Dietary Service Staffing Impact Nutritional Quality in Nursing Homes

BACKGROUND
Undernutrition and dietary problems are widespread in nursing homes (NHs) with rates increasing over time (e.g., Borgstrom Bolmsjo, Jakobsson, Molslad, Ostgren, & Midlov, 2015). Nutritional health has been an important care standard for nearly three decades (Omnibus Budget Reconciliation Act of 1987, 1987) with research demonstrating a link to various negative outcomes (e.g., High, 2001; Mamhidir et al., 2006). Malnutrition is also associated with increased and unnecessary health care costs in NHs (Russel, 2007). NH residents’ nutritional care is dependent largely on institutional policies and practices (e.g., hiring and staffing practices, food availability, compliance with standards) (Bourdel-Marchasson, 2009) and dietary service deficiency citations are among the highest recurrent citations NHs receive during annual inspections (Levinson, 2008). An estimated 46% of NH residents require assistance to eat meals and 12% of those totally dependent on staff to ensure adequate nutritional intake (American Health Care Association, 2015). Proposed rules from the CMS suggest a shift from Dietary Services to more stringent “Food and Nutrition Service” standards (Department of Health and Human Services, 2015). Given the limited research regarding dietary service staffing, this study sought to examine the relationship between the number and type of dietary service staff and dietary service deficiency citations.

STUDY METHOD
The 2007-2011 Online Survey and Certification and Reporting data was used which contains inspection data on all NHs certified to receive reimbursement from Medicare and Medicaid. A total dietary service deficiency score was calculated based upon 13 individual dietary service deficiency citations (F-Tags) and weighted by scope and severity (CMS, 2010). Approximately 49% of the sample had a total dietary service deficiency score >0 and were included in the final analysis. Certified nursing assistants (CNAs) were controlled for in the model given their ability to substitute for indirect (non-nursing) care. An unconditional logit model with random effects was deployed to examine the relationship between staffing levels of dietitians, dietary service staff, and CNAs with the probability of receiving a dietary deficiency citation.

FINDINGS
Results suggest higher staffing levels for dietitians, dietary service staff and CNAs lowers the probability of receiving a dietary related deficiency citation. Dietary deficiency citations involving menu preparation and nutritional adequacy, as well as nutritional value, flavor and appearance were associated primarily with dietitian staffing levels.

POLICY IMPLICATIONS
Findings help substantiate the recommendations set forth in the proposed rules which call for a shift to more comprehensive food and nutrition service standards. The significant relationship among dietitians, dietary service staff, CNAs, and dietary service deficiency citations suggest higher staffing levels have the potential to improve the quality of nutritional care in NHs.

REFERENCES

This policy brief is based on research by K.Smith, H. Meng and K. Hyer of the University of South Florida, School of Aging Studies and Florida Policy Exchange Center on Aging and K.S.Thomas of the U.S. Department of Veterans Affairs Medical Center and Brown University, Providence, RI and S. Johnson of University of Regina, Saskatchewan, Canada. A full draft of this research can be found at: https://doi.org/ezproxy.lib.usf.edu/10.1177/0733464816688309.

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