

Letters

RESEARCH LETTER

Factors Associated With Receipt of Training Among Caregivers of Older Adults

Nearly 18 million family and unpaid caregivers assist older American individuals with disabilities.^{1,2} Caregivers are a crucial source of care for older adults with disabilities and complex care needs but often report feeling unprepared and poorly supported in their caregiving role.¹ Emerging evidence suggests that support of family caregivers, including educa-



Invited Commentary

tion and training, can improve health outcomes for caregivers and care recipients.^{1,3} However, to our knowledge, no previous work has examined whether caregiver characteristics are associated with receipt of training.

Methods | We used data from the 2015 National Health and Aging Trends Study (NHATS), a nationally representative survey of Medicare beneficiaries 65 years and older, and the linked National Survey of Caregivers (NSOC), a companion survey administered to family and unpaid caregivers identified by NHATS participants.⁴ This study includes 1861 family caregivers of 1230 NHATS study participants who were living in traditional

Table. Characteristics of 1230 Community-Living Older Adults With Disability and 1861 Family and Unpaid Caregivers and Associated Adjusted Odds of Caregiver Training^a

Characteristic	Did Not Receive Training, % ^b	Received Training, % ^b	P Value (χ ² Test)	Adjusted Odds Ratio (95% CI)
Caregivers, No. (%), millions ^c	16.6 (92.7)	1.3 (7.3)	NA	NA
Older adult characteristics				
Age, y				
65-74	34.1	43.9		1 [Reference]
75-84	39.2	30.8	.13	0.70 (0.42-1.14)
≥85	26.7	25.3		0.96 (0.54-1.70)
Female	67.1	55.1	.35	0.68 (0.39-1.17)
White race	69.6	55.6	<.001	0.61 (0.39-0.96)
Medicaid enrolled	21.6	35.2	<.001	1.32 (0.74-2.37)
Hospitalized in past year	36.7	55.7	<.001	1.97 (1.27-3.06)
Self-reported health				
Excellent/very good	16.6	10.2		1 [Reference]
Good	33.2	37.8	.01	1.27 (0.53-3.04)
Fair/poor	50.2	52.0		1.01 (0.49-2.08)
Probable dementia	25.1	27.8	.003	0.82 (0.49-1.37)
Caregiver characteristics				
Age, y				
<55	39.4	42.9		1 [Reference]
55-64	21.6	29.5	.07	1.43 (0.74-2.77)
≥65	38.9	27.6		0.65 (0.27-1.58)
Female sex	61.3	62.9	.09	0.85 (0.42-1.70)
Caregiver lives with older adult	48.4	49.7	.85	0.58 (0.28-1.22)
Relationship to older adult				
Adult child	49.5	53.2		1 [Reference]
Spouse	23.4	28.1	.35	2.19 (0.89-5.40)
Other	27.1	18.7		0.89 (0.41-1.92)
Paid for caregiving	2.6	12.2	<.001	4.40 (1.94-9.98)
Composite caregiving burden ^d				
None	41.1	26.2	<.001	1 [Reference]
Some/a lot	59.0	73.8		1.73 (0.93-3.23)
Help with functional tasks ^e				
Household chores only	23.5	13.6		1 [Reference]
Mobility tasks	25.6	11.7	<.001	0.84 (0.30-2.34)
Self-care tasks	50.9	74.7		1.86 (0.75-4.58)
Help with health care tasks ^f	46.5	68.6	<.001	1.64 (0.93-2.89)

^a Source: 2015 National Health and Aging Trends Study and linked National Study of Caregivers.

^b Percentages are weighted to account for complex survey design.

^c Unweighted sample includes 1708 caregivers who do not report training and 153 who report training.

^d Composite burden scale ranges from 0 to 9, based on caregiver reports of financial, emotional, and physical strain, as well as feeling exhausted, feeling they had no time for themselves, or feeling there was more to do than they could manage. Those scoring 2 or higher are categorized as "some/a lot."

^e Household chores include laundry, meal preparation, and cleaning. Mobility tasks include getting around inside or outside the home and transferring. Self-care tasks include eating, bathing, dressing, and toileting.

^f Health care tasks include medication management and medical tasks such as ostomy care, intravenous injections, or blood testing.

community settings and receiving help with daily activities related to self-care, mobility, and household activities for health and function reasons.

Receipt of training was measured as a binary indicator from affirmative responses to the NSOC question, “In the last year, have you received any training to help you take care of [care recipient]?” Multivariable logistic regression was used to assess the association between older adult and caregiver characteristics and receipt of training; we adjusted for a range of older adult, caregiver, and caregiving relationship characteristics that were posited to affect receipt of training. Analyses were performed using Stata, version 14 (StataCorp) and included survey weights and design variables that account for the complex survey design of the NHATS and NSOC. The *P* value level of significance was .05, and all *P* values were 2-sided.

Results | Among the 1861 caregivers included in our sample, 1241 (66.3%) are female and the mean age was 60.2 years; among 1230 older adults included in our sample, 825 (67.1%) are female and the mean age was 81.8 years. Our analysis found that 7.3% of family and unpaid caregivers reported receiving training related to their caregiving role (1.3 million of 17.9 million in a weighted estimate). In the weighted, adjusted regression model, caregivers assisting older adults who had been hospitalized in the prior year were twice as likely to receive training (adjusted odds ratio [aOR], 1.97; 95% CI, 1.27-3.06; *P* = .003) as those assisting older adults who had not been hospitalized. Caregivers who were paid were 4 times more likely to receive training (aOR, 4.40; 95% CI, 1.94-9.98; *P* = .001). Caregivers of white older adults were less likely to receive training (aOR, 0.61; 95% CI, 0.39-0.96; *P* = .03) (Table).

Discussion | We found that 93% of older adults’ family caregivers did not report receiving role-related training. Neither older adults’ health status, caregiver burden, nor assisting with health care tasks were significantly associated with training. This work is subject to several limitations; we cannot provide causal inferences given the use of cross-sectional data. We are unable to comment on the mode, frequency, or quality of training or the extent to which training affects caregiving capacity. Nevertheless, results indicate that few family caregivers receive role-related training and that access to training is not significantly associated with caregiver or older adult needs.

Low levels of caregiver training are a missed opportunity for the health care system. Prior work suggests that training to better prepare family caregivers may improve health and reduce service utilization for those they assist.^{1,3} The emerging model of a learning health system,⁵ together with developing consensus that clinicians and caregivers must be partners in care,⁶ suggests benefits may accrue to integrated health systems that incorporate family caregiver support as part of quality improvement efforts. Clinicians and systems that incorporate the family perspective into treatment discussions and

consider caregiver capacity and needs may be better positioned to deliver higher-quality, more efficient person-centered and family-centered care. The results of this study highlight a gap between older adults’ family caregivers and access to supportive services; addressing this lack of support is an area of opportunity for health systems in stimulating the delivery of high-value care.

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1. National Academies of Sciences, Engineering, and Medicine. *Families Caring for an Aging America*. Washington, DC: The National Academies Press; 2016.

2. Wolff JL, Spillman BC, Freedman VA, Kasper JD. A national profile of family and unpaid caregivers who assist older adults with health care activities. *JAMA Intern Med*. 2016;176(3):372-379. doi:10.1001/jamainternmed.2015.7664

3. Nuckols TK, Keeler E, Morton S, et al. Economic evaluation of quality improvement interventions designed to prevent hospital readmission: a systematic review and meta-analysis. *JAMA Intern Med*. 2017;177(7):975-985. doi:10.1001/jamainternmed.2017.1136

4. Kasper JD, Freedman VA. National Health and Aging Trends Study (NHATS) user guide: rounds 1-7. <http://www.nhats.org>. Published 2018. Accessed November 8, 2018.

5. Montori VM, Hargraves I, McNellis RJ, et al. The care and learn model: a practice and research model for improving health care quality and outcomes. *J Gen Intern Med*. 2019;34(1):154-158. doi:10.1007/s11606-018-4737-7

6. Wolff JL, Feder J, Schulz R. Supporting family caregivers of older Americans. *N Engl J Med*. 2016;375(26):2513-2515. doi:10.1056/NEJMp1612351