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Research Article

The Burden and Benefits of Caregiving: A Latent Class Analysis

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Abstract

Background and Objectives: Informal caregiving to older adults is a key part of the U.S. long-term care system. Caregivers' experiences consist of burden and benefits, but traditional analytic approaches typically consider dimensions independently, or cannot account for burden and benefit levels and combinations that co-occur. This study explores how benefits and burden simultaneously shape experiences of caregiving to older adults, and factors associated with experience types.

Research Design and Methods: 2015 National Health and Aging Trends Study (NHATS) and National Study of Caregiving (NSOC) data were linked to obtain reports from caregivers and recipients. Latent class and regression analysis were conducted on a nationally representative sample of U.S. informal caregivers to older persons.

Results: Five distinguishable caregiving experiences types and their population prevalence were identified. Subjective burden and benefits level and combination uniquely characterize each group. Primary stressors (recipient depression, medical diagnoses), primary appraisal (activities of daily living, instrumental activities of daily living, medical task assistance, hours caregiving), and background/contextual factors (caregiver age, race, relationship to recipient, mental health, coresidence, long-term caregiving) are associated with experience types.

Discussion and Implications: Findings highlight caregivers' experience multiplicity and ambivalence, and identify groups that may benefit most from support services. In cases where it is not possible to reduce burden, assistance programs may focus on increasing the benefits perceptions.

Keywords: Analysis—Regression models, Caregiver stress, Caregiving—Informal, Depression, Family issues, Health, Interpersonal relations (other than family relations), Quantitative research methods, Sociology of aging/social Gerontology, Statistics

Older adults' informal caregivers frequently experience burden, also conceptualized as strain, stress, and costs (Hunt, 2003). Caregiver burden encompasses physical, psychological, emotional, relational, social, and financial problems due to caregiving. Conversely, many caregivers also report experiencing benefits from their role, variously conceptualized as satisfaction, gains, rewards, or uplifts (Kramer, 1997). Caregiving can therefore be rewarding and distressing, generating both feelings of benefit and burden for some caregivers. Theoretical efforts like the two-factor caregiving appraisal model unite both facets, suggesting

they are not mutually exclusive (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991). Instead, they represent separate dimensions of caregiving experiences.

Understanding how negative and positive caregiving perceptions co-occur is theoretically, practically, and methodologically relevant. Investigating both appraisals simultaneously shows whether and in what pattern (only burden or benefits, burden alongside benefits, their particular types) they stem from caregivers' appraisal of the same situation (Lawton et al., 1991). For example, caregivers may perceive emotional or cognitive benefits from caregiving—feeling

accomplished, developing skills—while simultaneously experiencing interpersonal burden if recipients suffer from dementia. Identifying contextual factors associated with burdensome versus beneficial experiences may inform policies and interventions improving caregiver satisfaction. Caregivers perceiving benefits have better mental and physical health, and continue performing their role longer than those feeling burdened (Cohen, Colantonio, & Vernich, 2002). To better understand heterogeneity in informal caregiving to older adults and improve caregiving experiences, it is therefore important to examine how burden and benefits coexist.

Despite theoretical efforts, given past focus on burden, subjective burden and benefits are seldom considered simultaneously in empirical studies (Walker, Pratt, & Eddy, 1995). Some studies examine hassle and uplift interactions, or negative and positive caregiving health effects (Beach, Schulz, Yee, & Jackson, 2000). However, when researchers examine burden alongside benefits, traditional analytic approaches preclude exploring nuances in co-occurrence. Using factor analysis to identify separate experience dimensions, or composing single indices, masks benefit and burden multidimensionality. It does not consider their domains or relative intensity that caregivers may simultaneously experience (Cohen et al., 2002). Examining experiences using standard regression analyses yields inconclusive findings. Some suggest greater burden is associated with fewer perceived benefits; others report greater burden accompanies greater benefits (Lawton et al., 1991; Riedel, Fredman, & Landenberg, 1998). The two aspects also have different predictors and are weakly or modestly correlated (Braithwaite, 1996). Mixed findings may be due to traditional techniques being poorly suited for examining both appraisals simultaneously-they cannot adequately account for burden and benefit levels and combinations that caregivers experience.

This study aims to better understand heterogeneous experiences in informal caregiving to older persons and extends prior research in three ways. First, it links 2015 National Health and Aging Trends Study (NHATS) and National Study of Caregiving (NSOC) data to obtain measures from both caregivers and recipients. Prior research frequently relies on single-reporter measures that may introduce bias due to one informant's underlying affect; linked data incorporate two self-reports, better capturing how caregiver-reported experiences are associated with recipient-reported health stressors typically collected through caregivers. Second, rather than relying on a select sample, this study uses a nationally representative sample of older adults' informal caregivers, providing a generalizable portrayal of caregiving experiences and information on population prevalence of experience types. Finally, instead of examining burden and benefits in isolation, this study uses latent class analysis (LCA) to consider simultaneously the presence or absence, level, and burden and benefit domains. Uncovering underlying groupings in this way on

a representative sample provides a comprehensive understanding of informal caregiving experiences. Relatedly, this study has two goals: (a) To identify distinguishable caregiving experience subtypes, understand how burden and benefit perceptions uniquely characterize each group, and estimate their population prevalence; (b) To identify theoretically and practically relevant factors associated with experience subtypes, examining how background/contextual factors account for associations between caregiving stressors, their appraisal, and caregiving experiences.

Theoretical Framework

A modified stress appraisal model guides the present examination of subjective burden and benefits among older adults' caregivers (Verbakel, Metzelthin, & Kempen, 2016). The stress appraisal framework combines stress process and two-factor appraisal models, suggesting primary stressors, primary appraisal, and background/contextual factors shape secondary appraisal. Secondary appraisal, or subjective caregiving experience, is commonly operationalized as burden. However, subjective experiences can be negative or positive (Lawton et al., 1991). Extending previous research, this study conceptualizes secondary appraisal as both negative and positive to acknowledge duality. Thus, negative and positive secondary appraisal—burden and benefits, respectively—represent separate dimensions of caregiving perceptions.

Caregiving burden refers to caregiving consequences that "result in observable and perceived costs to the caregiver" (Hunt, 2003: 28). These occur across several domains: emotional, with caregivers reporting worry, uncertainty, and overwhelming tasks (Sanders, 2005); social, with demands interfering with family and work obligations (Lawton et al., 1991); interpersonal, with upsetting recipient behavior resulting in strained relationships (Montgomery, Stull, & Borgatta, 1985); physical, with caregivers experiencing disturbed sleep and exhaustion (Kruithof, Post, & Visser-Meily, 2015); and financial, as caregivers often purchase assistive devices or lose income due to unemployment (Pinquart & Sorensen, 2003). Burden is therefore multi-dimensional, reflecting negative caregiving appraisals and perceived negative consequences.

Conversely, caregiving benefits stem from positive appraisals and refer to any "positive affective or practical return" from caregiving (Kramer, 1997: 219). Benefits are multidimensional: interpersonal, with caregivers and recipients developing close relationships, feeling companionship, and feeling appreciated (Andren & Elmstahl, 2005); emotional, with caregivers being pleased their loved one is cared for, feeling accomplishment, fulfillment, and personal growth (Quinn, Clare, McGuinness, & Woods, 2012); and behavioral/cognitive, with caregivers developing skills, competencies, and abilities (Carbonneau, Caron, & Desrosiers, 2010). Benefits are therefore multidimensional, reflecting positive appraisals and perceived positive consequences.

Primary stressors, primary appraisal, and background/contextual factors shape subjective burden and benefit experiences (Verbakel et al., 2016). Primary stressors refer to factors engendering caregiving need: recipient mental (depression and anxiety symptoms), physical (diagnosed conditions), and subjective (self-rated) health. Caregivers assisting recipients with poor mental health may provide different care than those assisting the physically impaired. The former may engender high emotional burden, and the latter physical burden. They may also shape benefit perceptions differently.

Primary appraisal refers to care given in response to primary stressors, such as care hours and type (basic activities of daily living [ADL], instrumental ADL [IADL], medical task assistance). Primary appraisal may partly explain the primary stressors and caregiving experiences association. Both primary stressors and appraisal are linked to background/contextual factors. These include structural inequality indicators associated with resource distribution, shaping stress exposure and responses (Pearlin, Mullan, Semple, & Skaff, 1990). Background/contextual factors may account for relationships between primary stressors, primary appraisal, and experiences, and may themselves shape appraisals. Key background/contextual factors are distinguished from others to emphasize caregivers' own characteristics and structural variables.

Key Background/Contextual Factors (Caregiver Sociodemographics)

Caregiver Race and SES

Caregiver race and SES are distinct but related constructs associated with recipient health and caregivers' assistance use. Race is inextricably linked with SES, resource access, and health outcomes (Reskin, 2012). Some research shows that minority caregivers have better social support and cohesion, and thus more beneficial experiences than white caregivers (Janevic & Connell, 2001). However, racial/ethnic minority and low SES individuals experience poor health earlier in life than white or high SES counterparts, and minority and low SES caregivers are likely providing long-term and intensive care (Pinquart & Sorensen, 2005). They are less likely to use nursing homes and home care to mitigate demands (Angel, Rote, Brown, Angel, & Markides, 2014). Race and SES may thus shape experiences similarly, with racial/ethnic minority and low SES caregivers appraising caregiving negatively and perceiving fewer benefits than others.

Caregiver Gender

Women are often primary caregivers, performing multiple tasks, offering intensive assistance, and reporting poor health due to caregiving (Pinquart & Sorensen, 2006). Women may accept caregiving as their duty (Neufeld & Harrison, 1998). However, men may use more problem-focused coping behaviors, and use and receive more or different types of support—for example, more instrumental

rather than emotional assistance—than women (Coe & Neufeld, 1999). Thus, men may perceive caregiving more positively.

Caregiver Age

At different ages, caregivers may balance other demands with caregiving. Middle-aged caregivers are likely recipients' adult children, frequently called upon to assist (Penning, 1990). They may be employed and have obligations toward own families (Longacre, Valdmanis, Handorf, & Fang, 2016). Older adult caregivers—likely recipients' spouses—may have poor health, requiring assistance themselves. With increasing age, caregivers may therefore encounter more stressors, provide more assistance, and appraise caregiving negatively.

Caregiver Mental Health

Caregivers are more likely than noncaregivers to develop depression and anxiety (Cooper, Balamurali, & Livingston, 2007; Pinquart & Sorensen, 2003). Comparing caregivers and noncaregivers who do not initially differ in mental health suggests more caregivers than noncaregivers develop depression and anxiety (Dura, Stukenberg, & Kiecolt-Glaser, 1990, 1991). Caregivers in poor mental health may over-rely on negative information, and depression and anxiety are associated with reporting burden (Richters, 1992). Thus, caregivers in poor mental health may appraise caregiving negatively.

Other Background/Contextual Factors (care arrangement, recipient sociodemographics)

Caregivers' relationship to recipient correlates with age and may indicate task type/intensity, shaping role expectations, and appraisals (Wolff & Kasper, 2006). Coresident caregivers may provide different care from those outside recipients' households, and are more likely than others to report negative outcomes like isolation and poor health (Schulze & Rossler, 2005). Secondary caregivers may share responsibilities and alleviate stress for primary caregivers, or engender interpersonal tensions in coordinating care (Barbosa et al., 2011). Role duration may shape caregivers' responses to primary stressors, with new caregivers adjusting to caregiving or appraising it more negatively over time as recipients' health declines (Gitlin & Schultz, 2012). Additionally, caregivers and recipients may have similar sociodemographic characteristics, and recipient factors may partly explain associations between other factors and experiences.

Data and Method

Data

The 2015 US NSOC and NHATS were used to examine how burden and benefits characterize informal caregiving

to older adults. NHATS is a nationally representative survey designed to monitor aging changes and social implications. It collects information on a stratified three-stage sample of Medicare recipients over age 65 living in residential care or communities; 96% of U.S. older adults are Medicare enrollees. NHATS oversamples black older adults and those aged over 85. The baseline response rate was 71%. The study links NHATS with 2015 NSOC, a nationally representative NHATS study of individuals from whom NHATS sample persons received help with self-care, mobility, or household activities; each NSOC caregiver was matched with a NHATS sample person to obtain recipient demographics and health reports. NSOC collects data about the role of older adults' caregivers. The 2015 response rate was 67.2%.

Sample

The analytic sample includes the full NSOC sample of 2,202 U.S. older adults' informal caregivers. NSOC analytic weights account for differential selection probabilities and nonresponse bias, making the sample nationally representative. Cases missing data on latent class measurement items were retained after performing sensitivity analyses to ensure the final class solution remains robust. Multiple imputation was employed for cases missing covariate data (see analytic plan). Table 1 shows weighted sample descriptive statistics.

Measures

Latent Variable: Perceived Caregiving Experience

Caregiver-reported burden and benefits indicators from NSOC were used to construct the caregiving experiences latent class measurement model. Fifteen items measure perceived burden in emotional, interpersonal, social, physical, and financial domains. Six items measure perceived benefits in emotional, interpersonal, and behavioral/cognitive domains. Measures are dummy-coded to agreement (=1) and disagreement. Four items (interpersonal burden/benefits) are not originally dichotomous; "a lot" and "some" were collapsed to agreement (=1), and "not at all" and "a little" to disagreement. Table 2 shows burden and benefits items with weighted caregiver endorsement sample percentages.

Independent Variables

Primary Stressors (recipient-reported)

Recipient health indicates the recipient's self-reported health, ranging from poor (0) to excellent (4). Recipient depression and anxiety symptoms are separate continuous symptomatology measures (r = 0.43), constructed using validated two-item screeners reflecting DSM-V diagnostic criteria (Lowe et al., 2010). Scores range from 0 to 6; higher scores indicate greater risk for each condition. Recipient

medical diagnoses indicates the recipient has 0–2 diagnoses, or 3+ physician-diagnosed conditions (=1) among heart attack, heart disease, high blood pressure, arthritis, osteoporosis, diabetes, lung disease, stroke, dementia or Alzheimer's, cancer, or broken/fractured hip or other bones.

Primary Appraisal (caregiver-reported)

Hours spent caregiving indicates the caregiver spent fewer than 20 hr (reference), 21-63 hr, or 64+ hours providing care to recipient in past month; cutoff points are response distribution terciles. ADL and IADL help frequency indicate how often the caregiver assists recipient with each. ADL help frequency is a two-item mean ($\alpha = 0.77$) of how frequently caregivers help with "personal care like eating, showering or bathing, dressing or grooming, or using the toilet," and how often they help the recipient "getting around, that is, getting in and out of bed, getting around inside their home, or leaving their home to go outside." IADL help frequency is a four-item mean ($\alpha = 0.66$) of how frequently caregivers help with "laundry, cleaning, or making hot meals," "shopping for groceries or personal items," "driving places," and how often they go with the recipient "in a van, shuttle or cab, or take public transportation with them." For both, scores range from "never" (0) to "every day" (4); higher scores reflect more frequent assistance with ADL or IADL. Number of medical tasks indicates how many medical tasks the caregiver performs for the recipient, counting six items ($\alpha = 0.76$) asking the caregiver whether they "order prescribed medicines;" "track medications;" "make medical appointments;" "speak to or email medical provider about care;" "change or add health insurance or prescription drug plan;" or "handle other health insurance matters related to care." Original response categories were "yes" (=1) and "no." Scores range from 0 to 6; higher scores reflect assistance with more medical tasks.

Key Background/Contextual Factors (caregiver-reported)

Caregiver race indicates caregiver is non-Hispanic white (reference), non-Hispanic Black, Hispanic, or other; education indicates caregiver's highest education level as less than high school (reference), high school/equivalent, some college/technical school, or college degree and above; employment status indicates caregiver's employment (reference), unemployment, or retired status; gender indicates the caregiver is female (=1) or male; age indicates caregiver's age as young (aged 18-39), middle-aged (40-60), mature (61-74), or older adult (75+). Caregiver depression and anxiety symptoms are separate continuous symptomatology measures (r=0.32), measured and constructed as described under recipient mental health primary stressors.

Other Background/Contextual Factors (reported as indicated)

Caregiver relation type indicates the caregiver reports being recipient's spouse (reference), adult child, other

Table 1. Weighted Sample Descriptive Statistics (unweighted N = 2,202)

Variable	%	Mean	SD	Min	Max
Primary stressors					
CR self-rated health (Range: 0-4)		1.60	1.04	0	4
CR depressive symptoms (PHQ-2)		1.61	1.62	0	6
CR anxiety symptoms (GAD-2)		1.43	1.65	0	6
CR 3+ medical diagnoses (reference = <3)	74.29				
Primary appraisal					
CG tercile of hours helped in past month					
0–20 (reference)	39.76				
21–63	33.75				
64 or more	26.48				
CG frequency of ADL help (mean)		1.34	1.19	0	4
CG frequency of IADL help (mean)		1.55	0.81	0	4
CG number of medical tasks		2.35	1.94	0	6
Key background/contextual factors					
CG race					
White (reference)	67.38				
Black	12.49				
Hispanic	9.22				
Other	10.91				
CG education					
Less than high school (reference)	10.34				
High school	26.84				
Some college	35.51				
Bachelor's degree or higher	27.31				
CG work status	27.31				
Employed (reference)	41.41				
Unemployed	26.87				
Retired	31.72				
CG female (reference = male)	62.37				
CG age	11 77				
Young adult, 18–39 (reference)	11.77				
Middle-aged, 40–60	40.59				
Mature adult, 61–74	31.65				
Older adult, 75+	15.99				
CG depression symptoms (PHQ-2)		0.97	1.36	0	6
CG anxiety symptoms (GAD-2)		1.04	1.40	0	6
Other background/contextual factors					
CG relation to care recipient					
Spouse (reference)	21.29				
Adult child	45.50				
Other relative	22.21				
Other nonrelative	10.99				
CG in household (reference = no)	41.86				
CG caregiving more than 5 years (reference = no)	50.32				
CG number of helpers		1.92	0.95	1	5
CR female (reference = male)	68.57				
CR different race than CG (reference = no)	9.29				
CR age					
Young old, 65–74 (reference)	31.71				
Old old, 75–84	36.56				
Oldest old, 85+	31.73				
CR education					
Less than high school (reference)	28.91				
High school	29.64				
Some college	25.00				

Table 1. Continued

Variable	%	Mean	SD	Min	Max
Bachelor's degree or higher	16.45				
CR homeowner (reference = no)	54.11				
CR receives social assistance (reference = no)	20.56				

Note: ADL = Activities of daily living; CG = Caregiver; CR = Care recipient; GAD-2 = Generalized Anxiety Disorder 2-item; IADL = Instrumental activities of daily living; PHQ-2 = Patient Health Questionnaire 2-item.

relative (e.g., sibling, in-law), or nonrelative (e.g., friend, neighbor). Due to high marital status correlation, marital status is excluded from final models. Neither variable was significant or changed sensitivity analysis coefficients. Coresidence indicates caregiver's self-reported coresidence with recipient (=1) or not. Long-term caregiver indicates the caregiver reports assisting the recipient for 5 years or more (=1), or fewer. Other helper is a recipient-reported continuous measure indicating how many other caregivers provide assistance. Recipient gender indicates the recipient self-reports being female (=1) or male; race indicates the recipient self-reports being different race (=1) or same race as caregiver; age indicates recipient's self-reported age as "young old" (reference; 65-74 years), "old old" (75-84), or "oldest old" (85+). Recipient education indicates recipient's self-reported highest education level as less than high school (reference), high school/equivalent, some college/ technical school, or college degree and above; homeowner indicates the recipient self-reports owning a home (=1) or not; and social assistance indicates recipient self-reports receiving social assistance in the past year (food stamps, other food assistance, or gas and electricity assistance) (=1) versus not.

Method

LCA was employed to identify distinguishable caregiving experience subtypes, burden and benefit patterns characterizing each subtype, and subtype correlates. LCA identifies a categorical latent variable using manifest polytomous measurement items (Collins & Lanza, 2010). It discerns mutually exclusive latent classes, maximizing heterogeneity between and homogeneity within them. Using item response patterns, LCA assigns persons class membership. Item response probabilities (IRPs) are class-specific likelihoods of individuals' item endorsement. NSOC analytic weights were used in all analyses to account for sample selection probability and nonresponse. A detailed description of the method below is available in Supplementary Material 1.

Two- to six-class solutions were estimated with multiple random starting values and model estimation optimizations to avoid local maxima. Models reached convergence without boundary solutions. A low Bayesian Information Criterion, high relative entropy, and reliable class assignment allowing covariate inclusion indicate good classification and model fit. The preferred class solution contains

a non-negligible sample proportion and is substantively interpretable.

Burden and benefit items were used to estimate latent classes, coded dichotomously for respondent's item endorsement (=1). Dichotomization reduces response pattern possibilities, aiding model identification. Using high quality indicators improves model fit and helps classification, and all indicators satisfied homogeneity and separation criteria. Sensitivity analyses with differently coded and fewer indicators produced the same class structure; parameters are shown from the best classification certainty solution retaining substantively relevant indicators.

LCA regression identified class membership predictors with three-step covariate inclusion (Asparouhov & Muthén, 2014). This approach preserves classification uncertainty otherwise lost. To ensure model stability, fit, response probabilities, and class prevalence were examined after including predictor variables separately in estimating class solution. Predictor variables were then added in conceptually meaningful predictor blocks (primary stressors, primary appraisal, background/contextual factors) before including the full array.

Data was multiply imputed to address missing values. Due to nonresponse, 15% of cases had values missing; recipient education (5.53%) and caregiving hours (5.49%) were main sources. Assuming randomly missing data, 20 imputed datasets were generated using variance-covariance algorithm recommended for multiple categorical variable models (Asparouhov & Muthén, 2010). Final model variables, analytic weights, strata, and sampling unit variables were used to address complex survey design. No implausible values were produced. Analyses proceeded in Stata 14.1 and Mplus 7.4.

Results

Variable correlations and sample descriptive statistics outline are available in Supplementary Materials 2 and 3.

Latent Class Analysis

Table 3 shows caregiving experience type class solution fit indices. The bootstrapped likelihood ratio test is uninformative in model selection; other indices suggest the five-class model balances parsimony and data fit well. Gains from estimating additional classes level off after the five-class solution. Information criteria drop significantly with

Table 2. Sample Percentage of Caregivers Experiencing a Particular Caregiving Burden or Benefit (unweighted N = 2,202)

	Item	Unweighted N	Weighted
	Item	IN .	/0
Caregiving	Emotional		
burden	Emotionally difficult	892	40.34
	No time for self	1,053	45.57
	Too much to handle	888	39.16
	As soon as routine, need	653	29.93
	change		
	Interpersonal		
	Care recipient argues with	1,265	59.32
	you		
	Care recipient gets on your	1,396	63.83
	nerves		
	Physical		
	Exhausted when you go to	1,014	45.71
	sleep		
	Physically difficult	466	20.28
	Financial		
	Financially difficult	398	17.86
	Kept from work	198	7.96
	Social		
	Kept from visiting friends/	372	13.65
	family		
	Kept from religious services	212	8.26
	Kept from going out for	295	11.08
	enjoyment		
	Kept from volunteering	160	5.80
	Kept from caring for others	89	3.55
	Kept from meetings groups	202	7.33
Caregiving	Emotional		
benefits	Gives you satisfaction	1,922	86.06
	Interpersonal		
	Brought closer to care	1,562	70.30
	recipient		
	Enjoy being with care	1,860	83.85
	recipient		
	Care recipient appreciates	1,878	86.72
	you		
	Behavioral/cognitive		
	More confident in abilities	1,096	46.88
	Taught you how to deal with	1,241	53.35
	difficulties		

Note: Source: NSOC 2015.

estimating additional classes and are approximately 500 points lower for five than four classes (Δ AIC = 539.49; Δ aBIC = 481.54), indicating better fit; similarly, the five-class model's maximum log-likelihood value drops approximately 300 points compared to four classes (Δ LL = 292.75) and reductions are smaller subsequently. The five-class information matrix condition number (=0.00109) suggests no identification problems; values <10⁻⁶ indicate model nonidentification. The five-class model provides high

classification certainty enabling covariate inclusion and has low classification error (entropy = 0.82), with posterior probability closely matching most likely class membership assignment (data not shown). Analyses proceeded with the five-class solution.

What Are the Distinguishable Caregiving Experience Subtypes?

Five caregiving experience types emerged. Distinct burden and benefit perceptions uniquely characterize each type. Each class was assigned a shorthand label. Caregiving experience types are groupings resulting from empirical analysis; labels are based on what item response patterns suggest about data, but are arbitrary and used to facilitate result presentation.

In two types (labeled "Intensive" and "Balanced Caregivers"), burden and benefits co-occur, differing in item endorsement strength and social burden reports. In one type ("Dissatisfied Caregivers"), caregivers report predominantly burden. In two types ("Relationship" and "Satisfied Caregivers"), caregivers predominantly experience benefits, differing in benefit magnitude and interpersonal domain. Table 4 shows caregiving experience types, type prevalence, and IRPs for indicators within classes.

Caregivers Experiencing Burden Alongside Benefits

"Intensive Caregivers" (high burden, moderate benefits; 10% of informal caregivers). These caregivers experience high burden in emotional, interpersonal, and physical domains, and are the only group perceiving social burden. Compared to others, their perceived burden is highest. Alongside high burden, they report multiple moderate benefits across emotional, interpersonal, and cognitive/behavioral domains. Their perceived benefits are comparable to those of caregivers reporting little to no burden. However, this group does not endorse benefits as strongly as the second group reporting burden alongside benefits, Balanced Caregivers.

"Balanced Caregivers" (moderate burden, high benefits; 18%). Like Intensive Caregivers, Balanced Caregivers report burden. Contrary to Intensive Caregivers' reports, Balanced Caregivers do not perceive social burden; caregiving does not appear to interfere with their social activities. Similarly to Intensive Caregivers, they also perceive benefits across domains. Balanced Caregivers' benefits perception is somewhat higher than Intensive Caregivers'; notably, it is similar to Satisfied Caregivers', who report no burden.

Caregivers Experiencing Predominantly Burden

"Dissatisfied Caregivers" (high burden, absent benefits; 15%). Dissatisfied Caregivers' burden reports are comparable to Intensive or Balanced Caregivers'; they report

Table 3. Model Fit Statistics for Caregiving Experience Weighted Two to Six-latent Class Solutions

Classes	LL	Df	AIC	aBIC	Entropy	LMR test	BLR test	Matrix condition #
2	-21,445.39	45	42,980.77	43,094.17	0.84	4,464.45 (0.0000)	4,923.48 (0.0000)	0.000900
3	-20,710.87	68	41,557.74	41,729.10	0.82	1,460.78 (0.0144)	1,515.07 (0.0000)	0.000641
4	-20,322.44	91	40,826.87	41,056.19	0.82	772.50 (0.3751)	786.24 (0.0000)	0.001290
5	-20,029.69	114	40,287.38	40,574.65	0.82	582.21 (0.6016)	651.53 (0.0000)	0.001090
6	-19,851.55	137	39,975.78	40,321.01	0.83	355.59 (0.5484)	325.68 (0.0000)	0.000336

Note: AIC = Akaike information criterion; aBIC = Adjusted Bayesian information criterion; BLR = Bootstrap likelihood ratio; df = Degrees of freedom; LL = Maximum loglikelihood; LMR = Lo-Mendell-Rubin; # = Number.

Table 4. Five Latent Classes of the Subjective Experiences of Informal Caregiving to Older Adults (unweighted N = 2,202)

		Latent class								
		Intensive Caregivers	Balanced Caregivers	Dissatisfied Caregivers	Relationship Caregivers	Satisfied Caregivers 32%				
	Predicted class membership	10%	18%	15%	26%					
	Items	Probability of endorsing item								
Caregiving	Emotional									
burden	Emotionally difficult	0.82	0.61	0.79	0.16	0.17				
	No time for self	0.90	0.77	0.57	0.24	0.25				
	Too much to handle	0.82	0.73	0.54	0.19	0.15				
	As soon as routine, need change	0.69	0.54	0.48	0.09	0.12				
	Interpersonal									
	Care recipient argues with you	0.79	0.79	0.79	0.52	0.38				
	Care recipient gets on your nerves	0.87	0.84	0.93	0.58	0.36				
	Physical									
	Exhausted when you go to sleep	0.85	0.81	0.54	0.25	0.26				
	Physically difficult	0.57	0.39	0.28	0.09	0.04				
	Financial									
	Financially difficult	0.45	0.34	0.24	0.07	0.06				
	Kept from work	0.39	0.09	0.08	0.02	0.03				
	Social									
	Kept from visiting friends/family	0.80	0.16	0.15	0.01	0.02				
	Kept from religious services	0.59	0.06	0.05	0.02	0.01				
	Kept from going out for enjoyment	0.84	0.07	0.10	0.00	0.00				
	Kept from meetings, groups	0.62	0.04	0.02	0.00	0.00				
	Kept from caring for others	0.28	0.01	0.03	0.00	0.01				
	Kept from volunteering	0.40	0.06	0.04	0.00	0.01				
Caregiving	Emotional									
benefits	Gives you satisfaction	0.84	0.95	0.60	0.80	0.98				
	Interpersonal									
	Brought closer to care recipient	0.57	0.95	0.21	0.54	0.96				
	Enjoy being with care recipient	0.68	0.96	0.39	0.89	0.98				
	Care recipient appreciates you	0.68	0.91	0.56	0.95	0.98				
	Behavioral/cognitive									
	More confident in abilities	0.45	0.62	0.11	0.06	0.88				
	Taught you how to deal with difficulties	0.56	0.82	0.30	0.04	0.87				

Note: Item response probabilities higher than 0.50 are highlighted to facilitate interpretation. The conditional probability of not endorsing the item can be obtained by subtracting the probability of endorsing it from 1. The "significance" of bold items is explained in the note ("item response probabilities higher than 0.50 are highlighted to facilitate interpretation"). These are not regression coefficients significant at p < 0.05, etc; they are item response probabilities from latent class analysis.

high burden in emotional, interpersonal, and physical domains. However, unlike these groups, Dissatisfied Caregivers do not find their experiences beneficial. They endorse the fewest benefits of any class and have lowest endorsement probabilities. They indicate recipients appreciate them, but endorse no other items. Balanced and Dissatisfied Caregivers report comparable burden levels but also report benefits; Dissatisfied Caregivers do not.

Caregivers Experiencing Predominantly Benefits

"Relationship Caregivers" (interpersonal burden and benefits; 26%). Relationship Caregivers are unlikely to experience burden. Their reported burden is low, and unlike in other burdened groups, limited to the interpersonal (recipients argue, get on their nerves). Conversely, Relationship Caregivers are highly likely to report benefits, but similarly limited to interpersonal and emotional domains. Thus, unlike Intensive, Balanced, or Dissatisfied Caregivers, Relationship Caregivers perceive predominantly benefits, but at relatively lower levels than Satisfied Caregivers, the second benefits group.

"Satisfied Caregivers" (absent burden, high benefits; 32%). Satisfied Caregivers do not report burden and perceive benefits only. They are highly likely to perceive benefits across all domains, and more likely than others to experience behavioral/cognitive benefits. Their positive appraisals—comparable to Balanced Caregivers', who also report considerable burden—are higher than in other groups. They report a highly beneficial experience.

Which Factors Predict Caregiving Experience Types?

Table 5 shows LCA regression results predicting caregiving type membership, displaying relative risk (RR) ratios and confidence intervals. The fully adjusted model is shown; coefficients obtained do not change appreciably and statistical significance pattern remains constant after variable additions. Table 6 showing model fit improvements after each block addition is available in Supplementary Material 4.

Primary Stressors

Poor recipient physical and mental health are associated with poor caregiving experiences in full models (Table 5). Compared to Dissatisfied Caregivers, with each point increase in recipients' depression symptoms, caregivers have 50% lower relative probability of being Balanced Caregivers (RR = 0.50, p < .000). Similarly, they have 52% lower relative probability of being Relationship (RR = 0.48, p < .01), and 53% lower relative probability of being Satisfied Caregivers (RR = 0.47, p < .001). Compared to those caring for recipients with fewer diagnoses, those caring for recipients with fewer diagnoses, those caring for recipients with 3+ have a 55% greater relative probability of being Balanced than Dissatisfied Caregivers (RR = 0.45, p < .000). Results thus suggest that recipient depression and multiple medical conditions are associated with caregivers' greater chances of being Dissatisfied Caregivers, reporting fewest benefits.

Primary Appraisal

In full models, higher caregiving levels are associated with ambivalent rather than only negative experiences

(Table 5). Compared to caregivers providing fewer care hours, those providing 21–63 have an over two-fold higher relative probability of being Intensive than Dissatisfied Caregivers (RR = 3.82, p < .001). Similarly, they have an almost twofold higher relative probability of being Balanced Caregivers (RR = 2.86, p < .000). With each ADL help frequency increase, caregivers have 75% higher relative probability of being Intensive (RR = 1.73, p < .001) and 55% greater risk of being Balanced versus Dissatisfied Caregivers (RR = 1.55, p < .001). Finally, each additional medical task performed is associated with 43% higher relative probability of being Intensive (RR = 1.43, p < .001) and 24% lower relative probability of being Relationship versus Dissatisfied Caregiver (RR = 0.76, p < .01).

Caregiving hours, ADL, and medical task assistance are thus associated with perceiving benefits alongside burden, relative to perceiving predominantly burden. Although providing time-intensive care may engender high burden, it may also facilitate perceiving benefits alongside burden; persons providing such assistance are more likely to be Intensive or Balanced Caregivers.

Key background/contextual factors

Black caregivers are more likely to have beneficial experiences than white counterparts, while caregiver older age and poor mental health are associated with poorer experiences in full models (Table 5). Compared to whites, Black caregivers have an almost twofold higher relative probability of being Balanced (RR = 2.86, p <.05) and an over twofold higher probability of being Satisfied versus Dissatisfied Caregivers (RR = 3.32, p <.01). Middle-aged caregivers have 70% lower relative probability than young adults of being Relationship versus Dissatisfied Caregivers (RR = 0.30, p < .05). Similarly, mature adult caregivers have 77% lower relative probability than young adults of being Relationship (RR = 0.23, p < .05) and 73% lower relative probability of being Satisfied versus Dissatisfied Caregivers (RR = 0.27, p < .05). With each increase in their depressive symptoms score, caregivers have 45% lower relative probability of being Relationship (RR = 0.55, p < .05) and 51% lower probability of being Satisfied versus Dissatisfied Caregivers (RR = 0.49, p < .01). Compared to the latter, they have 52% lower relative probability of being Relationship (RR = 0.48, p < .01) and 50% lower relative probability of being Satisfied Caregivers (RR = 0.50, p < .05) with additional anxiety symptoms. Increased anxiety symptoms are also associated with higher probability of being Intensive versus Dissatisfied Caregivers (RR = 1.73, p < .05).

In summary, Black caregivers have a higher relative probability than whites of perceiving benefits. Conversely, older age and depression or anxiety may put caregivers at risk of perceiving caregiving as primarily burdensome.

 Table 5.
 Predictors of Five Types of the Subjective Experience of Informal Caregiving to Older Adults

	Class 1: Intensive Caregivers			Class 2: Balanced Caregivers				Class 4: Relationship Caregivers		Satis	Class 5: Satisfied Caregivers	
	RR	CI	p	RR	CI	p	Reference	RR	CI p	RR	CI	p
Primary stressors												
CR self-rated health score	0.77	0.51-1.16		0.93	0.69-1.25			0.94	0.69-1.29	0.87	0.65-1.17	
CR depression symptoms (PHQ-2)	0.76	0.49-1.20		0.50	0.34-0.72	* * *		0.48	0.33-0.71 **	* 0.47	0.32-0.70	* * *
CR anxiety symptoms (GAD-2)	1.08	0.70 - 1.67		1.49	0.95-2.34			1.07	0.68-1.68	1.19	0.77-1.82	
CR 3+ diagnoses (ref = <3) Primary appraisal	0.58	0.22-1.54		0.45	0.22-0.93	*		0.51	0.25-1.03	0.49	0.24–1.00	
Hours/month caregiving (ref = $0-20$)												
21–63		1.35-10.79	*	2.86	1.33-6.14	**		1.67	0.86-3.24	1.95	0.95-4.04	
64 or more		0.95–14.19			0.77-3.68				0.30-1.92		0.73-3.50	
Frequency of ADL help		1.30-2.35	* * *		1.20-2.00	* *			0.66-1.24		0.94–1.62	
Frequency of IADL help		0.82-4.28			0.60-1.66				0.53-1.54		0.75-2.16	
Number of medical tasks		1.16–1.78	* *		0.92-1.36				0.63-0.93 **		0.72-1.07	
Key background/contextual factors	11.10	1110 11/0		1112	0.02 1.00			0.70	0.00 0.50	0.00	01/2 110/	
CG race (ref=white)												
Black	1.07	0.38-3.03		2.86	1.25-6.51	*		2.34	0.90-6.11	3.32	1.49-7.42	* *
Hispanic		0.48-5.08			0.85-7.09				0.07-2.89		0.76-6.35	
Other race		0.11-1.60			0.26-2.01				0.20-1.42		0.44-2.04	
CG education (ref=less than HS)												
High school	0.54	0.17-1.76		0.86	0.31-2.39			1.02	0.30-3.44	0.98	0.33-2.88	
Some college	0.84	0.25-2.82		0.97	0.34-2.80			1.07	0.34-3.34	0.90	0.33-2.46	
BA+	1.11	0.31-3.95		0.60	0.19-1.95			0.97	0.29-3.21		0.10-1.09	
CG employment (ref=employed)												
Unemployed	1.11	0.51 - 2.37		1.15	0.50-2.62			1.38	0.68 - 2.79	1.31	0.74-2.31	
Retired	1.07	0.51-2.26		1.48	0.64-3.43			1.54	0.79-2.99	1.92	1.00-3.66	
CG female (ref=male)	1.70	0.86 - 3.37		1.43	0.72 - 2.85			0.90	0.51-1.58	1.31	0.76-2.27	
CG age (ref=young adult, 18–39)												
Middle-aged (40-60)	1.08	0.24-4.90		1.01	0.32 - 3.21			0.30	0.11-0.88 *	0.47	0.17-1.28	
Mature adult (61-74)	0.90	0.18-4.43		0.55	0.13-2.36			0.23	0.07-0.76 *	0.27	0.09-0.81	*
Older adult (75+)	2.12	0.28-15.94		0.82	0.10-6.41			0.46	0.09-2.38		0.12-2.91	
CG depression symptoms (PHQ-2)	1.11	0.61 - 1.99		0.77	0.45-1.33			0.55	0.34-0.90 *	0.49	0.32-0.76	가 가
CG anxiety symptoms (GAD-2)		0.81-2.25	*	1.45	0.96-2.18			0.48	0.28-0.83 **	0.50	0.29-0.84	*
Other background/contextual factors	3											
CG recipient relation (ref=spouse)												
Adult child		0.44-5.23			0.16–1.87				0.24-2.24		0.30-2.71	
Other relative		0.24-0.50			0.09–1.52				0.22-2.55		0.37–4.68	
Nonrelative		0.01-3.08			0.11–2.58				0.51–7.05		1.28–17.69	
CG coresident (ref=no)		0.16-0.99			0.21-0.92	*			0.20-1.12		0.19-0.78	* *
CG caregiving 5+ years (ref=no)		0.29-0.90	<i>ት</i>		0.41–1.32				0.46-1.32		0.51–1.31	
CG number of other helpers		0.59–1.41			0.75-1.51				0.66–1.38		0.82-1.61	
CR female		0.46–1.73			0.78–2.16				0.56-2.13		1.31–3.63	* *
CR different race than caregiver	1.43	0.32-6.48		1.20	0.33-4.36			1.65	0.58-4.66	0.86	0.42–1.78	
CR age (ref=young old, 65–74)												
Old old, 75–84		0.41–2.39			0.32-1.43				0.21-1.13		0.25-1.06	e.
Oldest old, 85+	0.64	0.28-1.47		0.51	0.20-1.27			0.43	0.18-1.13	0.43	0.20-0.94	*
CR education (ref=less than HS)	1.05	0.40.2.75		0.44	0.40.4.07			0.60	0.20 1.62	0.50	0.22.4.25	
High school		0.40-2.75			0.18–1.07				0.29–1.62		0.23-1.35	
Some college		0.21–2.13			0.16–1.16				0.21–1.48		0.22–1.41	
BA+		0.36-2.91			0.18–1.45				0.29–2.50		0.20–1.43	
CR homeowner (ref=no)		0.46–1.63			0.46–1.63				0.78–2.85		0.99–3.22	
CR social assistance (ref=no)	1.13	0.50-2.62		1.12	0.48-2.59			0.93	0.34-2.53	1.2/	0.59–2.73	

Note: Unweighted N = 2,202. *p < .05, **p < .01, ***p < .001. CI = Confidence interval; CR = Care recipient; CG = Caregiver; PHQ-2 = Patient Health Questionnaire-4; RR = Relative risk.

They are likely to be Dissatisfied Caregivers, reporting lowest benefits.

Other Background/Contextual Factors

In full models, coresidence, caregiving duration, recipient gender and age are associated with poor rather than ambivalent or positive experiences (Model 5). Compared to spouses, nonrelatives have an over threefold higher relative probability of being Satisfied versus Dissatisfied Caregivers (RR = 4.76, p < .05). Compared to noncoresident caregivers, coresident caregivers have 60% lower relative probability of being Intensive (RR = 0.40, p < .05), 56% lower probability of being Balanced (RR = 0.44, p < .05), and 62% lower probability of being Satisfied versus Dissatisfied Caregivers (RR = 0.38, p < .01). Similarly, long-term caregivers have 49% lower relative probability of being Intensive versus Dissatisfied Caregivers (RR = 0.51, p < .05), compared to those caregiving fewer than 5 years. Compared to those assisting males, women's caregivers have a 1.18-fold higher relative probability of being Satisfied versus Dissatisfied Caregivers (RR = 2.18, p < .01). Conversely, oldest old's caregivers have 57% lower relative probability of being Satisfied versus Dissatisfied Caregivers (RR = 0.43, p < .05) compared with young old's caregivers.

Results thus suggest nonrelative caregivers likely have beneficial experiences. Conversely, coresident, long-term caregivers, and those assisting men and oldest old may perceive predominantly burden. They are likely Dissatisfied Caregivers, not appraising caregiving positively.

Discussion and Implications

With the oldest old population growing and rising degenerative and chronic illness prevalence, proportions of individuals living at home with disabilities will increase. Most older individuals with care needs live in communities, and for over two-thirds, family caregivers are their only assistance source (Doty, Mahoney, & Sciegaj, 2010). This study identified five caregiving experience types and factors associated with burdensome versus beneficial appraisals, using a nationally representative sample of informal caregivers to older adults. Findings highlight informal caregivers' experience heterogeneity and ambivalence, and identify groups in need of assistance; findings are discussed below.

Burden and benefit level and domain uniquely characterize each caregiving experience subtype. Intensive and Balanced Caregivers report experiencing burden alongside benefits. Both groups report high burden with benefits, comparable with those experiencing benefits alone. Even at high care levels, positive and negative experiences may not be mutually exclusive, and caregivers may still derive interpersonal, behavioral, or other benefits from caregiving (Kramer, 1997). Intensive but not Balanced Caregivers report social burden. Caregivers may only experience isolation and role interference when offering intensive care, like personal or nursing assistance, which are done

regularly and can conflict with caregivers' lives more than occasional shopping or banking (Tebb & Jivanjee, 2000) Satisfied Caregivers report highest benefits and are the largest group, representing approximately one-third of caregivers. This may reflect recipients' relatively good mental health and caregivers' relatively low reported help frequency. Relationship Caregivers similarly report benefits, but limited to emotional and interpersonal domains, with some interpersonal difficulties. Caregiving dyads often develop close relationships, where interpersonal tensions are common (Quinn et al., 2012). Poor mental health and dementia may also impair relationships, engendering such experiences (Hooker, Monahan, Bowman, Frazier, & Shifren, 1998). The number of U.S. older persons living with dementia is expected to triple by 2050, indicating future caregiver generations may need more assistance with relational issues (Alzheimer's Association, 2017). Finally, Dissatisfied Caregivers report predominantly burden. Their reported benefit near-absence is notable, as they report burden comparable to that of caregivers simultaneously perceiving high benefits.

To explain these differences, primary stressors, primary appraisal, and background/contextual factors associated with burdensome versus beneficial experiences were identified. Two groups are likely to report positive experiences: Black and nonrelative caregivers. Prior research similarly suggests that at comparable care levels, minority caregivers perceive more benefits than whites (Janevic & Connell, 2001). Medicaid eligibility among minority and low SES persons may provide access to formal caregiving services, or familialism may encourage minority caregivers to accept the role voluntarily, making caregiving less stressful. However, as U.S. population ages, informal caregivers will also age. Older adults are becoming more ethno-racially diverse; health disparities and growing proportions of disabled African American, Hispanic, and Native American older adults in future cohorts may change minority caregivers' predominantly positive experiences. Contrary to expectations, no differences emerged in appraisals between adult children and spouses—groups high in the care chain, typically asked first to assist, and which may provide qualitatively and quantitatively similar care (Penning, 1990). However, nonrelatives more likely than spouses report predominantly positive experiences. They are lower in care hierarchy and may not provide intensive care that spouses or adult children perform. But as families become smaller, more geographically mobile, and less able to assist, nonrelatives may give the frequent, intensive care family members typically provide. Their positive perceptions may shift accordingly. As reliance on informal care grows, anticipating subgroup experience changes can inform policies resulting in long-term care systems better prepared to support both recipients' and caregivers' quality of life.

Several groups report ambivalent experiences. Caregivers with anxiety symptoms less likely report predominantly positive experiences, but also more likely report ambivalent

rather than predominantly burdensome ones. This suggests anxiety may not interfere strongly with perceiving benefits alongside burden (Richters, 1992). Further, caregivers offering ADL, medical assistance, and more care hours more likely perceive benefits alongside burden than burden alone. Such factors indicate intensive care, making burden unsurprising. However, they simultaneously report high benefits. Notably, frequent IADL assistance—like shopping and transportation, less intensive and intimate—does not shape experiences similarly. Frequent care like ADL or medical tasks may be more personal and facilitate closer relationships, or give caregivers satisfaction (Quinn et al., 2012). This may engender benefit perceptions even alongside high burden. Expanded access to support services and specialized care training may facilitate these caregivers' continued well-being despite burden. State-sponsored programs like Caregiver Advise, Record, Enable Act partner family caregivers with medical staff to train the former in nursing tasks, alleviating some burden. Besides assistance, better respite care availability may facilitate recuperation.

Finally, multiple groups report mostly negative experiences. Those assisting depressed recipients likely experience predominantly burden (they may also experience high burden alongside moderate benefits, as this relationship was not statistically distinct from reporting predominantly burden). The finding is notable as mental health reports collected from recipients rather than through caregivers were used; studies relying on proxy reports may confound perceived burden and caregiver-reported recipient mental health. The pattern is weaker for caregivers assisting recipients with multiple diagnoses and does not hold when recipients report anxiety or poor self-rated health, suggesting recipient depression may be especially taxing (Pinquart & Sorensen, 2003). Caregivers are also likely to perceive burden when depressed themselves. This may reflect caregivers' greater poor mental health likelihood compared to noncaregivers or indicate that depressed respondents rely on negative information, giving negatively biased reports (Richters, 1992). Further, caregivers appraise higher burden with increasing age. Middle-aged caregivers, likely adult children, could be balancing competing family and work demands (Longacre et al., 2016). Similarly, mature adults, likely caring for aging spouses, may themselves have health issues increasing objective and perceived burden. Finally, coresident and long-term caregivers report predominantly burden. Coresident caregivers often report poor mental health, and coresidence may indicate high care levels or interpersonal tensions resulting in negative appraisals (Schulze & Rossler, 2005). Transitioning from occasional to more stressful personal and end-of-life care, as recipients' health declines, may explain long-term caregivers' burden.

Expanding homecare workforce and workplace programs may provide these caregivers with financial security and temporal resources. With middle-aged caregivers balancing other family/work demands, women increasingly working outside homes, and geographical mobility diminishing the caregiver pool, paid caregivers may increasingly provide necessary care. U.S. homecare workforce is growing, but has little education, poor working conditions, and high turnover (Poo & Whitlach, 2016). Well-trained homecare workforce would ensure high-quality long-term support for older persons given fewer available family caregivers. For those wishing to assist loved ones themselves, paid extended family leave, sick time, unemployment insurance, and employer-sponsored eldercare may help balance work and caregiving (Shabo, 2015).

This analysis has limitations. Two NSOC waves are available, but yield sample sizes precluding longitudinal analyses. Although this study controls for caregiving duration to account for changing perceptions, future research on subsequent waves may use latent class transition analysis to examine experiences longitudinally. Relatedly, analyses control for caregiver mental health, but cross-sectional data do not indicate whether caregivers experienced poor mental health prior to assuming caregiving, or developed it subsequently. Similarly, data including baseline relationship measures may help discern whether interpersonal burden results from caregiving specifically, or is a durable relationship characteristic. The study also does not control for recipient cognitive impairment; measures are only available for NHATS sample persons subset and may differ in proxy reports. Further, class and covariate reference group choice is arbitrary, and other comparisons are possible using the same data. Finally, NSOC does not include information about choosing caregiving voluntarily. Motivation likely shapes experiences; studies should account for whether individuals willingly become caregivers.

Despite limitations, this study shows that even with high burden, caregivers may experience high benefits. When not possible to reduce burden, assistance programs may focus on increasing positive perceptions. Caregivers experiencing benefits have better mental health and continue in their role longer than burdened counterparts (Pinquart & Sorensen, 2003). Given U.S. long-term care's increasing reliance on informal caregivers, it is crucial to address these groups' needs, facilitating positive caregiving experiences.

Supplementary Data

Supplementary data are available at *The Gerontologist* online.

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Conflicts of Interest

The author declares no conflict of interest.

References

- Alzheimer's Association. (2017). 2017 Alzheimer's disease facts and figures. Available online at http://www.alz.org/facts/ (Accessed June 19, 2917).
- Andrén, S., & Elmståhl, S. (2005). Family caregivers' subjective experiences of satisfaction in dementia care: Aspects of burden, subjective health and sense of coherence. Scandinavian Journal of Caring Sciences, 19, 157–168. doi:10.1111/j.1471-6712.2005.00328.x
- Angel, J. L., Rote, S. M., Brown, D. C., Angel, R. J., & Markides, K. S. (2014). Nativity status and sources of care assistance among elderly Mexican-origin adults. *Journal of Cross-Cultural Gerontology*, 29, 243–258. doi:10.1007/s10823-014-9234-9
- Asparouhov, T., & Muthén, B. (2010). *Multiple imputation with Mplus*. Available online at https://www.statmodel.com/download/Imputations7.pdf (Accessed September 26, 2017).
- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, **21**, 329–341. doi:10.1080/10705511.2014.915181
- Barbosa, A., Figueiredo, D., Sousa, L., & Demain, S. (2011). Coping with the caregiving role: Differences between primary and secondary caregivers of dependent elderly people. *Aging & Mental Health*, **15**, 490–499. doi:10.1080/13607863.2010.543660
- Beach, S. R., Schulz, R., Yee, J. L., & Jackson, S. (2000). Negative and positive health effects of caring for a disabled spouse: Longitudinal findings from the caregiver health effects study. *Psychology and Aging*, 15, 259–271. doi:10.1037/0882-7974.15.2.259
- Braithwaite, V. (1996). Between stressors and outcomes: Can we simplify caregiving process variables? *The Gerontologist*, 36, 42–53. doi:10.1093/geront/36.1.42
- Carbonneau, H., Caron, C., & Desrosiers, J. (2010). Development of a conceptual framework of positive aspects of caregiving in dementia. *Dementia*, 9, 327–353. doi:10.1177/1471301210375316
- Coe, M., & Neufeld, A. (1999). Male caregivers' use of formal support. Western Journal of Nursing Research, 21, 568–588. doi:10.1177/01939459922044045
- Cohen, C. A., Colantonio, A., & Vernich, L. (2002). Positive aspects of caregiving: Rounding out the caregiver experience. *International Journal of Geriatric Psychiatry*, 17, 184–188. doi:10.1002/gps.561
- Collins, L. M., & Lanza, S. T. (2010). Latent class and latent transition analysis with applications in the social, behavioral, and health sciences. Hoboken, NJ: Wiley.
- Cooper, C., Balamurali, T. B., & Livingston, G. (2007). A systematic review of the prevalence and covariates of anxiety in caregivers of people with dementia. *International Psychogeriatrics*, 19, 175–195. doi:10.1017/S1041610206004297
- Doty, P., Mahoney, K. J., & Sciegaj, M. (2010). New state strategies to meet long-term care needs. *Health Affairs (Project Hope)*, **29**, 49–56. doi:10.1377/hlthaff.2009.0521
- Dura, J. R., Stukenberg, K. W., & Kiecolt-Glaser, J. K. (1990). Chronic stress and depressive disorders in older

- adults. Journal of Abnormal Psychology, 99, 284–290. doi:10.1037/0021-843X.99.3.284
- Dura, J. R., Stukenberg, K. W., & Kiecolt-Glaser, J. K. (1991). Anxiety and depressive disorders in adult children caring for demented parents. *Psychology and Aging*, 6, 467–473. doi:10.1037/0882-7974.6.3.467
- Evercare and National Alliance for Caregiving. (2008). Evercare study of Hispanic family caregiving in the U.S: Findings from a national study. Bethesda, MD. Retrieved from http://www.caregiving.org/data/Hispanic_Caregiver_Study_web_ENG_FINAL_11_04_08. pdf (Accessed March 28, 2017).
- Gitlin, L. N. & Schulz, R. (2012). Family caregiving of older adults. In *Public health for an aging society*, Prohaska, T. R. & Anderson, L.A. & Binstock, R. H. (Eds.), pp. 181-205. Baltimore, MD: The Johns Hopkins University Press.
- Hooker, K., Monahan, D. J., Bowman, S. R., Frazier, L. D., & Shifren, K. (1998). Personality counts for a lot: Predictors of mental and physical health of spouse caregivers in two disease groups. The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 53, P73–P85. doi:10.1093/geronb/53B.2.P73
- Hunt, C. H. (2003). Concepts in caregiver research. *Journal of Nursing Scholarship*, **35**, 27–32. doi:10.1111/j.1547-5069.2003.00027.x
- Janevic, M. R., & Connell, C. M. (2001). Racial, ethnic, and cultural differences in the dementia caregiving experience: Recent findings. *The Gerontologist*, 41, 334–347. doi:10.1093/geront/41.3.334
- Kramer, B. J. (1997). Gain in the caregiving experience: Where are we? What next? *The Gerontologist*, 37, 218–232. doi:10.1093/geront/37.2.218
- Kruithof, W. J., Post, M. W., & Visser-Meily, J. M. (2015). Measuring negative and positive caregiving experiences: A psychometric analysis of the Caregiver Strain Index Expanded. *Clinical Rehabilitation*, 29,1224–1233. doi:10.1177/0269215515570378
- Lawton, M. P., Moss, M., Kleban, M. H., Glicksman, A., & Rovine, M. (1991). A two-factor model of caregiving appraisal and psychological well-being. *Journal of Gerontology*, 46, P181–P189. doi:10.1093/geronj/46.4.P181
- Longacre, M. L., Valdmanis, V. G., Handorf, E. A., & Fang, C. Y. (2016). Work impact and emotional stress among informal caregivers for older adults. *Journals of Gerontology, Series B: Psychological and Social Sciences*, Advance Access. 72, 522– 531. doi:10.1093/geronb/gbw027
- Löwe, B., Wahl, I., Rose, M., Spitzer, C., Glaesmer, H., Wingenfeld, K.,...Brähler, E. (2010). A 4-item measure of depression and anxiety: Validation and standardization of the Patient Health Questionnaire-4 (PHQ-4) in the general population. *Journal of Affective Disorders*, 122, 86–95. doi:10.1016/j.jad.2009.06.019
- Montgomery, R. V., Stull, D. E., & Borgatta, E. F. (1985).
 Measurement and the analysis of burden. *Research on Aging*, 7, 137–152. doi:10.1177/0164027585007001007
- Neufeld, A., & Harrison, M. J. (1998). Men as caregivers: Reciprocal relationships or obligation? *Journal of Advanced Nursing*, 28, 959–968. doi:10.1046/j.1365-2648.1998.00818.x
- Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process. *The Gerontologist*, 30, 1–12. doi:10.1093/geront/30.5.583
- Penning, M. J. (1990). Receipt of assistance by elderly people: Hierarchical selection and task specificity. *The Gerontologist*, 30, 220–227. doi:10.1093/geront/30.2.220

- Pinquart, M., & Sörensen, S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 58, P112–P128. doi:10.1093/geronb/58.2.P112
- Pinquart, M., & Sörensen, S. (2005). Ethnic differences in stressors, resources, and psychological outcomes of family caregiving: A meta-analysis. *The Gerontologist*, **45**, 90–106. doi:10.1093/geront/45.1.90
- Pinquart, M., & Sörensen, S. (2006). Gender differences in caregiver stressors, social resources, and health: An updated meta-analysis. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 61, P33–P45. doi:10.1093/geronb/61.1.P33
- Poo, A.-J., & Whitlach, C. (2016). Caregiving in America: Supporting families, strengthening the workforce. *Generations*, 40, 87–93.
- Quinn, C., Clare, L., McGuinness, T., & Woods, R. T. (2012). The impact of relationships, motivations, and meanings on dementia caregiving outcomes. *International Psychogeriatrics*, 24, 1816– 1826. doi:10.1017/S1041610212000889
- Reskin, B. (2012). The race discrimination system. *Annual Review of Sociology*, **38**, 17–37. doi:10.1146/annurev-soc-071811-145508
- Richters, J. E. (1992). Depressed mothers as informants about their children: A critical review of the evidence for distortion. *Psychological Bulletin*, 112, 485–499. doi:10.1037/0033-2909.112.3.485
- Riedel, S. E., Fredman, L., & Langenberg, P. (1998). Associations among caregiving difficulties, burden, and rewards in caregivers to older post-rehabilitation patients. *The Journals of Gerontology*,

- Series B: Psychological Sciences and Social Sciences, 53, P165–P174. doi:10.1093/geronb/53B.3.P165
- Sanders, S. (2005). Is the glass half empty or half full? Social Work in Health Care, 40, 57–73. doi:10.1300/J010v40n03_04
- Schulze, B., & Rössler, W. (2005). Caregiver burden in mental illness: Review of measurement, findings and interventions in 2004-2005. Current Opinion in Psychiatry, 18, 684–691. doi:10.1097/01.vco.0000179504.87613.00
- Shabo, V. (2016). Advances in workplace protections for family caregivers. Generations, 7, 89–95. Available online at http://www.asaging.org/blog/advances-workplace-protections-family-caregivers (Accessed December 30, 2018).
- Tebb, S. & Jivanjee, P. (2000). Caregiver isolation: An ecological model. *Journal of Gerontological Social Work*, **34**, 51–72. doi:10.1300/J083v34n02 06
- Verbakel, E., Metzelthin, S. F., & Kempen, G. I. J. M. (2016). Caregiving to older adults: Determinants of informal caregivers' subjective well-being and formal and informal support as alleviating conditions. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, Advance Access. doi:10.1093/geronb/gbw047
- Walker, A. J., Pratt, C. C., & Eddy, L. (1995). Informal caregiving to aging family members: A critical review. Family Relations, 44, 402–411. doi:10.2307/584996
- Wolff, J. L. & Kasper, J. D. 2006. Caregivers of frail elders: Updating a national profile. *The Gerontologist*, 36, 344–356. doi:10.1093/ geront/46.3.344