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Research Article

The Family Time Squeeze: Perceived Family Time Adequacy Buffers Work Strain in Certified Nursing Assistants With Multiple Caregiving Roles

Nicole DePasquale, MSPH,[1,2,*] Jacqueline Mogle, PhD,[2] Steven H. Zarit, PhD,[3] Cassandra Okechukwu, ScD,[4] Ellen Ernst Kossek, PhD,[5] and David M. Almeida, PhD[3]

[1]Center for Healthy Aging, [2]College of Nursing, and [3]Human Development and Family Studies, The Pennsylvania State University, University Park, Pennsylvania. [4]Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, Massachusetts. [5]Krannert School of Management, Purdue University, West Lafayette, Indiana.

*Address correspondence to Nicole DePasquale, MSPH, Department of Human Development and Family Studies, College of Health and Human Development, The Pennsylvania State University, University Park, PA 16802. E-mail: nzd117@psu.edu

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Abstract

Purpose of the Study: This study examined how certified nursing assistants (CNAs) with unpaid family caregiving roles for children ("double-duty-child caregivers"), older adults ("double-duty-elder caregivers"), and both children and older adults ("triple-duty caregivers") differed from their nonfamily caregiving counterparts ("workplace-only caregivers") on four work strain indicators (emotional exhaustion, job satisfaction, turnover intentions, and work climate for family sacrifices). The moderating effects of perceived family time adequacy were also evaluated.
Design and Methods: Regression analyses were conducted on survey data from 972 CNAs working in U.S.-based nursing homes.
Results: Compared with workplace-only caregivers, double-and-triple-duty caregivers reported more emotional exhaustion and pressure to make family sacrifices for the sake of work. Triple-duty caregivers also reported less job satisfaction. Perceived family time adequacy buffered double-duty-child and triple-duty caregivers' emotional exhaustion and turnover intentions, as well as reversed triple-duty caregivers' negative perceptions of the work climate.
Implications: Perceived family time adequacy constitutes a salient psychological resource for double-duty-child and triple-duty caregivers' family time squeezes. Amid an unprecedented demand for long-term care and severe direct-care workforce shortages, future research on workplace factors that increase double-and-triple-duty caregiving CNAs' perceived family time adequacy is warranted to inform long-term care organizations' development of targeted recruitment, retention, and engagement strategies.

Keywords: Double-duty caregiving, Triple-duty caregiving, Family time pressures, Work–family interface, Nursing homes

The 65 and older population in the United States is projected to nearly double over the next 30 years (He, Goodkind, & Kowal, 2016). Accordingly, their long-term care needs will proliferate (He et al., 2016). The number of certified nursing assistants (CNAs) and other direct-care workers will grow significantly to address these needs, becoming the nation's largest occupational group by 2020 (Paraprofessional Healthcare Institute [PHI], 2013; Stone, 2012). Concurrently, family members will increasingly provide unpaid help, remaining the country's largest source of long-term care (He et al., 2016). A surge in direct-care employment, coupled with ongoing reliance on

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unpaid assistance, will give rise to more adults engaging in paid *and* unpaid care simultaneously (Boumans & Dorant, 2014). In particular, health care employees are likely to serve as family caregivers because they are usually the only "health professional in the family" and relied on heavily by family members to use their expertise for family care (Ward-Griffin, Brown, Vandervoort, McNair, & Dashnay, 2005, p. 384; Wohlgemuth, Auerbach, & Parker, 2015). Yet direct-care workers with family caregiving roles are grossly understudied (DePasquale, Bangerter, Williams, & Almeida, 2016c). In this article, we focus on work strain among family caregiving CNAs in U.S.-based nursing homes as an initial step toward understanding their work–family interface.

The Work Domain

CNAs and other direct-care employees constitute the backbone of the country's formal long-term care system, providing nearly 80% of the hands-on care and emotional support for countless elderly, disabled, and chronically ill Americans (PHI, 2013; Stone, 2012). They also represent one of the nation's largest, fastest-growing workforces (PHI, 2013). Concerns about projected job growth translating to actual job growth, however, have surfaced amid a worsening shortage of CNAs (Stone, 2012). Researchers attribute these shortages to several characteristics of long-term care employment (Stone, 2012). Long-term care employment is stressful, challenging, and linked to physical and emotional strain (Stone, 2012). CNAs are principal caregivers of older adults with chronic conditions and cognitive or functional impairments, balance heavy workloads, and perform physically strenuous tasks (Bureau of Labor Statistics [BLS], 2015). Relatedly, their nonfatal occupational injury and illness rates are disproportionately high (BLS, 2015). CNAs also experience grief following care recipients' deaths; these grief experiences contribute to burnout, a stress-related reaction characterized by emotional exhaustion (Anderson, 2008).

Moreover, CNAs often endure poor working conditions (Stone, 2012). They feel disregarded and treated unfairly, perceive an imbalance between task control and work demands, and cite contradictions between organizational rhetoric and practices or policies concerning respect, appreciation, and value for their work (Bowers, Esmond, & Jacobson, 2003). They also work demanding schedules that hinder work–family balance (Geiger-Brown, Muntaner, Lipscomb, & Trinkoff, 2004). Further, CNAs are a low-wage, hourly workforce with few advancement opportunities and limited employee benefits (Stone, 2012). Approximately 25% of direct-care workers are without health insurance, 48% live below the poverty threshold, and 49% receive public benefits (PHI, 2013). Prior research suggests that food insufficiency and financial strain, both of which are associated with depressive symptoms, are pervasive among these employees (Okechukwu, El Ayadi, Tamers, Sabbath, & Berkman, 2012).

The aforementioned workplace factors have contributed to high turnover rates and job dissatisfaction among CNAs (Bowers et al., 2003; Castle, Engberg, Anderson, & Men, 2007; Karsh, Booske, & Sainfort, 2005; Rosen, Stiehl, Mittal, & Leana, 2011; Stone, 2012; Temple, Dobbs, & Andel, 2009). Such information about these factors is useful for long-term care organizations in that it can inform retention, recruitment, and engagement strategies targeting CNAs. This information may be incomplete, though, without consideration of family domain factors.

Care Transcending the Work–Family Divide

Literature on the convergence of care in the work and family domains uses "double-and-triple-duty caregiving" terminology to distinguish health care employees with caregiving roles beyond the work domain from their nonfamily caregiving counterparts, or "workplace-only caregivers" (DePasquale et al., 2016a, 2016b; Ward-Griffin et al., 2005). "Double-duty caregivers" are health care employees who informally care for children ("double-duty-child caregivers") *or* older adults ("double-duty-elder caregivers") whereas "triple-duty caregivers" are health care employees who informally care for children *and* older adults. Traditionally, formal and family caregiving have been studied separately (Ward-Griffin et al., 2005). Consequently, double-and-triple-duty caregiving research is in its infancy (Ward-Griffin et al., 2015) and largely limited to qualitative data, registered nurses (RNs), and non-U.S.-based health care employees (DePasquale et al., 2016c).

In this study, we focus on work strain indicators—emotional exhaustion, job satisfaction, turnover intentions, and work climate for family sacrifices—with implications for actual turnover and quality of care in long-term care organizations (Castle et al., 2007; Hyer et al., 2011; Rosen et al., 2011). To our knowledge, these indicators have not been studied exclusively among CNAs in U.S.-based nursing homes. Instead, researchers have compared workplace-only caregivers to U.S.-based double-and-triple-duty caregiving men (DePasquale et al., 2016b), Netherlands-based double-duty caregivers (double-duty-child and double-duty-elder caregivers were aggregated) (Boumans & Dorant, 2014; Dorant & Boumans, 2016), and Canadian-based double-duty caregiving RNs (double-duty-child and double-duty-elder caregivers were aggregated) (Stewart et al., 2011). These efforts have produced mixed evidence regarding differences in workplace-only and double-and-triple-duty caregivers' emotional exhaustion (Boumans & Dorant, 2014; DePasquale et al., 2016b; Dorant & Boumans, 2016) and turnover intentions (DePasquale et al., 2016b; Stewart et al., 2011). None of these studies detected job satisfaction differences, nor have they considered differences

in felt expectations to make family sacrifices because of the work climate (Kossek, Colquitt, & Noe, 2001).

Recently, researchers (Boumans & Dorant, 2014) have drawn upon role scarcity and expansion hypotheses, two competing rationales on the consequences of multiple role occupancy within role theory, to elucidate double-and-triple-duty caregivers' work experiences. The role scarcity hypothesis depicts multiple roles as competitors for individuals' finite sum of role resources (e.g., time; Goode, 1960). Accordingly, role demands proliferate and resources dwindle as individuals expand their role sets, producing variants of role strain, or felt difficulty addressing role demands. This hypothesis suggests that, given their multiple caregiving roles, double-and-triple-duty caregivers will experience more work strain than workplace-only caregivers. Conversely, the role expansion hypothesis proposes that multiple role occupancy yields more gratification than strain (Marks, 1977; Sieber, 1974). Role resources are considered abundant or flexible, meaning that some roles can be occupied without resource loss (e.g., resource deficits in one role compensate for such deficits in another role) or even generate resources for use in other roles (e.g., positive attributes of one role enhance experiences in another role). These advantageous features of role multiplicity facilitate role management and integration, thereby leading to more positive (and fewer negative) experiences. Based on this hypothesis, double-and-triple-duty caregivers will experience similar or less work strain compared with workplace-only caregivers.

Based on competing perspectives within role theory, we pose the following question (RQ1): How does work strain differ between workplace-only and double-and-triple-duty caregivers? In addressing RQ1, we extend double-and-triple-duty caregiving literature on work strain to CNAs in U.S.-based nursing homes. Additionally, we provide a more precise test of role theory by comparing health care employees with the same work role in the same industry. That is, heterogeneity in the work environment is held constant, with family caregiving role occupancy constituting the distinguishing factor between workplace-only and double-and-triple-duty caregivers.

Perceived Family Time Adequacy

Resources comprise an important component of role theory. In the role scarcity hypothesis (Goode, 1960), resource diminution creates work strain. In the role expansion hypothesis (Marks, 1977; Sieber, 1974), resource accumulation offsets work strain and/or facilitates positive work experiences. Implicit in role theory is the notion that perceived resources would moderate the relationship between double-and-triple-duty caregiving role occupancy and work strain. The role scarcity and expansion hypotheses, however, translate to direct, not moderated, role occupancy-role strain associations. We address this limitation by examining whether perceived family time adequacy acts as a buffer against work strain in CNAs with double-and-triple-duty caregiving roles.

Perceived family time adequacy refers to the subjective assessment of family time allocation, or the extent to which individuals feel they have enough time to spend with family members (Hill, Tranby, Kelly, & Moen, 2013; Lee et al., 2015). In accordance with prior research, we view perceived family time adequacy as a psychological resource (ten Brummelhuis & Bakker, 2012). To illustrate, individuals with high perceived family time adequacy sense their time allocation is efficient; they are able to actively manage their competing demands with minimal work strain. Conversely, individuals with low perceived family time adequacy experience family time squeezes, or subjective family time pressures like feeling rushed, stressed, or crunched for time (Hill et al., 2013). Family time squeezes reflect perceived or actual resource depletion (e.g., objective time), both of which have the potential to be psychologically harmful and result in stress and strain (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; ten Brummelhuis & Bakker, 2012).

In the double-and-triple-duty caregiving literature, qualitative research has highlighted how double-duty-child caregiving RNs long to obtain unstructured or spontaneous family time (Maher, Lindsay, & Bardoel, 2010). Despite these desires, they report constant temporal tensions between work and family time that necessitate strategic time management, create difficulty in preserving time for family care, and increase their sense of time urgency. Based on interviews with Canadian double-duty-elder caregivers in various health professions, researchers have also concluded that those who feel they have more time for family care are better able to manage their work–family interface (Ward-Griffin et al., 2005). Still, it remains unknown as to whether perceived family time adequacy functions as a psychological resource for work strain experienced by double-and-triple-duty caregiving CNAs. We explore this possibility with our second research question (RQ2): Does work strain differ depending on double-and-triple-duty caregiving CNAs' subjective perceptions of family time adequacy?

Methods

We use data from the Work, Family and Health Study (WFHS), a research initiative by the Work, Family and Health Network (WFHN) to examine long-term care employees' work, family life, and health outcomes (Bray et al., 2013). Study methods were approved by appropriate institutional review boards.

Participants

The WFHN partnered with a long-term health and specialized care company in New England referred to by the alias of *Leef*. *Leef* managed 56 nursing homes, 30 of

which were selected for research participation. Facilities were excluded if they were recently acquired and had fewer than 30 direct-care employees; none declined participation. Within each facility, employees were eligible for participation if they provided direct patient care, worked at least 22.5 hours per week, and did not do regular night work. Of 1,783 eligible employees, 1,524 (85%) enrolled in the WFHS, 1,025 of whom were CNAs. We restricted our final sample to 972 CNAs without missing data on study constructs.

Procedures

Trained field interviewers conducted computer-assisted personal interviews with employees that averaged 60 minutes. Employees answered questions about their work experiences, individual well-being, and family life, for which they received $20. Additional WFHS protocol information is described elsewhere (Bray et al., 2013).

Measures

Predictors

Consistent with prior research (DePasquale et al., 2016a, 2016b, 2016c; Scott, Hwang, & Rogers, 2006), we categorized CNAs into mutually exclusive workplace-only and double-and-triple-duty caregiving groups. Double-duty-child caregivers lived with children aged 18 or younger for at least 4 days per week. Double-duty-elder caregivers provided care (i.e., help with shopping, medical care, or financial/budget planning) for at least 3 hours per week in the past 6 months to an adult relative, regardless of residential proximity. Triple-duty caregivers satisfied each double-duty caregiving criterion whereas workplace-only caregivers did not fulfill either criterion.

Overall, 35% (n = 342) of CNAs were workplace-only; 34% (n = 330), double-duty-child; 17% (n = 160), double-duty-elder; and 14% (n = 140), triple-duty caregivers. Double-duty-child and triple-duty caregivers lived with children aged 6.49 (SD = 5.22) and 7.69 (SD = 5.01), respectively, on average. Although family caregivers' relation to adult care recipients was unspecified, qualitative data from the WFHS suggest that long-term care employees frequently cared for aging parents with poor or declining health (DePasquale et al., 2016a).

Moderator

Perceived family time adequacy was measured with seven items adapted from the larger Family Resource Scale-Revised (Van Horn, Bellis, & Snyder, 2001). Using a 5-point Likert scale (1 = *never*, 5 = *all of the time*), participants rated the extent to which they felt they had spent enough time with their children (e.g., time to take your children to school and medical appointments), partner/spouse (e.g., time to be with your partner/spouse), and/or family (e.g., time to care for other family members' needs) on a regular basis in the past year. Participants only responded to items that were applicable to their respective family configuration. For instance, married, childfree participants skipped questions about time spent with children and instead reflected on time spent with their spouse and family. The mean score was 3.41 (SD = 0.68), with higher scores translating to higher levels of perceived family time adequacy (α = .66).

Work Strain

Emotional exhaustion (M = 4.50, SD = 1.66, α = .86) was measured with the three-item emotional exhaustion subscale from The Maslach Burnout Inventory (Maslach & Jackson, 1986), which assessed feelings of being emotionally overextended by one's work (e.g., feeling emotionally drained from work). Responses ranged from 1 (*never*) to 7 (*every day*), with higher scores reflecting more emotional exhaustion. For the remaining work strain measures, response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores indicating a higher degree of the outcome being examined. Job satisfaction (M = 4.20, SD = 0.66, α = .81) was examined with a three-item subscale from the Michigan Organizational Assessment Questionnaire reflecting global, affective job satisfaction (e.g., generally like this job, Cammann, Fichman, Jenkins, & Klesh, 1983). Turnover intentions (M = 2.11, SD = 1.00, α = .80) were evaluated with a two-item scale reflecting intentions to vacate the work role (e.g., seriously considering quitting company for an alternative employer, Boroff & Lewin, 1997). Work climate for family sacrifices (M = 2.90, SD = 1.09) was examined with one item, "In your workplace, employees are expected to put their families or personal lives second to their jobs" (Kossek et al., 2001).

Covariates

We considered several covariates based on their potential to affect study constructs. We selected age, race, marital status, and child disability (i.e., developmental disabilities or health problems) given their link to double-and-triple-duty caregivers' work–family interface (DePasquale et al., 2016a). Additionally, workplace-only and double-and-triple-duty caregivers' gender, company tenure, and hours worked per week have differed in past studies (Boumans & Dorant, 2014; DePasquale et al., 2016c); we examined these variables to minimize potential confounding effects. We also included educational attainment and annual household income, as these may be related to resource possession.

Statistical Analyses

We first used analysis of variance methods to examine sample characteristics and identify any variables on which workplace-only and double-and-triple-duty caregivers differed for inclusion as covariates in later analyses. Next,

because CNAs were nested within nursing homes, we calculated intraclass correlations to determine whether analytic models should account for between-facility variance. These calculations indicated that variance in work strain measures was almost entirely attributable to between-person differences. Under the reasonable assumption of statistical independence between facilities, we then estimated two separate multiple linear regression models for each outcome. Model 1 included dichotomous indicators for each double-and-triple-duty caregiving role (with workplace-only caregivers as the reference group), perceived family time adequacy, and relevant covariates from bivariate analyses. Model 2 entailed a moderation analysis in which each double-and-triple-duty caregiving role was interacted with perceived family time adequacy and added to Model 1. Significant interaction terms were followed by a simple slopes analysis to enhance understanding of these effects. All analyses were conducted using SAS software version 9.4.

Results

Descriptive Analyses

Table 1 presents the characteristics for the total sample and by double-and-triple-duty caregiving role occupancy. Compared with the workplace-only caregiving group, the double-duty-child and triple-duty caregiving groups were younger, included proportionately more women, and some lived with disabled children. Additionally, the double-duty-child caregiving group had proportionately more partnered CNAs and shorter average company tenure. Therefore, age, gender, child disability, marital status, and company tenure were selected as covariates.

Primary Analyses

Direct Associations

In Model 1 (Table 2), a 1-year increase in age was negatively related to emotional exhaustion and turnover intentions and positively associated with job satisfaction. Additionally, women perceived the work climate as more encouraging of family sacrifices than men, and longer company tenure was linked to greater emotional exhaustion. Turning to the central focus of this study, all double-and-triple-duty caregivers reported higher levels of emotional exhaustion and felt more obligated to make family sacrifices for the sake of work than workplace-only caregivers. Triple-duty caregivers also reported less job satisfaction. Higher levels of perceived family time adequacy were associated with less emotional exhaustion, greater job satisfaction, lower turnover intentions, and less felt obligation to make family sacrifices for the sake of work. With the exception of the job satisfaction model, these main effects for perceived family time adequacy were qualified by significant interactions with double-and-triple-duty caregiving role occupancies in Model 2 (discussed below).

Moderation Analyses

Model 2 (Table 2) addressed RQ2 by examining the moderating effects of perceived family time adequacy. The addition of interaction terms in Model 2 led to a significant increase in the proportion of explained variance for emotional exhaustion, turnover intentions, and work climate for family sacrifices. In these models, perceived family time adequacy interacted significantly with double-duty-child caregiving to predict emotional exhaustion and turnover intentions; perceived family time adequacy also conditioned associations between triple-duty caregiving and

Table 1. Certified Nursing Assistants' Characteristics by Double-and-Triple-Duty Caregiving Role Occupancy

Characteristics, *n* (%)	Total sample *n* = 972 *M* (*SD*) or %	Workplace-only caregivers *n* = 342 (35%) *M* (*SD*) or %	Double-duty-child caregivers *n* = 330 (34%) *M* (*SD*) or %	Double-duty-elder caregivers *n* = 160 (17%) *M* (*SD*) or %	Triple-duty caregivers *n* = 140 (14%) *M* (*SD*) or %	*F* test
Age (in years)	36.72 (12)	39.02 (15)	33.70 (9)***	40.24 (14)	34.19 (8)***	17.54***
Female	0.91	0.87	0.95**	0.91	0.94*	5.55**
White	0.62	0.64	0.62	0.65	0.56	1.01
Some college education or more	0.47	0.50	0.44	0.49	0.44	1.07
Annual household income	8.26 (3)	8.51 (3)	8.00 (3)	8.50 (3)	8.00 (3)	2.36†
Partnered or married	0.59	0.54	0.67**	0.51	0.66†	6.62***
Disabled child	0.10	0.00	0.18***	0.00	0.28***	48.84***
Hours worked per week	36.28 (7)	36.51 (7)	35.85 (7)	36.81 (6)	36.13 (8)	0.91
Company tenure	5.97 (6)	6.83 (7)	5.17 (5)**	6.39 (7)	5.25 (5)†	4.80**

Note: Means (and standard deviations) or proportions are shown. Analysis of variance (ANOVAs) tests with Tukey post hoc comparisons were conducted to identify mean differences across groups with workplace-only caregivers designated as the reference group. Annual household income is a continuous variable with categories that range from *less than $4,999* (1) to *more than $60,000* (13). Income was equivalent to *$35,000–39,999* (8) or neared *$40,000–44,999* (9) across groups.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 2. Multiple Linear Regression Analysis Results

	Emotional exhaustion		Job satisfaction		Turnover intentions		Work climate for family sacrifices	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	4.02 (0.18)***	4.05 (0.18)***	4.19 (0.08)***	4.18 (0.08)***	2.15 (0.12)***	2.16 (0.11)***	2.40 (0.13)***	2.46 (0.12)***
Age	−0.03 (0.01)***	−0.03 (0.01)***	0.01 (0.002)***	0.01 (0.002)***	−0.01 (0.003)**	−0.01 (0.003)**	0.001 (0.003)	0.001 (0.003)
Female	0.27 (0.18)	0.29 (0.18)	0.03 (0.07)	0.02 (0.07)	−0.05 (0.11)	−0.04 (0.11)	0.36 (0.12)**	0.38 (0.12)**
Child disability	0.03 (0.18)	−0.002 (0.18)	0.07 (0.07)	0.08 (0.07)	0.04 (0.11)	0.02 (0.11)	0.14 (0.12)	0.13 (0.12)
Partnered/Married	−0.11 (0.10)	−0.11 (0.10)	0.07 (0.04)	0.07 (0.04)	−0.07 (0.06)	−0.07 (0.06)	−0.11 (0.07)	−0.11 (0.07)
Company tenure	0.03 (0.01)**	0.02 (0.01)**	−0.003 (0.004)	−0.003 (0.004)	−0.01 (0.01)	−0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
DDCC	0.32 (0.13)*	0.32 (0.13)*	−0.09 (0.05)†	−0.09 (0.05)†	−0.01 (0.08)	0.001 (0.08)	0.21 (0.09)*	0.20 (0.09)*
DDEC	0.58 (0.15)**	0.55 (0.15)**	−0.02 (0.06)	−0.02 (0.06)	0.09 (0.09)	0.09 (0.09)	0.25 (0.10)*	0.26 (0.10)*
TDC	0.66 (0.17)***	0.70 (0.17)***	−0.19 (0.07)**	−0.20 (0.07)**	0.18 (0.11)†	0.21 (0.11)†	0.35 (0.11)**	0.40 (0.12)**
Perceived family time adequacy	−0.66 (0.08)***	−0.40 (0.11)**	0.15 (0.03)***	0.10 (0.05)*	−0.20 (0.05)***	−0.11 (0.07)	−0.37 (0.05)***	−0.31 (0.07)***
DDCC × Perceived family time adequacy		−0.57 (0.19)**		0.14 (0.08)†		−0.27 (0.12)*		−0.13 (0.13)
DDEC × Perceived family time adequacy		−0.17 (0.20)		0.01 (0.08)		0.06 (0.13)		0.11 (0.14)
TDC × Perceived family time adequacy		−0.75 (0.25)**		0.17 (0.10)†		−0.36 (0.16)*		−0.45 (0.17)**
R^2	.14	.15	.07	.07	.05	.06	.07	.08
ΔR^{2a}	.083***	.013**	.026***	.005	.023***	.010*	.057***	.009*

Note: DDCC = double-duty-child caregiver; DDEC = double-duty-elder caregiver; TDC = triple-duty caregiver. Unstandardized regression coefficients (and standard errors) are displayed for all models. All continuous variables are mean centered.

[a]The change in R^2 for Model 1 represents the change from a covariates-only model (i.e., age, gender, child disability, marital status, and company tenure) to a model with both covariates and substantive predictors (i.e., double-and-triple-duty caregiving role occupancies and perceived family time adequacy).

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

emotional exhaustion, turnover intentions, and work climate for family sacrifices. Follow-up simple slopes tests indicated that, for every one-unit increase in perceived family time adequacy, double-duty-child and triple-duty caregivers reported less emotional exhaustion (B = –0.98, SE = 0.15, p < .001 and B = –1.16, SE = 0.22, p < .001, respectively) and lower turnover intentions (B = –0.38, SE = 0.10, p < .001 and B = –0.47, SE = 0.14, p = .001, respectively). Triple-duty caregivers also felt less obligated to make family sacrifices for the sake of work (B = –0.76, SE = 0.15, p < .001). We further probed significant interactive effects by computing model-estimated means for each outcome at high (1 SD above the mean) and low (1 SD below the mean) values of perceived family time adequacy. Double-duty-child and triple-duty caregivers had lower emotional exhaustion (M = 3.70, SE = 0.22 and M = 3.96, SE = 0.26, respectively; Figure 1) and turnover intentions (M = 1.90, SE = 0.14 and M = 2.05, SE = 0.16, respectively; Figure 2) scores in the context of high perceived family time adequacy than in the context of low perceived family time adequacy (emotional exhaustion: M = 5.04, SE = 0.24 for double-duty-child caregivers and M = 5.54, SE = 0.29 for triple-duty caregivers; turnover intentions: M = 2.43, SE = 0.15 for double-duty-child caregivers and M = 2.69, SE = 0.18 for triple-duty caregivers). Triple-duty caregivers also had lower (M = 2.34, SE = 0.18) and higher (M = 3.38, SE = 0.20) work climate for family sacrifices scores in high and low perceived family time adequacy contexts, respectively (Figure 3).

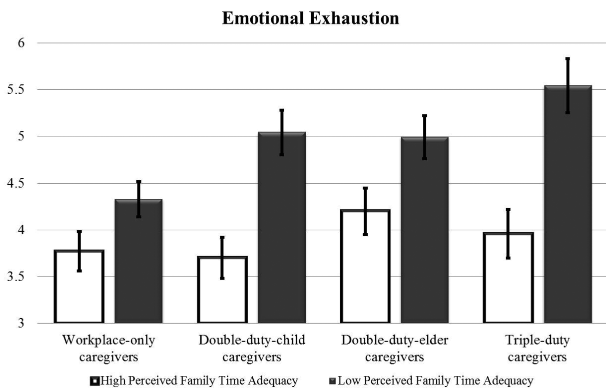

Figure 1. Model-estimated means for the conditional effects of double-and-triple-duty caregiving role occupancy on emotional exhaustion at 1 *SD* above (high perceived family time adequacy) and below (low perceived family time adequacy) the mean of perceived family time adequacy are displayed. Higher scores reflect more emotional exhaustion.

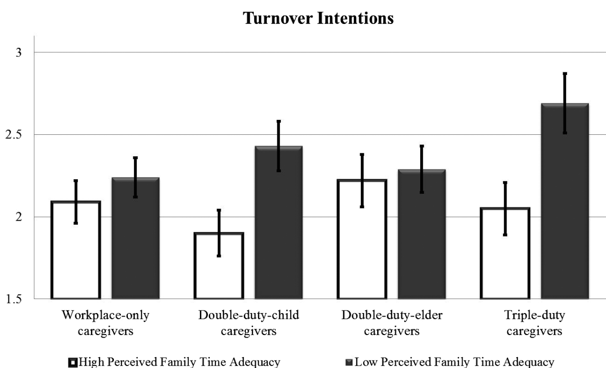

Figure 2. Model-estimated means for the conditional effects of double-and-triple-duty caregiving role occupancy on turnover intentions at 1 *SD* above (high perceived family time adequacy) and below (low perceived family time adequacy) the mean of perceived family time adequacy are displayed. Higher scores reflect greater turnover intentions.

Discussion

The objectives of this study were twofold. First, we compared workplace-only and double-and-triple-duty caregivers' work strain. Drawing on a sample of 972 CNAs in U.S.-based nursing homes, we found that the role scarcity hypothesis (Goode, 1960) was generally more applicable to triple-duty caregivers than the role expansion hypothesis (Marks, 1977; Sieber, 1974). Triple-duty caregivers reported more emotional exhaustion, less job satisfaction, and greater felt obligation to make family sacrifices for the sake of work relative to workplace-only caregivers. Conversely, neither hypothesis was more applicable for double-duty caregivers. Compared with workplace-only caregivers, double-duty caregivers reported more emotional exhaustion and obligation to make family sacrifices for the sake of work (consistent with the role scarcity hypothesis), but did not differ with respect to job satisfaction and turnover intentions (consistent with the role expansion hypothesis). Some of our findings were also dissimilar to those from prior research—for example, researchers had not detected lower job satisfaction among triple-duty caregivers (DePasquale et al., 2016b). Previous investigations, though, have focused on different types of double-and-triple-duty caregivers in varying work settings. These findings

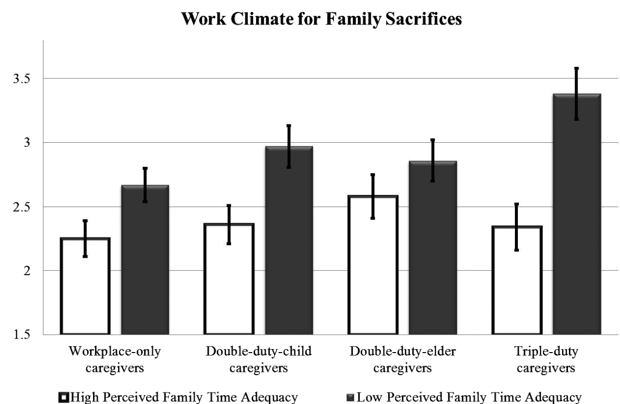

Figure 3. Model-estimated means for the conditional effects of double-and-triple-duty caregiving role occupancy on work climate for family sacrifices at 1 *SD* above (high perceived family time adequacy) and below (low perceived family time adequacy) the mean of perceived family time adequacy are displayed. Higher scores reflect a work climate in which employees feel more obligated to make family sacrifices for the sake of work.

thus suggest that such work strain indicators operate differently for double-and-triple-duty caregiving CNAs in U.S.-based nursing homes, and lend support to the notion that not all double-and-triple-duty caregivers are the same (Ward-Griffin et al., 2005).

Second, we expanded on past research by examining whether perceived family time adequacy functioned as a moderator of associations between double-and-triple-duty caregiving occupancy and work strain. The results showed that greater perceived family time adequacy attenuated double-duty-child and triple-duty caregivers' emotional exhaustion and turnover intentions as well as reversed triple-duty caregivers' perceptions regarding the work climate for family sacrifices. Subsequent model-estimated means revealed that high and low family time adequacy buffered and exacerbated these work strain indicators, respectively. This evidence suggests that double-duty-child and triple-duty caregiving CNAs' work strain differs depending on the perceived inadequacy or adequacy of family time. It also implies that perceived family time adequacy constitutes a salient psychological resource for these particular caregivers and they are motivated to obtain, retain, and protect family time (Hobfoll, 1989).

Limitations and Future Research Directions

This study has some limitations. First, although this study covered new ground, analyses were cross-sectional. Researchers should use longitudinal designs to study the long-term dynamics of the associations examined here. Second, nonprobability sampling of nursing homes limits generalizability of study findings. A representative sample of U.S.-based CNAs would be particularly informative as double-and-triple-duty caregiving studies typically focus on health care employees in other countries that might vary with respect to work–family balance norms. Third, we conducted a secondary analysis of existing data not specifically designed to study family caregiving. We therefore lacked family caregiving intensity measures and constructed family caregiving role occupancy measures using available child cohabitation, child age, and elder care information in accordance with prior studies (DePasquale et al., 2016a, 2016b; Scott et al., 2006). Still, this role occupancy approach was advantageous relative to family caregiving measures in past double-and-triple-duty caregiving research (Boumans & Dorant, 2014; Stewart et al., 2011; Ward-Griffin et al., 2005, 2015; Wohlgemuth et al., 2015) because it differentiated family care recipients; enabled consideration of triple-duty caregivers; and included a criterion for weekly hours of elder care. Nevertheless, researchers should build on this study by using more nuanced measures that account for care hours; caregiving duration; number, type, and intensity of caregiving demands or activities; and adult care recipients' age, health status, behavior problems, and relation to double-and-triple-duty caregivers, for instance, as these may yield other insights. Fourth, the overall variance explained by our regression models was relatively low across work strain indicators. Unmeasured constructs, such as the previously suggested family caregiving measures, may explain more variance than models that only include family caregiving role occupancy predictors.

In light of these limitations, it will be important to see whether other researchers who replicate our study arrive at similar conclusions. Replication is critical if we are to advance understanding of why perceived family time adequacy did not emerge as a psychological resource for double-duty-elder caregivers. Currently, it is unclear if their resource needs differ from those of double-duty-child and triple-duty caregivers or if such results can be attributed to the aforementioned measurement limitations, for example. Moreover, not all work strain indicators were conditioned by perceived family time adequacy for double-duty-child and triple-duty caregivers. Accordingly, further evidence is needed to determine if perceived family time adequacy is more pertinent for certain work strain indicators (e.g., turnover intentions). Aside from replication, this study also points to future research directions. One such direction is to examine the moderating effects of other psychological (e.g., mental resilience) resources as well as work (e.g., task control) and family (e.g., partner support) resources on work strain. An additional possibility is the concurrent use of subjective and objective family time measures to assess which is more strongly related to work strain. Another promising avenue entails qualitative investigations in which double-and-triple-duty caregiving CNAs identify workplace factors that exacerbate family time squeezes and facilitate perceived family time adequacy. Evidence yielded from such investigations may inform the development of targeted work-life strategies, scheduling practices, and family-friendly policies in the long-term care industry.

Implications for Long-Term Care Organizations

Our findings suggest that providing family-friendly workplace supports may constitute an opportunity for long-term care organizations to attract, retain, and engage employees. For instance, double-duty-child and triple-duty caregiving CNAs' lower turnover intentions in the context of greater family time adequacy indicate that workplace initiatives or resources alleviating family time squeezes may yield a positive return-on-investment. Given that turnover intentions are indicative of actual turnover (e.g., Rosen et al., 2011), long-term care organizations may experience more workforce stability and continuity of care, decreased turnover-related costs, and improved well-being among residents and employees by enhancing double-duty-child and triple-duty caregivers' perceived family time adequacy.

One workplace resource that may boost perceived family time adequacy is schedule control or flexibility. Hill and colleagues (2013) recently highlighted how a white-collar organization's initiative to integrate flexibility within the organizational culture increased perceived family time adequacy. Mothers experienced more schedule control

following the initiative and, subsequently, greater perceived family time adequacy. However, neither mothers' nor fathers' actual family time allocation changed. The authors thus concluded that perceived family time adequacy, rather than family time allocation, was more malleable through flexibility. Obviously, long-term care and white-collar industries differ in the resources they can feasibly offer to employees. Nonetheless, the amenability of perceived family time adequacy to flexibility may bode well for the long-term care industry. Initiatives such as a shift swapping system, for example, may not increase family time allocation but might enhance perceived family time adequacy. Enhanced perceived family time adequacy, in turn, could catalyze resource gains in double-and-triple-duty caregiving CNAs. Relatedly, because CNAs often desire to have more control in the workplace, flexibility initiatives may be a particularly effective retention strategy. Further, although greater schedule control did not affect fathers' family time adequacy in the Hill and colleagues' study, a family-supportive company culture was positively related to their perceived family time adequacy. This finding underscores the notion that in order to have a broader impact on employees' work–family interface, support must be demonstrated for employees' families or personal lives at all levels within an organization (Hammer & Neal, 2008). An unsupportive organizational work–family climate will likely undermine the utilization of work resources intended to increase family time adequacy and the uptake of family-supportive initiatives in general.

Conclusion

We found that double-and-triple-duty caregiving CNAs report more work strain than their workplace-only caregiving counterparts. We also identified perceived family time adequacy as a salient psychological resource that buffered double-duty-child and triple-duty caregivers' emotional exhaustion and turnover intentions as well as reversed triple-duty caregivers' negative perceptions of the work climate for family sacrifices. Amid direct-care workforce shortages and an unprecedented demand for long-term care services, additional research about double-and-triple-duty caregiving CNAs' work–family interface is urgently needed to inform the long-term care industry's recruitment, retention, and engagement strategies.

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