped with smart home technology located near the University of Florida campus (and operated in association with the University of Florida Rehabilitation Engineering Research Center on Technology and Successful Aging). Three focus groups were held at the Gator-Tech home (consisting of 6 residents each, for a total of 18 participants), and all participants were older than 65 (Johnson, Davenport & Mann, 2007). When study participants arrived at the home, they received a tour and were given a brief demonstration of each of the smart technologies available.8 After the demonstration, the participants took part in a focus group in

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7 In other words, this the focus of the research has been on gathering older adults’ perceptions about how they might respond to such technology if they lived with it on a daily basis.
8 The technologies demonstrated included a smart floor remote monitoring system, voice activation of lighting in the home, a smart microwave, a smart mailbox, a smart front door, a reminder system, and a security system.
which they responded to questions about their perceptions of and reactions to the various technologies. Participants were asked to envisage the perceived usefulness of the monitoring devices for their lives.

The major drawback with many of the perception/projection studies is that seniors are only guessing about how they might respond to the technology in their homes and how the technology might impact their privacy, autonomy, and family relationships. While there is definite value in this type of research, the studies do not address the lived experience of interacting with these technologies over time and the possible unanticipated consequences of the experience. To date, I have been able to identify only two longitudinal studies that followed older adults and compared their perceptions and thoughts preinstallation with their perceptions and experiences after having the smart technology placed in their homes.

The first study was conducted in Sweden with 17 adults between the ages of 68 and 96 years (Essén, 2008). All of the participants were living alone in their own homes and agreed to wear a monitoring device that collected “activity data” about the user. The seniors were monitored for 6 to 7 months and then interviewed about their sense of privacy. The majority of study participants believed that the technology “contributes to them being able to stay safely in their own homes” (p. 132). Essén noted that many participants stated that they did not mind being monitored because it was being done by community care workers whom they already knew and trusted; their response might have been different if strangers were in this role.

The second longitudinal study was called Intelligent Systems for Assessment of Aging Changes (ISAAC) and was conducted by the Oregon Center for Aging and Technology (Boise et al., 2013). The sample consisted of 119 participants (92 participants had normal cognitive function, and 27 participants had mild cognitive impairment), and the technologies used in the study included “unobtrusive motion sensors” installed throughout the participant’s home, “contact sensors on doors and refrigerators, and computer-use monitoring.”

The ISAAC study is critical to the present discussion for three reasons: first, it is longitudinal and follows the participants for a full year. Second, the technology tested was placed in the homes of the older adults. Third, the study focused on how the passage of time might affect a person’s attitude toward the smart home technology. At the end of 1 year, study participants completed the same survey instrument they completed before installation of the technology. The results showed statistically significant increases among cognitively intact participants regarding concerns about their individual privacy and security. In other words, after a year of having the smart home technology in their residences, older adults’ concerns intensified instead of abated. Receptivity to video recording was of particular concern to the cognitively intact older adults.

Although the two studies were conducted with older adults living in their own homes, the findings are important to providers of assisted living and independent senior apartments because they raise questions that may have legal implications for the seniors housing industry. What happens if an elderly person moves into an assisted living residence or a senior apartment with smart home technology installed in all of its apartments, and over time the resident complains that his or her privacy is being invaded and wants the technology removed? How will this be resolved? Was the monitoring and surveillance technology included in the original signed lease or resident agreement? Further, what if the resident’s adult child is paying for the apartment or assisted living unit and wants the smart home technology to remain in the parent’s residence?

The Elder Care Tech Market: Concerns for Seniors Housing Providers

“There is no reason to believe that as people become older and less able to live fully independently, they lose
all interests beyond the protection of their health” (Dodds, 1996, p. 162).

This statement, while more than 20 years old, is increasingly relevant as more smart home technology is developed for older adults. While privacy law has not yet caught up with smart home technology, and lawsuits are scarce, this surely will not remain the case for long. Of particular concern is the fact that retail chains such as Lowe’s and Best Buy have introduced their own smart home technology products marketed specifically for the care of older adults.

CNN reported that by 2020, “elder care tech” could be a $20 billion a year industry (Kelly, 2014). There are more and more products being marketed to adult children that offer “care” and “oversight” services to their elderly parents. For example, the Lively Mobile medical alert device (GreatCall) is available through retailers such as Walmart, Rite Aid, and Amazon. It is worthwhile to examine two of these elder care tech products more closely because of their possible ramifications for the seniors housing industry.

Iris by Lowe’s is a smart home system that targets different populations with mix-and-match smart instruments and gadgets. The Iris by Lowes website suggests family members “place a motion sensor near an elderly loved one’s bedroom door to get alerts.”

Particularly distressing for providers of senior care and housing is the fact that Lowe’s markets this package as offering care for an older adult. The description of the system also is exceedingly ageist. The website directs all information toward someone other than the older adult who will be living with the technology. Additionally, the description of the system, at best, infantilizes the older adult. The full ad reads as follows:

Place a motion sensor near an elderly loved one’s bedroom door to get alerts. And use a contact sensor on your fridge or cabinet to know when they eat, ensuring their routine is running smoothly and they are up and about. For added peace of mind, include a camera in your setup so you can check in if you don’t receive your usual notifications. (https://www.irisbylowes.com/).

With this plan, up to six individuals can receive alerts on the older resident’s activities.

Best Buy markets a much more elaborate elder care system. The system is called Assured Living and is specifically marketed to adult children, not older adults themselves. “Wireless sensors track your loved one’s activity in their home.” Primary selling features of the system are the adult child’s ability to “remotely activate door locks and lights” in their parents’ home, “access the doorbell camera to see and speak to visitors” in the home, and “set reminders to take a medication or for appointments” (https://www.bestbuy.com/site/clp/assured-living/pcmcat1497550757159.c?id=pcmcat1497550757159).

There is a real danger with companies and retail chains such as Best Buy entering the elder care domain when they try to package technology as elder care. The company also is making false claims that Assured Living offers adult children “a noninvasive solution to caring for your parents as they age.”12 Does monitoring by Best Buy really equal “care” if the Geek Squad knows nothing about elder care or privacy rights? Also, in whose eyes is it noninvasive? Further, if adult children are purchasing and arranging for installation, are they any more aware of the extent of surveillance to which they are subjecting their parents? Is it reasonable for a random stranger on the Geek Squad to be able to surveil an elder’s home?

**Monitoring Versus Surveillance**

Numerous smart home technology scholars have noted the potential impact that monitoring and/or surveilling older residents has on their sense of privacy (Chung et al., 2016; Courtney, et al., 2008; Kang et al., 2010; Kenner, 2008; Peek et al., 2015). While the studies did not focus on the differences between monitoring and surveillance technologies, I have found that this theme is prevalent among elders’ responses to the technology. For example, Lorenzen-Huber and colleagues (2011, p. 240) noted that the “granularity of the data [collected] affected the degree

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12 It should be noted that Best Buy’s Geek Squad is responsible for installing the Assured Care elder care system and providing oversight.
to which participants felt that the devices were acceptable or privacy invasive.” Further, these authors (2011, p. 243) noted that video surveillance data collection for the older adults was equated with “being watched, or the equivalent of being ‘in prison.’ ” Elders feel controlled or managed when they are being directly surveilled via cameras (Kenner, 2008). Studies also reveal older adults’ displeasure with being watched during certain activities. Bathing, sleeping, and using the toilet were activity domains in which research participants felt their privacy was invaded. By contrast, monitoring was not perceived as being as intrusive as being watched. Many studies (Courtney et al., 2008; Czaja et al., 2006; Gutman et al., 2017) showed that elderly participants who used or tested monitoring technologies found them less invasive because measuring their heart rate did not involve directly watching them, and much of the data collected through these monitoring devices were either of use or interesting to them as individuals. Finally, Peek and colleagues (2015) concluded that acceptance of smart home technology is a complex issue for older adults.

Our results show that acceptance of technology while aging in place is highly dependent on older individuals’ specific personal, social, and physical context. This implies that older adults’ acceptance of technology is not just about the technology itself (Peek et al., 2015, p. 237).

FINAL CONSIDERATIONS FOR SENIORS HOUSING PROVIDERS

Smart home technology presents multilayered challenges for the seniors housing industry. Some scholars believe that regulating smart home technology may be necessary to prevent its misuse (Cocco, 2011; Simshaw et al., 2016). The present commentary highlights three potential legal challenges for the seniors housing industry.

1. Longitudinal research suggests that privacy concerns among older adults living with smart home technology intensify over time, especially with regard to surveillance.
2. Privacy law has not yet caught up with the rapid explosion of elder care tech products on the market.
3. The marketing of elder care/smart home technology appears to be directed almost exclusively toward adult children, yet they will not be the ones living with the technology.

These three issues point to two critical questions seniors housing professionals are facing: what are the legal risks of preventing the older adult (or more likely the adult child) from installing smart home technology in their senior apartment or assisted living residence? Conversely, what is the legal risk of allowing such technologies in senior residences? These questions are likely to be answered on a state-by-state if not facility-by-facility basis. In the meantime, what can seniors housing providers do to address the complex domain of privacy rights?

First, they can bear in mind the following: “Older adults view privacy as much more contextual, individualized, and influenced by psychosocial motivations of later life” (Lorenzen-Huber et al., 2011, p. 246). Second, they can work closely with their legal counsel to develop privacy rights policies for residents that (1) directly address the types of monitoring and surveillance technologies described here; (2) can be revisited after their residents live with the technology for a period of time; and (3) are sensitive to the lived experience of their residents rather than simply to their perceptions and projections.

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1 For clarity, the prevalence of a disease such as Alzheimer’s is the proportion of people who have the disease at any given time, while incidence refers to the probability of an individual’s developing the disease.
REFERENCES


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