

# Resident Characteristics Related to the Lack of Morning Care Provision in Long-term Care

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**Purpose:** The purpose of this study was to examine usual long-term care (LTC) practices related to 3 aspects of morning care and determine if there were resident characteristics related to the lack of care. **Design and Methods:** Participants were 169 long-stay residents in 4 community LTC facilities who required staff assistance with either transfer out of bed, dressing, and/or incontinence care and were able to respond to structured interview questions about their morning care preferences. Trained research staff conducted standardized observations during 4 consecutive morning hours once per week per participant for 3 consecutive months during usual LTC conditions and interviewed participants about their morning care preferences using a structured interview protocol once per month during this same time period. **Results:** Overall, 40% of the observations showed a lack of morning care provision, including any staff-resident communication about care, during the 4-hr observation period. Participants rated by staff as more physically dependent and requiring 2 staff for transfer were more likely to not receive morning care. Even when care in a particular area was absent, the majority of participants expressed a stable preference for care to remain the “same” (range of proportions was .75 to .87 for the 3 targeted care areas) and infrequently made requests for care. **Implications:** Efforts to promote

resident-directed care should consider staffing issues related to missed care occurrences and resident issues related to level of dependency on staff as well as reduced expectations for care, which can lead to resident acceptance of low care frequencies.

**Key Words:** Resident-directed care, Long-term care, Quality of care, Assessment, Physical neglect

Care frequencies below those levels necessary to maintain optimal functioning have been documented in long-term care (LTC) for multiple aspects of care. Observational studies have revealed suboptimal care frequencies for incontinence, physical restraint release, repositioning, mobility assistance, out of bed time, and feeding assistance (Bates-Jensen, Schnelle, Alessi, Al-Samarrai, & Levy-Storms, 2004; Schnelle, Simmons, & Ory, 1992; Schnelle et al., 2003; Schnelle et al., 2004; Simmons et al., 2002). Studies show that total staffing, in particular nurse aide, is significantly associated with daily care frequencies and quality measures (Bostick, Rantz, Flesner, & Riggs, 2006; Castle, 2008; Centers for Medicare & Medicaid Services [CMS], 2002; Harrington et al., 2000; Hyer et al., 2011; Schnelle et al., 2004). The relationship between staffing and care frequencies is, at least partially, explained by the amount of time

required to provide many aspects of care. Toileting, repositioning, mobility, and feeding assistance each represent a care activity that is both time-consuming and required multiple times per day for a substantial proportion of LTC residents (CMS, 2002; Schnelle et al., 2003; Simmons et al., 2002). Thus, it is not surprising that higher staffed facilities provide these aspects of care for more residents in need (Bates-Jensen et al., 2004; CMS, 2002; Schnelle et al., 2004).

Beyond staffing level, studies have indicated that some resident characteristics and behaviors also influence staff care practices and may even make the resident more susceptible to mistreatment. These include cognitive impairment, physical dependency, mood, and behavioral disturbance (Bates-Jensen et al., 2004; Gibbs & Mosqueda, 2004; Lindbloom, Brandt, Hough, & Meadows, 2007; Schnelle et al., 1992). One study showed that LTC staff perceptions of resident behavioral disturbance (verbal and physical aggressiveness and unpleasantness during care) were significant predictors of the time residents continuously remained physically restrained (Schnelle et al., 1992). A separate study showed a significant relationship between residents' level of physical dependency, depression and chronic pain, and time spent in bed during the day, although facility staffing level was still the strongest predictor of in-bed time (Bates-Jensen et al., 2004).

Related to lack of care provision, there have been two recent review articles specific to elder mistreatment in the LTC setting (Gibbs & Mosqueda, 2004; Lindbloom et al., 2007). Both review articles defined physical neglect as a form of elder mistreatment wherein there is a "failure to provide assistance or services necessary for optimal functioning or to avoid harm" (Lindbloom et al., 2007, p. 611). Physical neglect and poor care quality were noted as often difficult to distinguish, with both leading to similarly poor clinical outcomes. Inadequate staffing and lack of direct care staff supervision were noted as institutional-level factors associated with neglect and poor care quality (Lindbloom et al., 2007). Resident characteristics that increase a resident's susceptibility to mistreatment include physical dependency, cognitive impairment, depressed mood, behavioral disturbance (e.g., aggressiveness, resistance to care), and care burden (Conner et al., 2011; Gibbs & Mosqueda, 2004; Lindbloom et al., 2007; Post et al., 2010).

Finally, residents' preferences for and responses to care provision also may influence staff care patterns.

For instance, a resident's resistance to care can make it more difficult for staff to provide care. On the other hand, passive resident behaviors may also influence staff care patterns. Studies have shown that LTC residents often express reduced expectations for care or are otherwise hesitant to complain about care quality or mistreatment due to fear of retaliation from staff (Bowers, Fibich, & Jacobson, 2001; Gibbs & Mosqueda, 2004; Grau, Chandler, & Saunders, 1995; Levy-Storms, Schnelle, & Simmons, 2002; Nick, 1992; Simmons & Schnelle, 1999). Related to reduced expectations for care, studies have shown that LTC residents' preferences for incontinence and mobility assistance were lower than the care frequencies necessary to maintain dryness and prevent mobility decline but consistent with their low received care frequencies (Simmons & Ouslander, 2005). Additionally, a separate study showed that residents' preferences for dining location were significantly influenced by the established staff care routine, which again suggests that residents adjust their preferences based on the care they receive (Simmons & Levy-Storms, 2006). These findings give rise to a little explored concern: That the absence of resident complaints or requests for care different from that typically provided may contribute to a potentially erroneous assumption by LTC staff that usual care frequencies are acceptable, even when such care frequencies may be insufficient to maintain optimal functioning and care quality.

To explore this and related issues, the present study examined whether resident characteristics and behaviors influenced morning care provision. In addition to demographic, physical, and cognitive functioning, we considered whether resident preferences for care were associated with care delivery. Separately, we also observed resident responses to care provision in an effort to determine whether these behaviors might reinforce current care patterns or prompt a change in care delivery. Specifically, this study addressed three research questions. The first and third questions were exploratory; the second question was hypothesis driven.

1. What are the usual care practices for three aspects of morning care based on standardized observations of care provision?
2. Are there resident characteristics that are related to staff provision of morning care? Specifically, it was hypothesized that cognitive impairment, physical dependency, and care

- burden, as measured by two-person assist and resistance to care, would be negatively associated with staff provision of morning care.
3. Do residents express a preference for care different from what is provided either in the context of care provision or based on structured resident interviews?

## Methods

### *Subjects and Setting*

This study was conducted as part of a larger study designed to determine the extent to which direct care (nurse aide) staff offered residents choices during morning care provision in preparation for a staff training intervention to improve staff offers of choice during morning care. This study focused on three morning care activities with which many LTC residents require staff assistance: getting out of bed, using the toilet (or changing under garments), and dressing. The rationale for focusing on these aspects of morning care was that these activities typically occur together within a predictable timeframe, so staff care provision is conducive to observation. Second, morning care provides multiple opportunities for staff and residents to interact (Sloane et al., 2007). The data reported in this study were collected at baseline under usual LTC conditions, prior to the implementation of the staff training intervention.

Participants were recruited from four community, for profit LTC facilities housing a total of 612 long-stay residents (average occupancy rate = 95%). Total nursing staff hours per resident per day ranged from 3.23 to 4.38 across the four sites, each of which also housed Medicare residents most of whom were distributed throughout the facility and not confined to a particular unit or floor. Nurse aide staff was not assigned to the same residents each day in any of the four sites; instead, staff-resident assignments changed by shift (day, evening, or night) and day of the week. Nurse aide turnover rates ranged from 20% to 24% across the four sites during the 3 months of baseline data collection. In addition, each facility reported frequent use of temporary nurse aide staff to fill in as needed when routine, scheduled staff were absent.

The most recent CMS quality star ratings were 2 (below average), 3, 4, and 5 (much above average) for the four sites at the time of the study. Quality measures for the sites ranged as follows: 45% to 60% of residents were incontinent, 0% to 12%

of residents spent most of their time in bed or a chair, and 11% to 18% of residents increased their need for assistance with activities of daily living. These ranges were comparable to both state and national averages (Centers for Medicare and Medicaid Services, 2010, 2012).

A total of 430 residents met inclusion criteria for the larger study, which required residents to be long-stay (i.e., not currently receiving Medicare coverage) and able to respond to simple yes/no questions during a brief standardized screening interview implemented by a research geriatric nurse practitioner. The screening interview was used to identify residents who could potentially answer questions about their morning care preferences for the purposes of the larger study; the rationale here was that LTC staff should offer choice minimally to those residents capable of communicating their preferences. Written consent was obtained from the resident or designated proxy for 190 (44%) of eligible residents. The university-affiliated Institutional Review Board approved all study procedures including recruitment, consenting, observations of care occurrence, and feedback to facility staff about care quality as part of the larger study. Four participants were withdrawn from the study due to inability to respond to the preference interview questions. An additional 17 participants were lost from the study due to consent withdrawal (6), discharge (6), and death (5). The remaining 169 participants comprised the study sample.

### *Measures*

Descriptive information was retrieved from participants' medical records along with their most recent Minimum Data Set (MDS version 2.0 or 3.0) assessments (CMS, 2010). An MDS-derived measure of physical functioning was calculated based on seven MDS items, yielding a total score ranging from 0 (*rated by LTC staff as independent in all areas*) to 28 (*rated by staff as completely dependent in all areas*) (Morris, Fries, & Morris, 1991). Each participant's most recent MDS assessment and care plan were reviewed to assess LTC staff documentation of the resident's daily care preferences related to morning care activities, resistance to care, and the need for a two-person physical assist (CMS, 2010). Cognitive status was assessed by trained research staff with the Mini-Mental State Examination (MMSE), with a score range from 0 (*severely cognitively impaired*) to

30 (*cognitively intact*) (Molloy, Alemayehu, & Roberts, 1991). Probable chronic pain was assessed by trained research staff with the modified Geriatric Pain Measure (G-GPM), whereby probable chronic pain is considered to be present if a resident reports experiencing pain every day or that pain interferes with three or more daily activities (Ferrell, Stein, & Beck, 2000; Simmons, Ferrell, & Schnelle, 2002).

### *Neuropsychiatric Inventory-Nursing Home*

Licensed nurses (RNs and LVNs) on the day shift were asked to assess participants with the Neuropsychiatric Inventory for Nursing Home residents (NPI-NH) which includes multiple domains of behavioral disturbance (agitation/aggression), mood, and emotional functioning. Licensed nurse ratings using the NPI-NH have been shown to correlate significantly with standardized research staff observations on the following scales: delusions, hallucinations, agitation/aggression, depression, apathy, euphoria, and irritability (Wood et al., 2000).

### *Resident Preference Interview*

To assess care preferences, a structured interview was conducted once per month with each participant for three consecutive months under usual care conditions. All interviews were conducted in-person by trained research staff in a private area away from facility staff to ensure confidentiality. Residents were asked the following closed-ended question for each care area: "Would you like to get (out of bed, dressed, helped to the toilet/changed) earlier, later, or about the same time as you do now"? Most residents were rated by LTC staff on their most recent MDS assessment as requiring supervision, limited, extensive, or full assistance for transfer (92%), dressing (97%), and/or toileting (96%); observations by research staff confirmed that all participants required staff assistance in one or more of the three targeted morning care areas.

### *Observations of Morning Care Provision*

Research staff observations targeted three morning care activities: transfer out of bed (time to get up), incontinence care (to include toileting assistance, use of a bedpan or urinal, and changing of soiled under garments/bedclothes), and dressing (when to get dressed and what to wear). Trained

research staff conducted continuous observations for 4 hr per participant (per person average = 3.5) during weekdays. The goal was to observe each participant at least once per week for 12 consecutive weeks, varying the observation day each week. The observation period was adjusted at each site (6–10 a.m. or 7–11 a.m.) based on the morning care routine to capture the most care occurrences.

A standardized observational protocol was developed in previous work to reliably observe staff-resident interactions during morning care provision (Schnelle et al., 2009; Simmons et al., 2011). For the purposes of this study, the following discrete categories were coded by research staff: (1) resident performed task independently (without any staff assistance), (2) care provided by LTC staff (type of staff did not matter)—this category included care provision initiated by staff or in response to resident requests for care (e.g., a verbal request or a call light request), and (3) care not provided and no communication between staff and resident related to the targeted care activity. This last category, "care not provided and no communication," was the focus of the regression analysis (see Data Analysis). In this category, no staff member was observed to enter the resident's room at any point during the continuous observation period (6–10 a.m. or 7–11 a.m.) to offer or provide any aspect of the targeted morning care activity. Staff who entered the resident's room or otherwise talked to the resident about other aspects of care that were not the focus of this study (e.g., medication pass, housekeeping, breakfast service) were not counted in the observational data unless the staff member provided or otherwise asked about the resident's need for care in one or more of the targeted areas (i.e., transfer out of bed, dressing, incontinence).

When care was provided by LTC staff, research staff documented the resident's response: (a) assented to the care (e.g., replied "okay"); (b) expressed a preference for something different (e.g., "Get me up later."); (c) complied with the care activity without verbally providing assent or expressing an alternative preference (e.g., followed staff instructions without comment), or (d) behaviorally or otherwise showed resistance to care provision. Research staff recorded all residents' verbal and nonverbal responses verbatim.

Research staff observers ( $n = 5$ ) were trained prior to data collection in LTC facilities using real care situations until interrater reliability was achieved at a kappa level of .80 or higher for each

observation-based coding element. The project coordinator and research geriatric nurse practitioner continued to conduct interrater reliability checks twice per month with each observer to prevent observer drift during the 3 months of data collection. Most relevant to the current study as the primary outcome measure, the kappa value for whether care was provided ranged from .94 to 1.0 ( $n = 140$ ,  $p < .001$ ) across the three care areas.

### Data Analysis

Based on initial exploratory analysis to determine the total number of observations per participant and the distribution of the data across the 12 study weeks, participants who had a minimum of six observations (i.e., remained in the study for at least half of the 12-week observation period) were included in subsequent analyses. For the regression analyses, the outcome was defined as the total number of instances (counts) of “no care or communication observed” over the total number of observations for each participant (Choi, Dominici, Zeger, & Ouyang, 2005). By calculating this summary outcome measure based on correlated binary observations within participant, the relative incidence rate (IRR) could be estimated using a simpler regression modeling approach without relying on the assumption for correlation structure, although overdispersion could still occur. An exploratory analysis showed a high proportion of zero counts (care always provided) for the out of bed and dressing care areas (28% and 21% of the participants, respectively) as well as evidence for overdispersion. For the incontinence care area, there were fewer zero counts (7% of the participants) but strong evidence for overdispersion. Thus, two different types of regression models were used to examine the relationship between resident characteristics (shown in Table 1) and the incidence rate of “no care or communication observed”. Zero-inflated negative binomial regression models were used for the out of bed and dressing care areas, and a negative binomial regression model was used for the incontinence care area to account for the additional variability due to the existence of excess zero counts and/or overdispersion.

Due to a limited sample size, each resident characteristic was tested in a separate analysis after adjusting for the four facility sites and the natural logarithm of the total number of observations. Each hypothesized resident characteristic was examined to determine its association with the probability

Table 1. Characteristics of Participants (N = 169)

Measures	Mean ( $\pm$ SD) <sup>a</sup> or percent ( $n$ )
Age (years)	80.5 ( $\pm$ 13.5)
Percent White	74.0 (125)
Percent female	76.3 (129)
Length of stay (years)	3.4 ( $\pm$ 3.6)
MDS-ADL dependency score (0–28) <sup>b</sup>	17.0 ( $\pm$ 6.2)
MMSE total score (0–30) <sup>c</sup>	15.4 ( $\pm$ 8.4)
Percent probable chronic pain	42.6 (95)
Percent depression diagnosis	81.1 (137)
Percent rated as resisting care at least once in last week <sup>d</sup>	20.5 (34)
Percent rated by staff as two-person physical assist <sup>e</sup>	43.7 (73)
NPI-NH scales <sup>f</sup>	
Percent rated by staff as showing agitation/aggression	45.0 (76)
Percent rated by staff as showing depression	26.0 (44)

Notes: <sup>a</sup>SD = standard deviation.

<sup>b</sup>MDS-ADL dependency score = Minimum Data Set derived Activities of Daily Living score (total score range 0, rated by staff as completely independent, to 28, rated by staff as completely dependent in all of seven ADLs).

<sup>c</sup>MMSE = Mini-Mental State Examination (total score range 0, severely cognitively impaired, to 30, cognitively intact).

<sup>d</sup>Resisting care = MDS behavioral symptoms, proportion rated by staff as 1 (behavior occurred 1–3 days), 2 (behavior occurred 4–6 days), or 3 (behavior occurred daily) in last 7 days.

<sup>e</sup>Two-person physical assist = care plan indication and/or MDS, section G. Physical Functioning, ADL support provided, rating 3 (two + person physical assist) for transfer.

<sup>f</sup>NPI-NH (Neuropsychiatric Inventory-Nursing Home) scales—data shown for only 2 of 11 scales.

of getting a zero count or “care always provided” (logistic part of the regression model) as well as the incidence rate of “no care or communication observed” (Poisson part of the regression model). The resident characteristics included: age, the natural logarithm of length of stay (in years), gender, MMSE total score (0–30), MDS-derived Activities of Daily Living (MDS-ADL) total score (0–28), probable chronic pain (yes/no), depression diagnosis (yes/no), two-person assist (yes/no), and participants’ responses to the interview questions in each care area (whether they wanted care to remain the “same” or expressed a desire for care to occur “earlier or later”). The staff ratings of “resists care” on the MDS and the NPI-NH scales related to behavior (agitation/aggression) and mood (depression, apathy, and irritability) were not included in the regression models following initial exploratory analyses, which

Table 2. Observations of Morning Care

	Out of bed (N = 1,706)	Toileting (N = 1,706)	Dressing (N = 1,706)	Total (N = 5,118)
Resident performed task independently, % (n)	8 (134)	9 (154)	6 (95)	8 (383)
Care provided, % (n)	54 (924)	50 (845)	53 (911)	52 (2,680)
No care or communication observed, % (n)	38 (648)	41 (707)	41 (700)	40 (2,055)

Note: N = total number of observations, % is proportion of total observations in each care area and overall.

showed no relationship between these measures and care occurrence. McNemar's test was used to test the stability of participants' interview responses after adjusting for a matched pair design. All analyses were performed using STATA 11.0 (Stata-Corp, College Station, TX).

## Results

### Subjects and Setting

Participants were predominately female (76%) and White (74%) with an average age of 80.5 years and an average length of residency of 3.4 years (Table 1). They were moderately cognitively impaired as indicated by an average MMSE total score of 15.4. Participants were moderately physically dependent with an average MDS-ADL total score of 17. There was no chart documentation of participants' daily care preferences related to the morning care activities that were the focus of this study. Most notably, there was no documentation that any of the participants were bed-bound or otherwise preferred to remain in bed until late in the morning. A total of 20.5% of participants were rated by staff as resisting care (MDS rating: Behavior occurred at least once in last 7 days), and 43.7% were rated by staff as requiring a two-person physical assist for transfer (MDS and Care Plans). Licensed nurses rated 45% of the participants as showing agitation and/or aggression and 26% showing depression, based on the NPI-NH scale ratings. Eighty-one percent had a physician-recorded diagnosis of depression in their medical record, and 42.6% endorsed symptoms of probable chronic pain based on interview.

### Staff Provision of Care

Table 2 shows the observational data for the group of 169 residents during the three morning care activities across all 12-study weeks. There were a total of 5,118 observations (Table 2, last column). On average, each participant was observed 1.17 ( $\pm 0.16$ ) days per study week, or 3.5 total hours each observation day, for a total of

10.25 observation periods per participant. Each 3.5-hr observation period yielded a total of three data points per person per week (one data point for each care activity), regardless of whether the care activities occurred together because a resident could receive some aspects of care and not others during the same observation period.

Table 2 shows the proportion of observations within each care area as well as for all care areas together. The number of observations differed by care area due to variability in staff care provision. The first row of Table 2 shows the proportion of observations during which research staff observed the participant to perform the task independently (range 6%–9%). Participants who completed the care activity independently were not rated on staff provision of care.

The second row of Table 2 shows the proportion of observations during which care was provided by LTC staff during the observation period. This proportion ranged from 50% to 54% across the three care activities. The proportion of observations during which care was not provided, and no communication between the resident and staff was observed related to each of the three care areas ranged from 38% to 41%. As previously described (see Methods), "no care or communication observed" meant that research staff did not observe the care activity to occur or any interaction between the staff and the resident related to the care area at any point during the continuous 4-hr morning observation period. However, residents could have received other aspects of care (e.g., medication pass, meal delivery) during this timeframe. Indeed, the overwhelming majority of residents (95%) were served breakfast despite not otherwise receiving care in any of the three targeted areas. To ensure the accuracy of these data, the observation period was adjusted (from 6–10 a.m. to 7–11 a.m.), but these adjustments did not result in fewer observations of "no care or communication observed."

The rates of "no care or communication observed" were examined by care area across the four sites to

Table 3. Regression Analysis Results for Episodes of “No Care or Communication Observed”

	Out of bed			Dressing		
	Poisson		Logistic	Poisson		Logistic
	IRR (95% CI)	p value	Log OR (95% CI)	IRR (95% CI)	p value	Log OR (95% CI)
Two-person assist (yes/no)	1.60 (1.26, 2.04)	<.001	-1.87 (-2.87, -.88)	1.54 (1.23, 1.94)	<.001	-1.99 (-3.46, -.52)
MMSE total score	1.00 (.98, 1.01)	.549	.02 (-.04, .07)	1.00 (.98, 1.01)	.841	.032 (-.027, .092)
Length of stay (in years)	1.19 (1.05, 1.35)	.006	.2 (-.20, .64)	1.13 (1.00, 1.28)	.049	.38 (-.14, .89)
Gender	.99 (.72, 1.36)	.932	-.92 (-1.81, -.04)	1.1 (.8, 1.5)	.520	-.7 (-1.6, .3)
Age	1.00 (.99, 1.00)	.391	.02 (-.01, .05)	.996 (.988, 1.004)	.284	.02 (-.02, .05)
Chronic pain (yes/no)	.91 (.71, 1.18)	.499	-.44 (-1.31, .44)	.96 (.76, 1.23)	.766	-.63 (-1.59, .33)
MDS-ADL total score	1.03 (1.01, 1.05)	<.001	-.11 (-.18, -.05)	1.03 (1.01, 1.05)	<.001	-.09 (-.16, -.02)
Depression diagnosis (yes/no)	1.14 (.79, 1.65)	.474	-.68 (-1.66, .30)	1.26 (.92, 1.73)	.152	-.37 (-1.46, .72)
Resident preference	.84 (.61, 1.15)	.272	-.67 (-1.81, .48)	.90 (.65, 1.23)	.503	-.09 (-1.30, 1.12)

Note: IRR = relative incidence rate, OR = odds ratio.

determine if there were site differences, in particular, based on the CMS quality star ratings (see Subjects and Setting). For both transfer out of bed and dressing, the highest rates of “no care or communication observed” occurred in the four-star facility; whereas, for incontinence, the highest rate occurred in the two-star facility. Thus, there was not a consistent pattern of the higher star facilities having lower rates of “no care”. There was month-to-month variability in the rates of “no care or communication observed” across the 3 months of observation: transfer out of bed range =  $.38 \pm .40$ – $.42 \pm .40$ ; incontinence care range =  $.39 \pm .32$ – $.47 \pm .34$ ; and dressing range =  $.39 \pm .39$ – $.46 \pm .40$ . In general, there was a trend downward such that the highest rates of “no care or communication observed” occurred during the first month of observation followed by lower rates in subsequent months, although overall rates (across all three care areas) remained between .39 and .45 in each of the 3 months. The rates also varied among residents such that there were almost no residents who consistently received “no care or communication observed” in all three care areas during each observation period.

#### Resident Responses to Care Provision

Participants were observed to make care requests during 3%–9% of observations, with the most requests for incontinence care. Staff honored participants’ care requests 83%–93% of the time, and these care episodes were counted as “care provided” (Table 2). Participants seldom reacted to care provision with noncompliance or resistance to care (only four episodes across all residents and care observations) and also infrequently expressed a preference for care different from what staff provided (0% for dressing, 3% for incontinence care, and 13% for dressing).

#### Resident Characteristics related to Lack of Care

Table 3 shows the results of the regression analyses to identify resident characteristics associated with “no care or communication observed” (see Data Analysis). None of the resident characteristic measures were predictive of not receiving incontinence care (Results not shown in Table 3). Two-person assist, MDS-ADL dependency, and length of stay were each significantly associated with the IRR of not receiving care for transfer out of bed and dressing (Table 3). Specifically, participants rated by facility staff as requiring a two-person

assist and being more physically dependent (MDS-ADL total score) had a greater likelihood of remaining in bed (Table 3; out of bed: log odds ratios =  $-1.87$ ,  $p < .001$  and  $-.11$ ,  $p = .001$ , respectively) and in their bed clothes (Table 3; dressing: log odds ratios =  $-1.99$ ,  $p = .008$  and  $-.09$ ,  $p = .009$ , respectively) throughout the 4-hr morning observation period. Neither depression nor chronic pain was associated with remaining in bed, and there was no staff documentation in the resident care plans that these participants preferred to remain in bed until midday. A longer length of stay was the only demographic characteristic significantly associated with “no care or communication observed”. Neither cognitive status (MMSE total score) nor residents’ expressed preferences for care via interview were associated with lack of care (Table 3). Repeat observations were conducted on three separate days in the afternoon hours (2–3 p.m.) for all participants in two of the four sites ( $n = 84$ ). The overall proportion of observations during which this subgroup of participants was in bed during the morning observation hours was comparable to the proportion in bed in the afternoon (36% and 26% of total observations, respectively). This finding suggests that these residents either remained in bed through the afternoon or were out of bed for less than 3 hr (11 a.m.–2 p.m.) before returning to bed.

### *Resident Preference Interview*

Of the 169 participants, 95% completed at least one interview, and 93% completed more than one interview. The remaining participants were either unable or unwilling to respond to the interview questions. For the subset of participants who completed two or more interviews, their responses were compared to examine the stability of their self-reported care preferences (see Data Analysis). Results showed no statistically significant difference in participants’ responses between interviews in any of the three care areas (all  $p > .05$  for McNemar’s test). The majority of participants expressed a stable preference for care to remain the “same” in each care area (range of proportions .75–.87). These findings were comparable for the subset of participants with mild to no cognitive impairment (MMSE total score 18 or above,  $n = 65$ ).

### **Discussion**

This observational study examined staff care provision and residents’ preferences for three aspects

of morning care: getting out of bed, dressing, and incontinence care. Results revealed a substantial proportion of observations—40% overall—during which no morning care or staff-resident communication related to morning care was provided by facility staff in one or more of these three areas. There was little evidence in this study that resident care plans or facility staffing levels explained these findings. Worth noting is that the total staffing level reported to CMS for these facilities exceeded the national average for LTC facilities (Harrington et al., 2010), although it also should be noted that these higher staffing levels reflected overall staffing for both Medicare and Medicaid residents together. In addition, LTC staff in the participating sites were aware that research staff were observing morning care routines. A Hawthorne effect is thus possible, but we would expect it to have led to more or better than usual care.

Similarly, there seems little reason to attribute the findings to measurement error. Trained researchers conducted standardized observations, and reliability was high for observations of “no care”. Additionally, the observers were regularly audited to prevent observer drift. When we shifted morning observations to ensure that observers were not missing care episodes, we found no difference in the results. Unfortunately, far from being an anomaly, the “no care” findings are consistent with results from previous studies, including one that showed that many LTC residents spend 18 or more hours per day in bed (Bates-Jensen et al., 2004), and studies in which licensed nurses identified reasons why aspects of care delivery are often missed, which included staff workload, time constraints, and understaffing (Bowers, Luring, & Jacobson, 2001; Kalisch, 2006).

If nursing home characteristics and measurement error are not explanatory, other findings from this study suggest possible reasons for the “no care” results. First, participants rated by LTC staff as more physically dependent and requiring two staff members for assistance were more likely to not receive morning care for transfer out of bed and dressing. Given the amount of time required to provide this care and the need for two staff members to coordinate care, it is not surprising that residents whose care needs placed a higher care burden on staff were those most likely to not receive care—at least until after midday (after 11 a.m.). This finding is consistent with other studies demonstrating a link between physical dependency for ADLs and physical neglect; that is, the more

physically dependent a person is, the higher the risk for staff failure to provide needed assistance and services (Conner et al., 2011; Gibbs & Mosqueda, 2004; Lindbloom et al., 2007; Post et al., 2010). However, in contrast to these previous studies, measures of resident mood (depression) and behavioral disturbance (agitation, aggression, and resistance to care) were not related to lack of morning care provision.

Despite lack of care during the morning hours, few residents in this study expressed a preference for care different from what was provided, either in response to care provision or when asked directly via interviews. Complaints were rare, and compliance with existing routines—even routines involving “no care”—was common, a finding consistent with results from previous studies demonstrating reduced expectations for care and acceptance of established, often suboptimal, staff routines (Simmons & Levy-Storms, 2006; Simmons & Ouslander, 2005). These findings suggest the possibility that staff may simply assume that current care routines are satisfactory to the residents. In the four participating nursing homes, this assumption seems unjustified given inconsistent staff-resident assignment and the reported frequent use of temporary staff, neither of which is conducive to staff knowledge of residents’ daily care preferences. However, even if we assume staff familiarity with residents’ preferences, this knowledge does not preclude the need to regularly elicit preferences that can change daily (e.g., “What do you want to wear today”?) or to simply offer care in a manner that communicates both dignity and respect (e.g., “May I help you to the restroom”?).

Moreover, staff assumptions about residents’ daily care preferences, informed or not, do not clinically or ethically justify long periods of time with no care or communication at all related to necessary aspects of daily care, such as incontinence care and getting out of bed. Expert consensus guidelines recommend that residents needing incontinence care be assisted to the toilet or checked and changed every 2 hr; thus, a 4-hr period of no incontinence care including checking for wetness is clinically unacceptable (U.S. Department of Health and Human Services, 1996) even if other aspects of care are provided. It should be noted here that research staff did not directly check residents for wetness in this study. Consensus guidelines for dressing and getting up from bed do not exist; however, social and physical activity is often recommended for all LTC residents and especially

those with depression (American Medical Directors Association, 1996). Thus, a prolonged daytime period in bed without staff offers for assistance to get out of bed may be clinically contraindicated. From an ethical standpoint, it seems a fallacy to posit that lengthy “no care” periods are in keeping with resident preferences if and when, as found in this study, these preferences are not documented in residents’ care plans, and these periods do not consist of any staff communication to elicit residents’ preferences for care in these areas. In short, although residents certainly have the right to refuse care (e.g., elect to stay in bed until mid-morning), staff should minimally offer care on a consistent basis.

Our results should be considered in light of the study limitations. Observational data were collected for only three aspects of care during morning hours; thus, it is unknown to what extent some of these activities occurred later in the day or if staff routinely elicited residents’ preferences for other aspects of care (e.g., mealtimes, evening bed time, shower schedule, and social activities). In addition, it is important to acknowledge that “no care” in one or more of the three targeted areas did not translate into “no care” at all as most participants (95%) received breakfast service, for example. Finally, this study was conducted in only four LTC facilities in one geographic region with predominately White female residents. However, the results of a separate nationwide study also showed that LTC staff did not consistently provide care or routinely offer residents choices during multiple aspects of daily care provision, including morning care (Schnelle et al., 2009).

In summary, a substantial proportion of LTC residents in this study did not receive three aspects of morning care for a prolonged period of time, and most participants did not complain about the infrequent care occurrence or otherwise make requests for alternative care, even when asked directly via interview. These findings underscore the challenges of ensuring resident-directed care when the care itself is labor intensive for staff, and the care recipients rarely ask for assistance or request changes in how care is provided, even in the context of what could be defined as physical neglect (Lindbloom et al., 2007). Although, the episodes of “no care” described in this study do not constitute purposeful neglect. It is important to acknowledge that NH staff almost always responded to residents’ explicit requests for care, but such requests were infrequent. To complicate matters further, numerous studies have shown that

LTC medical record documentation is inaccurate for many aspects of daily care provision (e.g., incontinence, repositioning, feeding) and reflects a consistent bias in the direction of overestimating care occurrence (Schnelle, Osterweil, & Simmons, 2005). Thus, missed care episodes are likely to go unnoticed by supervisory staff, and therefore be a common occurrence, in many LTC facilities. As part of the larger intervention study, supervisory staff members were taught how to conduct such observations and all staff were given feedback about missed care occurrences (data to be reported in a separate paper).

These data particularly have implications for new efforts in the survey process to interview residents about their care and if their preferences are met. If residents do report high levels of satisfaction or met needs, these data may be more reflective of resident expectations than care quality. Moreover, LTC staff should not assume that the absence of complaints equates to resident satisfaction with existing staff care routines, especially, if those routines involve few staff offers of choice and frequent “no care” occurrences. Meantime, we recommend that nursing homes take reasonable precautions to ensure that residents receive adequate care in keeping with their expressed preferences. Here, we note that more residents may learn to express their preferences or become more engaged so as to make requests for care if they are actively prompted to make choices during daily care routines, as recommended in recent culture change initiatives (Bowers, Nolet, Roberts, & Esmond, 2007; CMS, 2009).

Most importantly, however, we recommend that LTC supervisors conduct routine standardized observations of care delivery to identify missed care occurrences as well as the quality of daily care provision, especially, for residents at higher risk for physical neglect (i.e., physically dependent, two-person assist). A standardized time-efficient observational protocol that allows supervisors to reliably assess staff provision of choice during morning care has recently been published (Simmons et al., 2011). In addition to assessing staff offers of choice, supervisory observations of morning care provide an opportunity to assess whether staff encourage resident independence and if residents exhibit symptoms of pain (Rogers et al., 1999; Sloane et al., 2007). A similar observation protocol also has been recommended to improve the accuracy and consistency of the survey process in identifying care quality issues (Schnelle et al., 2009). Standardized routine observations are recommended as

a first step toward ensuring resident-directed care (CMS, 2009) and, based on the results of this study, informing supervisory staff of missed care occurrences and potential episodes of neglect. Weighed against the consequences of not providing care to a substantial proportion of residents, or providing care in a suboptimal manner, this time will be well spent.

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