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Original article

Leadership tenure is related to aide turnover in US assisted living facilities: Cross-sectional secondary data analysis

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The United States is experiencing a growing demand for residential long term care from a rapidly increasing aging population with greater longevity. Responding to this demand, the number of assisted living facilities (ALFs) is growing and ALFs as a residential care option are gaining in popularity. The acuity of ALF residents is also increasing through a combination of "aging in place" and higher acuity on admission (Kissam, Gifford, Mor and Patry, 2003). This has been occurring alongside a decrease in the number of nursing home beds (Mollica et al., 2012). ALFs are a senior living option that provides housing, meals and daily assistance for those with minimal care needs. Depending on resident care needs, many ALFs offer additional services such as medication management, transportation, nursing services and memory care (SeniorCare, 2016). In conjunction with the popularity of assisted living, the healthcare needs of ALF residents also have increased, often approaching the complexity of care needs found in nursing home residents (Caffrey et al., 2014).

The expansion in ALFs has required increases in ALF direct care staff, especially personal care aides, which are comprised of a mix of Certified Nursing Assistants (CNAs), uncertified direct care aides (DCWs), and medical technicians (Barbarotta, 2010). Recruiting and retaining these aides, who provide 80% of the paid care in ALFs (Senior Care, 2017) will be critical to the delivery of high quality care in the future. However, staff turnover in ALFs has been reported as a long standing problem, with estimates of annual turnover for personal care aides ranging from 15 to 40% (HMP Communications, 2007: NCAL, 2015, PHI, 2014).

The membership association representing ALF interests published a review of factors known to influence turnover along with recommendations to increase retention for its member facilities. Along with pay and human resource improvements it recommends improving ALF management and training as a method of reducing turnover (Barbarotta, 2010). Additional factors associated with greater ALF turnover include higher percentages of Medicaid patients, unattractive neighborhoods and chain ownership (Konetzka, Stearns, Konrad, Magaziner, & Zimmerman, 2005). Other contributors to turnover include poor relationships with resident families and burdensome care requirements (Beeber et al., 2014). High staff turnover in other healthcare sectors has been found to lead to increased staff recruitment costs and increased care burdens on other staff (Sikorska-Simmons, 2005). Likewise, nursing staff turnover has been associated with decreased care quality, such as increased hospitalization and nursing home quality indicator rates (Castle & Anderson, 2011;Thomas, Mor, Tyler, & Hyer, 2013; Bishop et al., 2008; Noelker, Ejaz, Menne, Bagakas, & G., 2009).

The growth of the ALF sector has precipitated a need to examine leadership and workforce factors which potentially affect patient care in these environments. Since leadership in other long term care facilities has been shown to be a key component of job satisfaction and improved quality of care, we identified leadership tenure, defined as years of experience as a facility administrator, as a possible factor that could be related to turnover in ALFs (Wallin, Jakobsson, & Edberg, 2012). The purpose of this study was to examine the association between leadership tenure and aide turnover in ALFs. The conceptual framework informing our work is an expansion of a model of turnover developed by Price (1977) with the addition of the organizational and environmental factors found in nursing homes (Banaszak-Holl & Hines, 1996). Organizational factors include characteristics such as bed size while environmental factors are external such as competition (Castle, Engberg, & Men, 2007). The model was developed to study facility level rather than

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individual turnover (Banaszak-Holl & Hines, 1996). For this analysis, we hypothesized that ALFs with longer leadership tenure would have lower employee turnover.

1. Methods

1.1. Design and data source

A cross-sectional secondary data analysis was employed, using data from the 2010 National Survey of Residential Care Facilities (NSRCF) which contained information about staffing, care services and residents served (Moss, Harris-Kojetin, Sengupta, et al., 2011). In designing the NSRCF, NCHS selected a nationally representative sample of ALFs that were regulated by their state in some manner, using a stratified two-stage (1-facilities, and 2-residents) probability sampling design. The first stage was the selection of facilities, while the second stage dealt with resident selection. For the first stage the primary strata of facilities were defined by bed size (i.e., 4–10 beds, 11–25 beds-26-100 beds and >100 beds) and geographic region (Northeast, Midwest, South and West). Within primary strata, facilities were sorted by the following characteristics: metropolitan statistical area status and state. Systematic random sampling was then used to select facilities. Eligible ALFs were those with four or more adult beds that provided around-the-clock on-site supervision, help with personal care (e.g., bathing and dressing) or services such as medication administration or supervision, and at least two meals per day were eligible. Nursing homes, specialized nursing facilities, and facilities serving the severely mentally ill, mentally retarded or developmentally disabled were excluded from the survey (National Center for Health Statistics, 2011). Data were collected using computer-assisted personal interviews of facility directors or administrators. The weighted survey response rate was 81% (NCHS, 2011). Our analysis included all participating facilities (n = 2302). The University of Maryland, Baltimore Institutional Review Board approved this study protocol.

2. Measures

2.1. Turnover

To estimate ALF aide turnover, the number of full time and part time personal care aides who left the facility during the past 12 months was divided by the total number of full and part time personal care aides employed by the facility in the past seven days. We adapted this format to most closely approximate Castle's technique for calculating turnover in nursing homes, wherein total numbers of staff leaving employment are divided by total staff (Castle, 2006). Then, we divided ALFs into two groups by turnover level: 1 = facilities with high aide turnover (>75th percentile) and 0 = those with lower aide turnover (≤75th percentile). As the NSRCF turnover data combined CNAs and DCWs into one estimate, it was not possible to create separate estimates for each aide type.

2.2. Leadership tenure

This was defined as years of experience in a long-term care (LTC) administrative position. Tenure was measured both for “any” leadership tenure in a LTC facility and for leadership tenure at the “current” facility. Any tenure reflects an administrator's overall experience in leadership positions at any LTC facility, whereas current tenure represents actual experience leading the facility in which the turnover estimate is being evaluated. After examining variable distributions, any tenure was grouped into five categories (<5 years, 5–9 years, 10–14 years, 15–19 years, and ≥20 years). Current tenure was grouped into ≤1 year, 1–4 years, 5–9 years, and ≥10 year categories to allow for comparability with our previous study (Lerner, Johantgen, Trinkoff, Storr, & Han, 2014).

2.3. Facility characteristics

The following facility characteristics were included as covariates: bed size, ownership, years of operation and a resident care needs measure. Facility bed size was divided into three groups by the NSRCF–small: 4–10 beds, medium: 11–25 beds, and large: 26 or more beds. Ownership was dichotomized as for-profit versus not-for-profit, and years of operation into <10 years and ≥10 years. For these items, responses were expressed using categories provided by the NCHS in the public use dataset. We created a resident care need measure to describe the resident population in a ALF using information in the dataset, which could serve as a proxy to estimate work demands. The measure was necessary because there is no standard for ALF care needs like the standards that exist for NHs. These care needs were available in the dataset and were selected to reflect the amount and intensity of potential nursing care required (Han, Trinkoff, Storr, Lerner, & Yang, 2016) We first assessed whether 75% or more of the residents in each facility met each of the following seven conditions: 1) aged 85 years and older, 2) short term memory problems or disoriented all or most of the time in the last 7 days, 3) residents confined to bed or chair due to health problems, 4) requiring assistance in transferring in and out of bed or chair, 5) assistance with eating, 6) medication management, supervision, storage or assistance with medication self-administration, and 7) assistance with using the bathroom. Then we dichotomized the totaled number of conditions into two groups: 0–2 versus 3 or more to distinguish facilities with lower resident care needs versus those which would likely require greater overall staff assistance.

3. Analysis

SAS-callable SUDAAN (version 10.0.1) was used for the analysis, with individual ALFs serving as the unit of analysis. Analyses took the complex sampling design into account and weights were used to produce national estimates. Weights, which are provided with dataset, are required since in the data set one facility represents many facilities. The weights take that representation into consideration. Descriptive statistics (frequencies and proportions weighted to express national estimates) were performed to describe turnover, leadership tenure and facility characteristics. Odds ratios (OR) for the association between aide turnover and tenure were estimated via logistic regression, using those categorized into the longest tenure groups as the reference. One set of models used “current tenure” as the independent variable and another set used “any tenure.” Models were adjusted for facility characteristics by including covariates for facility size, ownership, years of operation, and resident care needs. Interactions between tenure and facility size also were explored.

4. Results

4.1. Characteristics of the national sample of ALFs, turnover, and leadership tenure

Nearly half (40.6%) of all ALFs were quite small with only 4–10 beds, 16% had 11–25 beds and 35% had 26 or more beds (Table 1). Most were for-profit facilities (82.4%) and over half had been in operation for >10 years (56.1%). In terms of resident care needs, most facilities (68%) had relatively low levels of resident care needs, but nearly 30% of ALFs had higher resident care needs.

Overall, the estimated weighted mean of ALF aide turnover was 37% (95% CI of mean turnover = 34–40%). Smaller facilities had a lower proportion with high turnover as compared to larger sized facilities (16.6%, 22.4%, 28.9% for 4–10, 11–25, and ≥26 beds respectively). Approximately half of ALF administrators (55%) had leadership tenure of 10 years or more at any LTC facility, while one-fifth (22%) had <5 years of total experience in LTC. On the other hand, only 29% of administrators had 10 or more years of tenure at their current facility.