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Comparing Families and Staff in Nursing Homes and Assisted Living: Implications for Social Work Practice

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Abstract

Nursing homes and residential care/assisted living settings provide care to 2.4 million individuals. Few studies compare the experience of and relationships between family and staff in these settings, despite ongoing family involvement and evidence that relationships are problematic. Data from 488 families and 397 staff in 24 settings examined family involvement and family and staff burden, depressive symptoms, and perceptions; and staff absenteeism and turnover. There were few differences across setting types. While conflict rarely occurred, there was room for improvement in family-staff relations; this area, and preparing family for their caregiving roles, are appropriate targets for social work intervention.

Keywords

Involvement; relationships; burden; long-term care; turnover

Introduction

The majority of older adults who require long-term supportive care receive it from family members. When families are unable to provide this care, two key options exist for residential long-term care: nursing homes (NHs) and residential care/assisted living (RC/AL) settings. NHs are federally regulated and provide licensed nursing care 24 hours a day, whereas RC/AL communities are state regulated and provide variable nurse staffing (Hodlewski, 2001). In past decades, NHs dominated the long-term care industry, but over the last twenty years, the number of RC/AL beds increased 97%, while the number of NH beds grew by only 7% (Harrington, Chapman, Miller, Miller, and Newcomer, 2005). Based on occupancy rates ranging from 86% (NHs) to 88% (RC/AL), today an estimated 2.4 million older adults reside in these settings, almost two-thirds (1.5 million) in one of the country's 16,100 NHs, and the remainder (855,000) in one of 31,100 RC/AL communities (Centers for Disease Control and Prevention, 2011; Park-Lee et al., 2011).

There are inherent reasons to want to compare NHs and RC/AL settings, in large part because they provide health and supportive services to individuals who in some cases exhibit similarities, most notably related to dementia status (Zimmerman et al., 2003).

Consequently, understanding the ways in which NHs and RC/AL communities are the same and different, and their related outcomes, could potentially promote better care and inform policy. Some research has compared NHs and RC/AL settings, and while differences have been found in terms of care and outcomes, there also are many areas in which these settings do not differ. For example, a study of quality of life for residents with dementia found no differences across setting type in change in quality of life over six months, but some indication of better quality of life for those in RC/AL (Zimmerman et al., 2005). A similar study following residents for one year found no differences between settings in terms of rates of mortality, hospitalization, new or worsening morbidity, or change in resident function, cognition, behavior, depression, or engagement, but RC/AL settings more often hospitalized residents with mild dementia (Sloane et al., 2005). At the end of life, the quality of dying did not differ by setting (Caprio et al., 2008), but problems with cleanliness, intake, and symptom burden were worse for decedents in NHs than for those in RC/AL (Hanson et al., 2008). For those dying with dementia, no differences were evidenced in the use of sedatives, CPR, or feeding tubes; treatment for pain, shortness of breath, and hygiene; skin ulcer incidence; frequency or type of family involvement; advance care planning and decision making regarding and use of palliative care interventions (including hospice); hospitalization; psychosocial well-being; being alone at death, and overall impressions of care. However, NHs more often used physical restraints, nutritional supplements, intravenous fluids, and antibiotics, whereas in RC/AL settings families were in closer contact with the resident's physician (Sloane, Zimmerman, Williams, and Hanson, 2008), presumably because they are more likely to take their family member to visit the doctor and so be present at the time than are family members of NH residents (Biola et al., 2007). Finally, no differences were found between settings in relation to staff training and perceived competence to assess and treat depression (Gruber-Baldini et al, 2005), behavioral symptoms (Boustani et al., 2005), mobility limitations (Williams et al., 2005), restricted intake (Reed, Zimmerman, Sloane, Williams, and Boustani, 2005), and decreased activity involvement (Dobbs et al., 2005), although more direct care providers in NHs were trained to assess and treat pain (Williams, Zimmerman, Sloane, and Reed, 2005).

Absent from the literature comparing NHs and RC/AL settings, however, is an in-depth quantitative examination of the characteristics of the families and staff of these settings, including their roles, perception of the other, and well-being. Attention to this area is critical because families continue to stay involved providing care and support after their relative moves to a long-term care setting (Port et al., 2005), yet there is evidence from earlier NH work that families feel guilt, burden, and an obligation to oversee care (Maas et al, 2004), and that substantial tension exists between families and staff regarding care (Vinton and Mazza, 1994). This tension not only causes family distress, but also is linked to staff strain and stress (Abrahamson, Sutor, and Pillemer, 2009). Further, staff stress contributes to absenteeism and turnover which are detrimental to the quality of care (Castle and Engberg, 2005). Given that families are similarly relinquishing care when their relatives move into an RC/AL setting, and that there may be tension with staff in relation to caregiving in this setting as well, it could be hypothesized that few differences exist in these areas between NHs and RC/AL. Alternately, if differences do exist, they may suggest areas in which differing policies or practices are beneficial for families, staff, or both, which has implications for social work practice.

Consequently, in recognition of the importance of family and staff in long-term care, we examined and compared NHs and RC/AL settings in relation to family involvement as well as family and staff burden, depressive symptoms, and perceptions of their own and the others' role. In addition, as potential outcomes of these characteristics, we examined staff likelihood of quitting, absenteeism, and turnover.

Methods

The study included six NHs and 18 RC/AL settings in North Carolina, participating in the Collaborative Studies of Long-Term Care. More RC/AL settings than NHs were included due to their comparatively smaller size. Potential settings had to be within an approximately one hour drive from the research office, and were matched in pairs by type (RC/AL or NH), region (urban or rural), chain affiliation (when possible), and size (within 25%). Administrators were sent a letter of invitation and then visited to explain the study procedures.

Within each setting, a random sample of approximately 20 residents were identified who met eligibility criteria (i.e., named by the administrator as having a family member 21 years of age or older who visits at least once a month). Families were sent a letter and then contacted by telephone to explain the study procedures, which included a telephone interview; if the contacted individual was reported to not be the one who knew the most about the resident, an alternate individual was identified and contacted. For each participating family member, the direct care worker who was at least 21 years of age, knew the most about the family member's relative, worked at least 20 hours/week during the morning or afternoon shift, and had worked in the setting for at least one month was identified, recruited, and interviewed in person. The sample size was determined in anticipation of refusals, and so no replacement was required if an administrator, or family or staff member, chose to not participate. Individuals provided consent before they were interviewed, and all procedures were approved by the Institutional Review Boards of the University of North Carolina at Chapel Hill and Duke University.

Measures

Both family and staff provided information related to family-staff interpersonal conflict and to their own depressive symptoms.

- Interpersonal conflict was measured with the Interpersonal Conflict Scale (reliability coefficient alpha 0.84) (Abrahamson, Pillemer, Sechrist, and Suito, 2011; Pillemer and Moore, 1989). An example item is: *How often do you disagree with staff/family members about your relative's meals or food (never to every day)?*
- Depressive symptoms were measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), a widely used measure which demonstrates high internal consistency (0.85–0.90) and good ability to discriminate between inpatient and population samples.

Families also provided information about their involvement, perceptions of caregiving and care, and burden.

- Involvement in care in the last month in 16 areas was measured using a modified and expanded version of Murphy et al.'s Involvement scale (alpha 0.76–0.77) (Murphy et al., 2000).
- Perception of caregiving was measured using three subscales (conflict with staff, guilt, and loss) of the Family Perception of Caregiving Role instrument (Maas et al., 2004). An example item is: *Staff listen to my directions for my relatives' care, but ignore them if they choose (strongly disagree to strongly agree)*. Cronbach alpha for these scales ranges from 0.70 – 0.84.
- Perceptions of care were measured with three of the Family Perceptions of Caregiving Role subscales (management effectiveness, physical care, and activities for residents; Maas et al., 2004). *An example item is: Enough activities are*

provided for my relative (strongly disagree to strongly agree). Cronbach alpha for these scales ranges from 0.87 – 0.97.

- Caregiving and burden were measured using the three subscales of the Lawton Caregiving Appraisal measure (burden, satisfaction, and impact; Lawton, Kleban, Moss, Rovine, and Glicksman, 1989), and three subscales (social consequences, psychological burden, and guilt; Ankri, Andriew, Beaufils, Grand, and Henrard, 2005) of the Zarit Burden Interview (Zarit, Reever, and Bach-Peterson, 1980). The validity of these measures is evident as burden scores differ significantly based on the severity of a care recipient's cognitive and functional impairment, the relationship between the care giver and recipient, and the type of care provided. An example item is: *How often do you feel very tired as a result of caring for your relative (never to nearly always)?*

In addition, staff provided information about their perceptions of caregiving, attitudes toward families, and burnout/stress.

- Perceptions of the caregiving role were measured using the four subscales of the Staff Perception of Caregiving Role instrument (burden, frustration, dominion, and exclusion of families; Mass et al., 2004) *An example item is: I feel like some families' suggestions and requests interfere with staffs' abilities to care for residents (strongly disagree to strongly agree).* Cronbach alpha for these scales ranges from 0.70 to 0.84.
- Staff attitudes were measured using the three subscales of the Attitudes Toward Families Checklist (disruption, family as partners, and family relevance; Maas et al., 2004) (alpha 0.58 – 0.64), and the Family Behaviors and Family Empathy Scales (Pillemer et al., 2003) (alpha 0.55 – 0.69). *An example item is: Most family members rarely come to see their relatives (strongly disagree to strongly agree).*
- Burnout and stress were measured using the three subscales of the Maslach Burnout Inventory (emotional exhaustion, depersonalization, and lack of personal accomplishment; alpha 0.71–0.90; Maslach, Jackson, and Leiter, 1996); four of nine items from the Work Stressors Inventory caring for residents subscale (Schaefer and Moos, 1993); and the Hassles and Uplifts Scales (Elder, Wollin, Hartel, Spencer, and Sanderson, 2003) which has been shown to discriminate between nurses with more and less training and experience. *An example uplifts item is: I am uplifted when I know the resident well (not an uplift to never experienced).*

Staff also responded to three items modified from the National Nursing Assistant Survey, including the extent to which they feel respected by families, whether they would recommend the workplace, and how likely it was they would leave their job (Squillace, Remsburg, Bercovitz, Rosenoff, and Branden, 2007). Finally, additional data were collected to describe the setting, residents, and respondents, as well as staff absenteeism and turnover. For the latter, administrative staff were interviewed on a monthly basis over one year to report whether each staff member participating in the study missed shifts, quit, or was fired.

Analyses

Absenteeism was calculated as the average number of hours missed per month (assuming a shift was equal to eight hours), using only those months that the staff person was employed. Turnover was calculated by dividing the number of staff who left at any time during the year by the total number of staff participating at baseline.

Tests for differences in family member, resident, and staff characteristics between NHs and RC/AL settings used nonlinear and linear mixed models to adjust for clustering within sites. Comparisons of site characteristics between the two setting types were conducted using T-tests. Differences in mean scores on family and staff measures were also tested using linear mixed models to adjust for clustering. Models were run first with only the setting type as a fixed effect, then with a number of covariates included as fixed effects to adjust for statistically significant differences between setting types in resident, family, staff, and setting characteristics. The covariates included are listed in table footnotes.

Reports of the frequency of family involvement were generally positively skewed and clustered around a limited number of values (e.g., 1 to denote once per month, 4 to denote once per week, 30 to denote once per day). Therefore, the reported frequencies for each type of activity were converted into ordinal variables by grouping responses into categories using existing breaks in the data to determine cutpoints. Then, comparisons of the setting types on the frequency of family involvement were tested using a SAS macro which implements a generalized estimating equation (GEE) analysis of categorical ordinal data and produces robust variance estimates that minimize Type II error (Lipsitz, Kim, and Zhao, 1994). An exchangeable correlation matrix with sites as clusters was specified for the GEE analysis. These analyses were run first with only the setting type as a fixed effect, then with covariates added as described above. The table footnote lists the covariates.

Results

In total, eight NHs and 21 RC/AL settings were invited to participate; agreement from the administrator was not obtained in a timely manner for two NHs and three RC/AL settings, resulting in a 75% and 86% participation rate, respectively. All settings were for-profit. As shown in Table 1, NHs and RC/AL settings did not significantly differ in their occupancy rate (83% and 93%, respectively) or the proportion of residents with dementia (48% and 59%, respectively); however, NHs were larger ($p=0.018$), had been in operation longer ($p=0.001$), and had more residents receiving Medicaid ($p=0.012$).

A total of 488 family respondents (135 from NHs and 353 from RC/AL settings) participated in the project (22% refusal rate; 18% NH, 24% RC/AL), as did 397 staff respondents (106 from NHs and 291 from RC/AL settings; 1% refusal rate; 0% NH, 0.9%, RC/AL). Based on family report, residents did not differ across setting type in terms of age, gender, education, or length of stay, but those in NHs were rated by family and/or staff as being in poorer health ($p=0.001$), and having poorer quality of life ($p<0.007$) and more functional ($p<0.001$) and cognitive ($p=0.033$) impairment and depressive symptoms ($p=0.012$) than those in RC/AL settings; they also were more likely to be receiving Medicaid ($p=0.004$).

Family respondents did not differ based on age, gender, education, marital or employment status, but those in NHs were more likely to be a racial minority (43% vs. 17%; $p=0.015$), in poorer health ($p=0.016$), and less likely to be children (55% vs. 68%; $p=0.020$). Staff respondents did not differ based on gender, education, race, months working in the setting, or hours working in a typical week, but those in NHs were older (43 vs. 39 years of age; $p=0.040$) and more likely to be nurses (24% vs. 1%; $p<0.001$).

In adjusted models, family involvement over the previous month did not differ across settings in terms of the duration of their visits (approximately two hours) or the number of times they took the resident out, phoned/wrote letters, were involved in care related to mobility or eating, helped out at the setting, discussed care with staff, or attended training sessions, sponsored activities, or activities specifically intended for family members (see

Table 2). However, families in NHs tended to visit their relative more often (21.7 vs. 14.9 times, $p<0.001$) and to be more involved in resident grooming/appearance (6.2 vs. 3.5 times, $p=0.033$), laundry (3.2 vs. 1.1 times, $p=0.039$), playing games or engaging in conversation (19.8 vs. 12.5 times, $p<0.001$), and participating in service plan/care meetings (0.4 vs. 0.2 times, $p=0.020$) than families in RC/AL settings. On the other hand, families of NH residents were less involved doing outside activities for the resident (4.0 vs. 4.4 times, $p<0.001$) and monitoring finances (2.6 vs. 7.6 times, $p<0.001$) than were RC/AL families.

As shown in Table 3, in adjusted results the majority of comparisons related to caregiving roles, perceptions of care, interpersonal conflict, depressive symptoms, burden, attitudes toward the family, and burnout did not differ between respondents in NHs and RC/AL settings, and where statistically significant differences existed, they were of little magnitude and clinical significance. Families of NH residents had more guilt (2.29 vs. 2.27, $p=0.002$) and depressive symptoms (2.61 vs. 2.43, $p=0.040$), but less burden than those in RC/AL settings (17.12 vs. 18.87, $p=0.035$). Staff in NHs reported more uplifts associated with caregiving than those in RC/AL settings (89.77 vs. 86.66, $p=0.028$) and were more likely to recommend their setting as a place to work (3.38 vs. 3.31, $p=0.020$). On the other hand, they were absent from work more often per month than RC/AL staff (4.9 hours vs. 3.4 hours; $p=0.004$) and reported more stress (10.88 vs. 10.50; $p=.047$).

Also evident in Table 3 is that in general, family perceptions of their caregiving role were modestly more favorable than neutral (scores ranged from 2.27 to 2.79, where 3 = neither disagree nor agree), and are characterized less by guilt than by conflict with staff and loss. Perceptions of care were similarly scored (slightly more favorable than neutral), with more favorable opinions about physical care than about management and activities for residents. Both families and staff reported that interpersonal conflict with the other averaged between never and once a month (although staff reported it was more frequent than did families; 11.87 vs. 10.16), and both scored similarly on the CES-D (2.61 – 2.62 where 4 indicates clinically significant depression; Irwin, Artin, and Oxman, 1999). Further, families never or rarely experienced burden from and were frequently satisfied with their role in caregiving.

Staff perceptions of their caregiving role were highest (least favorable) for frustration (> 3.5 where 3 = neither disagree nor disagree) and lower (more favorable) for feelings of burden. Their attitudes toward families were most favorable in seeing them as care partners (score > 3.9) and they were more disposed toward inclusion rather than exclusion of families (score = 2.14). They felt families sometimes expressed empathy and that they were sometimes or fairly often treated well and respected by families. They seldom or sometimes experienced work stress; experienced between minor and significant hassles and between significant and tremendous uplifts; were emotionally exhausted less than once a month; and experienced personal accomplishment a few times a week. Finally, they reported they would more than probably recommend their workplace as a place of employment, and were between not at all and somewhat likely to leave their job in the next year; turnover averaged 30–34 percent.

Discussion

Similar to previous studies comparing other characteristics between NHs and RCAL settings, the results of this study show few statistically significant differences and virtually no clinically significant differences between family and staff across settings in relation to caregiving roles, perceptions of care, interpersonal conflict, depressive symptoms, burden, attitudes toward the family, and burnout. These findings suggests that overall, the practices and policies in both settings have a similar impact on family-staff relationships and attitudes. Considering the higher acuity of NH residents, it is likely that the increased involvement and more medical training of staff in those settings results in a balance of relations between

families and staff in the context of differing resident care needs. Furthermore, interpersonal conflict occurs rarely – a favorable finding suggesting that relations may have improved from earlier NH reports (Vinton and Mazza, 1994), possibly as a result of concerted efforts in the industry to improve relations (Koren, 2010). However, scores in the neutral range related to family and staff caregiving roles and family perceptions of care suggest room for improvement in family-staff relations in both settings, which may be addressed by social workers or others in a care or administrative capacity.

The fact that it will more likely be “others” attending to these needs is suggested by regulations stipulating that only NHs with more 120 beds are required to have a full-time social services provider on site, whereas smaller NHs have a “designee” and consultant oversight; in RC/AL, there are no standard regulations whatsoever regarding social services (Zimmerman, 2008). That said, some social workers who are not directly employed by RC/AL settings do provide services to their residents and families, such as case managers for Medicaid waiver programs and hospital discharge planners who facilitate RC/AL admission (Zimmerman, Munn, and Koenig, 2006). Thus, these results and their implications are important for social workers in settings other than NHs and RC/AL, and also for persons other than social workers who provide direct care and consultation to NH and RC/AL staff. While the neutral scores do not suggest concern related to family-staff relations and attitudes, they do indicate areas in which NH and RC/AL providers might be vigilant so as to prevent later problems. Perhaps these providers can empower social workers to pre-emptively attend to perceptions of care related to management, care, and activities for residents, as these were rated less favorably. For staff, it seems most fruitful to monitor and strive to avoid frustration.

Differences between settings also suggest areas for social work attention. Families in NHs visited 50% more often than did those RC/AL settings (21.7 vs. 14.9 times/month), while RC/AL families monitored finances three times more often (7.6 vs. 2.6 times/month). Also, while the differences were small, families in NHs had statistically significantly more symptoms of depression but experienced less burden than those in RC/AL settings. An earlier study comparing families of residents with dementia also found that RC/AL families more often monitor care (in relation to finances, medical oversight, and overall well-being) and report better health yet more burden (Port et al., 2005); the replication of these findings suggests they are generalizable. Therefore, in terms of promoting consumer choice, prospective residents and families who have the opportunity to choose between setting types might be encouraged to consider the family’s ability to visit and monitor care, and their ability to prevent or tolerate burden. Helping family members understand the types of caregiving in which they will be active may ease their involvement (Zimmerman et al., 2008). Further, if RC/AL care is chosen, at or before the time of move-in, a social worker, the administrator, or other care provider might advise their family of the broad spectrum of caregiving they may be called upon to perform, and if possible, put supports in place if they are unable to fully meet these demands.

In terms of possible outcomes related to staff, a small but significant difference between settings was the increased absenteeism of NH staff compared to RC/AL staff. Other work has found absenteeism to be associated with poor health and work-related attitudes (Schalk, 2011; Schmidt, 2010), but our study did not find a significant difference between setting types in these areas, suggesting that other unmeasured differences may underlie this finding. Admittedly, the 1½ hour difference/staff/month translates to only approximately 5% of an individual’s work time, and is not likely to affect relationships. However, considering that the average amount of time a direct care worker spends with a resident averages less than 2¼ hours a day (General Accounting Office, 2002), this absenteeism constitutes valuable time. Further intriguing is that while previous research (Cohen-Mansfield and Rosenthal,

1989) found older and higher level staff evidenced lower absenteeism (presumably due to fewer outside demands such as child care and more of a sense of responsibility), NH staff in our sample were in fact older and more likely to be nurses. Because continuity of staffing and sufficient staffing are important for care (Abt Associates Inc., 2001), the difference between NHs and RC/AL settings related to absenteeism merits further study and may suggest avenues for improvement.

A relevant question is the extent to which the data from this study are generalizable. Only 24 settings in North Carolina were included, which does not adequately reflect the diversity of RC/AL (Zimmerman et al., 2003). In addition, the smallest RC/AL setting had 50 beds, which excludes more than the 19% of residents served in the 66% of RC/AL settings that have 25 or fewer beds (Park-Lee et al., 2011). It is quite possible that both family involvement and family and staff interactions differ in smaller settings, for example because the proportion of minority residents is larger in smaller settings (Zimmerman et al., 2003) and because minority residents are more likely to be connected to kinship networks (Burton and Dilworth-Anderson, 1991). Similarly, study requirements dictated that to be eligible, family had to visit at least once a month. While this criterion omitted family who visit less often, the majority of LTC residents have at least weekly visits, and so these data are likely applicable to the majority of family (Hopp, 1999; Tornatore and Grant, 2002).

Limitations notwithstanding, findings that replicate other work related to family involvement and burden appear robust, and those related to absenteeism are important to pursue. Also important to consider is that among this sample of 488 family members and 397 staff, perceptions of caregiving and care indicated room for improvement, including related to family feelings of loss and perceptions of activity-related care, as well as staff feelings of frustration and considering families as being relevant to care. Further, it may be beneficial for social workers to prepare family members for the many roles they may be called upon to play, and to encourage them to become more involved in joint efforts, such as participating in service/care plan meetings. Developing and testing new programs to promote joint caregiving may improve the satisfaction of both families and staff, and potentially improve the quality of life of long-term care residents in both NHs and RC/AL settings.

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Table 1

Family, Resident, Staff, and Setting Characteristics, by Setting

Characteristic	NH		RC/AL	
	Mean or N	SD or %	Mean or N	SD or %
Setting	(N=6)		(N=18)	
For-profit (N, %)	6	(100%)	18	(100%)
Years in operation	24.0	(15.6)	8.3	(4.7)
Number of beds	106.0	(30.8)	81.7	(26.8)
Occupancy rate	93.0	(2.9)	83.3	(14.7)
Percent of residents with dementia diagnosis	59.2	(25.6)	48.4	(31.8)
Percent of residents with Medicaid or receiving state assistance	73.3	(10.8)	38.4	(30.4)
Residents	(N=135)		(N=353)	
Age	79.5	(11.5)	81.5	(11.7)
Female (N, %)	98	(75%)	256	(75%)
Education more than high school (N, %)	29	(23%)	117	(35%)
Length of stay (months)	32.8	(27.1)	30.0	(32.5)
General health is good to excellent (N, %)	49	(37%)	169	(50%)
Activities of daily living (ADL) ¹	16.7	(8.7)	4.8	(6.9)
Instrumental activities of daily living (IADL) ²	3.0	(2.3)	5.4	(3.3)
Cognitive status ³	4.1	(3.4)	2.6	(3.0)
Quality of life (family rating) ⁴	2.4	(0.5)	2.7	(0.5)

Characteristic	NH		RC/AL	
	Mean or N	SD or %	Mean or N	SD or %
Depression (staff rating) ⁵	2.5	(2.1)	1.8	(1.9)
				.012
Medicaid pays for care (N, %)	64	(47%)	98	(28%)
				.004
Family	(N=135)		(N=353)	
Age	58.7	(11.9)	58.3	(11.0)
				.83
Female (N, %)	103	(76%)	254	(72%)
				.13
Married (N, %)	89	(66%)	265	(75%)
				.06
Minority race (N, %)	57	(43%)	61	(17%)
				.015
Relationship to resident (N, %)				
Spouse	14	(10%)	20	(6%)
				.020
Sibling (including in-laws)	16	(12%)	29	(8%)
Child	74	(55%)	239	(68%)
Other relative/friend	30	(22%)	65	(18%)
Education, more than high school (N, %)	89	(66%)	276	(79%)
				.06
Employed (N, %)	76	(56%)	205	(58%)
				.76
General health is good to excellent (N, %)	109	(81%)	317	(90%)
				.016
Staff	(N=106)		(N=291)	
Age	42.6	(12.1)	38.5	(13.1)
				.040
Female (N, %)	98	(93%)	279	(96%)
				.19
Minority race (N, %)	73	(69%)	197	(68%)
				.89
Education, more than high school (N, %)	68	(64%)	159	(55%)
				.08
Months working in this setting	50.4	(70)	31.7	(39.0)
				.07

Characteristic	NH		RC/AL		p
	Mean or N	SD or %	Mean or N	SD or %	
Hours worked in typical week	39.4	(6.6)	37.1	(6.1)	.08
Staff role (N, %)					
Nurse (RN/LPN)	25	(24%)	2	(1%)	<.001
Direct care worker	62	(59%)	250	(86%)	
Other	19	(18%)	39	(13%)	

¹ ADL score ranges from 0 – 28, lower scores indicate better ADL performance.

² IADL scores range from 0 – 16; higher scores indicate better IADL performance.

³ MDS-COGS, range 0–10, lower scores more desirable, 2 may be indicative of dementia.

⁴ Quality of Life- Alzheimer’s Disease, range 1–4, higher scores more desirable.

⁵ PHQ-9, range 0–27, lower scores more desirable.

Table 2

Family Involvement in the Last Month, by Setting Type

Type of family involvement	NH (N=135)		RC/AL (N=353)		Unadjusted	Adjusted
	Mean	SD	Mean	SD	p	p ^a
Average length of visit (in hours)	1.8	(1.6)	2.3	(7.2)	.65	.90
Number of times:						
Visited resident	21.7	(15.5)	14.9	(17.2)	<.001	<.001
Took resident out	0.5	(1.1)	3.0	(3.7)	<.001	.10
Phoned/wrote letters	8.6	(16.5)	12.8	(18.2)	<.001	.31
Got involved walking or moving resident	10.0	(11.7)	6.0	(8.6)	<.001	.24
Got involved related to eating well	7.7	(11.2)	4.6	(8.5)	.041	.81
Got involved related to grooming/appearance	6.2	(8.9)	3.5	(7.3)	.027	.033
Did resident's laundry	3.2	(4.7)	1.1	(2.5)	<.001	.039
Played games or engaged in conversation	19.8	(15.4)	12.5	(12.6)	<.001	<.001
Did outside activities for resident (e.g., shopping)	4.0	(4.7)	4.4	(4.2)	.24	<.001
Monitored resident's finances	2.6	(5.1)	7.6	(10.3)	.007	<.001
Helped out at the setting	1.2	(4.0)	0.5	(2.2)	.16	.27
Discussed care with staff	7.7	(9.6)	4.5	(5.8)	.09	.36
Participated in a service/care plan meeting	0.4	(0.6)	0.2	(0.9)	<.001	.020
Attended a training session at the setting	0.01	(0.1)	0.1	(0.3)	.23	.44
Attended setting-sponsored activity with resident	0.6	(1.2)	0.5	(1.1)	.72	.42
Attended social activity/group intended for families	0.1	(0.3)	0.2	(0.6)	.48	.07

^ap values for models with adjustment for family, staff, resident, and site characteristics for which there was a significant difference between NHs and RC/AL settings. Variables for adjustment were: for family, minority race, relationship to resident, and general health; for staff, age and staff role; for residents, general health, ADLs, IADLs, cognitive status, quality of life, depressive symptoms, and source of payment; for sites, years in operation, size, and proportion of residents receiving state assistance or Medicaid support.

Table 3

Family and Staff Perceptions and Well-Being, by Setting Type

Family Measures	Direction and range of scale	NH (N=135)		RC/AL (N=353)		Unadjusted		Adjusted
		Mean	SD	Mean	SD	p	p ^a	
Family Perceptions of Caregiving Role - conflict with staff	Neg	2.47	(0.62)	2.46	(0.63)	.92		.61
Family Perceptions of Caregiving Role - guilt	Neg	2.29	(0.72)	2.27	(0.68)	.99		.008
Family Perceptions of Caregiving Role - loss	Neg	2.79	(0.84)	2.58	(0.74)	.09		.29
Family Perceptions of Care - management	Pos	3.13	(0.53)	3.22	(0.64)	.47		.76
Family Perceptions of Care - physical care	Pos	3.39	(0.58)	3.57	(0.57)	.09		.58
Family Perceptions of Care - activities for residents	Pos	3.08	(0.73)	3.16	(0.73)	.61		.37
Interpersonal Conflict Scale	Neg	10.16	(3.91)	9.80	(3.59)	.45		.21
Center for Epidemiological Studies Depression Scale	Neg	2.61	(2.28)	2.43	(2.23)	.48		.040
Zarit Burden Interview - social consequences	Neg	2.50	(3.68)	3.49	(3.73)	.029		.11
Zarit Burden Interview - psychological burden	Neg	3.45	(3.59)	5.62	(4.18)	<.001		.08
Zarit Burden Interview - guilt	Neg	4.69	(3.32)	4.95	(2.93)	.49		.11
Lawton Caregiving Appraisal - burden	Neg	17.12	(6.34)	18.87	(6.73)	.05		.035
Lawton Caregiving Appraisal - satisfaction	Pos	20.17	(4.38)	19.11	(3.98)	.13		.34
Lawton Caregiving Appraisal - impact	Neg	4.91	(1.65)	5.58	(1.92)	.006		.09
Staff Measures	Direction and range of scale	NH (N=106)		RC/AL (N=291)		Unadjusted		Adjusted
		Mean	SD	Mean	SD	p	p ^a	
Staff Perceptions of Caregiving Role - burden	Neg	2.21	(0.43)	2.16	(0.49)	.43		.12
Staff Perceptions of Caregiving Role - frustration	Neg	3.54	(0.57)	3.65	(0.53)	.26		.12
Staff Perceptions of Caregiving Role - dominion	Neg	3.10	(0.54)	3.12	(0.53)	.83		.72
Staff Perceptions of Caregiving Role - exclusion	Neg	2.14	(0.36)	2.14	(0.37)	.94		.54
Attitudes Toward Families - disruption	Pos	3.41	(0.58)	3.48	(0.52)	.39		.25
Attitudes Toward Families - family partners	Pos	3.95	(0.45)	3.93	(0.48)	.79		.71
Attitudes Toward Families - family relevance	Pos	2.97	(0.59)	3.04	(0.56)	.41		.72
Family Empathy	Pos	8.35	(2.39)	8.62	(2.34)	.36		.14
Family Behaviors	Pos	14.31	(2.99)	15.27	(3.04)	.008		.28

Family Measures	Direction and range of scale	NH (N=135)		RC/AL (N=353)		Unadjusted	Adjusted
		Mean	SD	Mean	SD	p	p ^a
Interpersonal Conflict Scale	Neg	11.87	(5.18)	11.77	(5.47)	.71	.79
Center for Epidemiological Studies Depression Scale	Neg	2.62	(1.98)	2.38	(1.99)	.31	.51
Work Stressors Inventory	Neg	10.50	(2.95)	10.88	(3.54)	.54	.047
Hassles ^b	Neg	47.35	(9.98)	44.81	(9.55)	.08	.14
Uplifts ^b	Pos	89.77	(8.08)	86.66	(10.67)	.048	.028
Maslach Burnout Inventory - emotional exhaustion	Neg	14.76	(12.28)	13.06	(11.22)	.35	.45
Maslach Burnout Inventory - depersonalization	Neg	2.31	(3.16)	1.89	(2.94)	.30	.92
Maslach Burnout Inventory - personal accomplishment	Pos	39.65	(7.27)	40.19	(7.45)	.56	.53
Feel respected by families as part of healthcare team	Pos	2.63	(0.50)	2.66	(0.48)	.66	.08
Would recommend workplace	Pos	3.38	(0.70)	3.31	(0.77)	.67	.020
How likely will leave job	Neg	1.41	(0.60)	1.63	(0.78)	.040	.62
Absenteeism (average hours missed per month)	Neg	4.9	(3.0)	3.4	(1.5)	.13	.004
Turnover (percent) ^c	Neg	34	(16)	30	(17)	.61	.31

Note: Under "Direction of Scale", "Neg" indicates that higher values represent less favorable scores, and "Pos" indicates that higher values represent more favorable scores. The Family Perceptions of Caregiving Role instrument and Family Perceptions of Care Tool were scored 1–5, which differs from the 1–7 range used by the developers.

^aP values for models with adjustment for family, staff, resident, and site characteristics for which there was a significant difference between NHs and RC/AL settings. Variables for adjustment were: for family, minority race, relationship to resident, and general health; for staff, age and staff role; for residents, general health, ADLs, IADLs, cognitive status, quality of life, depression, and source of payment; for sites, years in operation, size, and proportion of residents receiving state assistance or Medicaid support.

^bThe Hassles and Uplifts scales were scored on a scale of 1 (never experienced) to 5 (tremendous hassle/uplift), and a summary score was calculated.

^cTurnover is the proportion of staff enrolled in the study at baseline who left employment (quit or fired) during the following 12 months.