

Resilience and Transitions From Dementia Caregiving

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Longitudinal studies have documented how dementia caregivers adapt to their role. Less is known about how resilience (defined as lower or higher perceived burden in the face of frequent care demands) affects key dementia caregiving outcomes. The present study utilized data from 1,979 dementia caregivers over a 3-year period to ascertain whether resilience influences transitions from dementia caregiving, such as institutionalization, care recipient death, or loss to follow-up. Multinomial logistic regression models revealed that high baseline resilience (low burden, high care demands) was associated with less frequent institutionalization and loss to follow-up as well as more frequent care recipient mortality. The findings suggest the need for researchers to capture the heterogeneity of caregiver resilience when examining the longitudinal implications of informal long-term care and delivering clinical interventions.

A CONSISTENT theme in dementia caregiving research is the diversity of response to care demands. Frequent care demands are more likely to account for caregiver distress or care recipient institutionalization (e.g., Gaugler, Kane, Kane, Clay, & Newcomer, 2003; Pinquart & Sörensen, 2003). However, the effect sizes reported as well as the variance explained in caregiving outcomes suggest that, although some dementia caregivers are overwhelmed by care responsibilities, others appear less likely to experience the negative implications of care provision, even in the face of considerable care demands (e.g., Gaugler, Davey, Pearlin, & Zarit, 2000). In this article we examine the concept of resilience in dementia caregiving, and we determine how resilience is potentially predictive of key exit transitions from at-home dementia care, such as nursing home placement, care recipient mortality, or loss to follow-up.

Resilience as a Concept

Much of the research attempting to establish resilience as a concept is derived from child development, and more specifically, developmental psychopathology (Masten, Best, & Garnezy, 1990). Researchers interested in the psychopathological development of children have emphasized the importance of studying both children who suffer from adverse outcomes and those who overcome various risk factors, as such comparisons can enhance our understanding of normative and atypical development during different phases of the life span (e.g., Masten et al.). In this literature, resilience is considered as positive or successful adaptation, competence, and functioning in the face of stressful experiences (Egeland, Carlson, & Sroufe, 1993). In the context of at-risk samples or populations, resilience has also been operationalized as the “positive” end of the distribution on psychopathological outcomes (see Egeland et al., p. 517). Various processes may encompass resilience: positive outcomes despite negative circumstances (“resilience as overcoming the odds”); sustained competence or positive development while experiencing continual threat or stress (“resilience as stress resistance”); and recovery from negative life experience or trauma (“resilience as recovery”; see Masten

et al.). This multifaceted research in child development has helped to frame conceptualizations of resilience during other phases of the life span (see Bergeman & Wallace, 1999; Ryff, Singer, Burton, & Seltzer, 2002), and it aides researchers in understanding resilience in the dementia caregiving process (which is akin to the phenomena of resilience as stress resistance).

Resilience in Dementia Caregiving

The majority of dementia caregiving research has focused on the negative aspects of care provision (see meta-analyses by Pinquart & Sörensen, 2003, and Vitaliano, Zhang, & Scanlan, 2003). Although much of this work is cross-sectional research, other studies have adopted prospective study designs in an attempt to discern how stress and negative outcomes change over time in concert with the chronic, insidious progression of dementia. Although earlier longitudinal efforts tended to adopt a “wear and tear” hypothesis in which prolonged at-home care is associated with gradually worsening outcomes such as subjective stress, depression, and nursing home placement, subsequent panel studies suggested an adaptation effect. Dementia caregivers often reported stability or even decreases over time on key caregiving outcomes (e.g., Gaugler et al., 2000). Other efforts have examined “uplifts” in caregiving, or the various benefits and psychological rewards associated with providing care to a relative suffering from dementia (e.g., Kinney & Stephens, 1989; Picot, Youngblut, & Zeller, 1997; Pinquart & Sörensen).

Taken together, these findings seem to suggest the presence of resilience, or the ability of certain caregivers to persevere in at-home caregiving roles while remaining stable or decreasing on key caregiving indicators such as burden (the emotional, social, psychological, and financial “load” of care provision) and depressive symptomatology. Although resilience appears to be present in dementia caregiving and may account for diversity in outcomes over time, few efforts have attempted to conceptualize resilience directly in dementia care. Two smaller scale descriptive studies administered self-report resilience

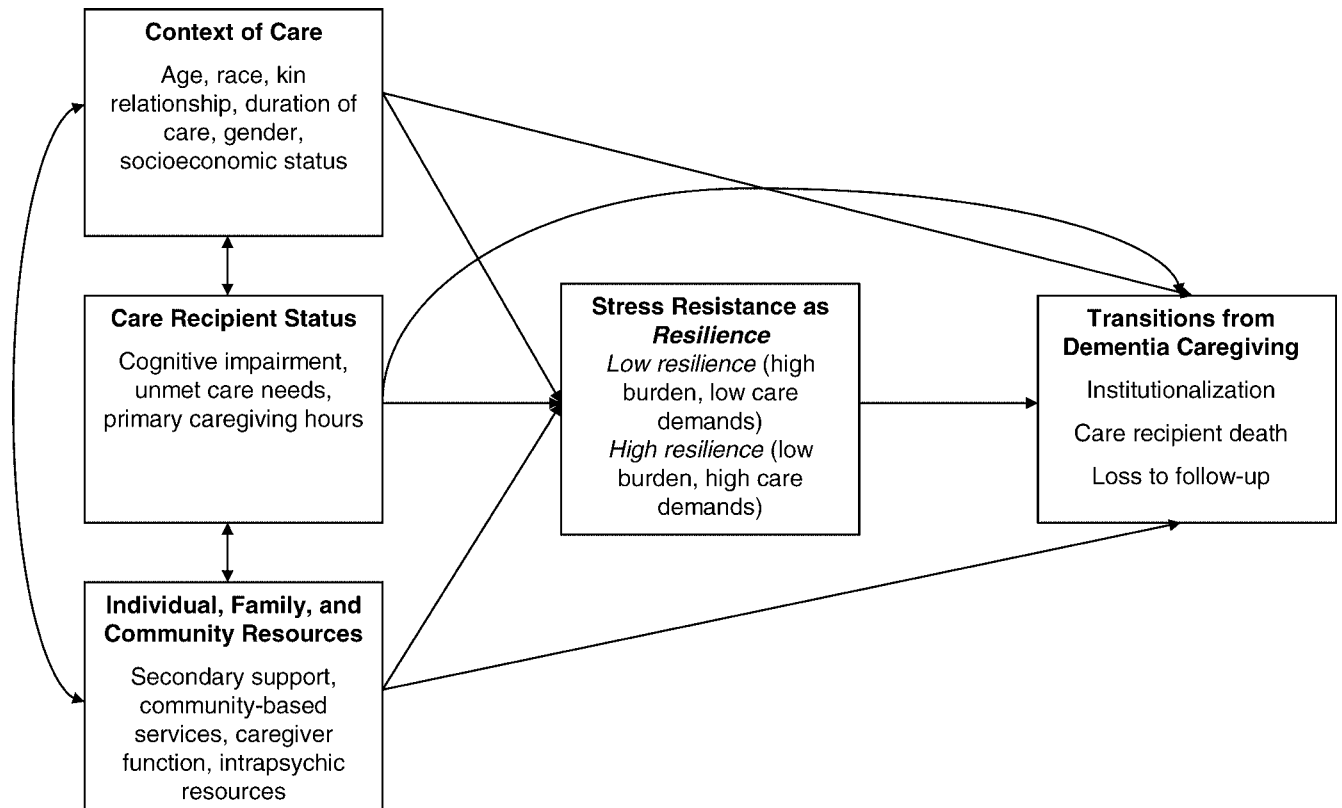


Figure 1. Conceptual model: Resilience

scales to family caregivers of relatives with Alzheimer's disease and found moderate diversity in resilience reports (Garity, 1997; Ross, Holliman, & Dixon, 2003), but whether resilience was linked to key caregiving outcomes either initially or over time was not explored.

Conceptual Model

Resilience may share some degree of conceptual overlap with similar constructs utilized in dementia caregiving. These could include mastery (or the degree to which one attributes outcomes to one's own effort or abilities; see Pearlin & Schooler, 1978), self-efficacy, internal locus of control, or learned helplessness (see Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). Other constructs that may share similarity to resilience are personality traits, such as neuroticism, that may predispose some dementia caregivers to indicate greater feelings of burden, behavior problems, or subjective ratings of health (Bookwala & Schulz, 1998; Hooker, Monahan, Bowman, Frazier, & Shifren, 1998). Resilience as we conceptualize it in this study, however, attempts to categorize caregivers' stress resistance according to perceptions of burden and care demands (i.e., behavior problems; activity of daily living, or ADL, dependencies; instrumental ADL, or IADL, dependencies) that occur directly in the context of dementia care. In this regard, the subsequent analysis advances the literature. By ascertaining how variations in emotional response (burden) to dementia-related care demands influence key outcomes (e.g., transitions in dementia caregiving, such as nursing home placement), we will be able to effectively cate-

gorize stress resistance among caregivers above and beyond more global measures of psychological resources or stress (which may or may not be derived from dementia-related care experiences, such as measures of self-efficacy or personality). Moreover, we anticipate that, unlike global measures of psychological resources that do not appear linked to key transitions such as nursing home placement in dementia caregiving (Aneshensel et al.), resilience (or stress resistance represented as various levels of reported burden and care demands) will have direct effects on these outcomes.

The conceptual model guiding the current study is based on a variant of the multidimensional resilience model proposed by Bergeman and Wallace (1999, see p. 219). At the heart of the model is the construct of resilience, which is operationally defined as various levels of perceived burden (i.e., high or low burden) in the presence of various levels of care demands (i.e., high or low care demands; see Figure 1). On the basis of a review of the gerontological and psychological literatures, we expect that those caregivers who indicate less stress resistance, or low resilience (high burden, low care demands), would be more likely to exit at-home caregiving roles than would caregivers who report high resilience (low burden, high care demands). Resilience is also influenced by three constellations of variables: context of care, status of the care recipient, and individual, family, and community resources.

Indicators of care context have variable effects on caregivers' emotional appraisals of stress as well as the manifestation of care demands (e.g., Montgomery & Williams, 2001). Caregivers who have provided at-home care for longer periods of

time, caregivers who are spouses, caregivers who live with the care recipient, caregivers who are African American or Latino (e.g., Dilworth-Anderson, Williams, & Gibson, 2002), and caregivers who are women may be more likely to indicate resilience as a result of cultural or socialized beliefs and longitudinal adaptation related to increased exposure to care demands or commitment to the caregiving role. In addition, severity of cognitive deficits and unmet needs may weaken caregivers' resilience and abilities to withstand emotional stress (Pinquart & Sörensen, 2003), thus leading to a greater likelihood of transitions from at-home dementia care. Individual, family, and community resources such as secondary support from other family members or utilization of community-based long-term care may help bolster stress resistance or resilience on the part of dementia caregivers. These resources may contribute to the maintenance of at-home care responsibilities, thus preventing or at least delaying transitions from dementia caregiving (Montgomery & Williams). It could also be expected that "intrapyschic resources," such as self-efficacy, mastery, self-esteem, or similar domains as already described, would also have important effects on stress resistance or resilience; intrapyschic processes that allow caregivers to maximize supportive relationships and accomplish important care-related tasks with perceived success may allow caregivers to reduce negative emotional appraisals of care demands (i.e., burden), even in the face of considerable functional and behavioral impairment on the part of the care recipient (Bergeman & Wallace, 1999).

The pathways between resilience, transitions from dementia caregiving, and antecedents of resilience led us to the development of the following research question: What factors are associated with resilience among dementia caregivers? We hypothesize that, when compared with the high-resilience group, dementia caregivers who indicate low resilience at baseline will be less likely to remain in their caregiving roles over a 3-year period.

METHODS

Procedure

The Medicare Alzheimer's Disease Demonstration Evaluation (MADDE) was a 3-year, randomized evaluation of expanded case management for informal caregivers of persons with Alzheimer's disease or a similar disorder (for more detail on the MADDE design, see Newcomer, Yordi, DuNah, Fox, & Wilkinson, 1999). MADDE researchers considered the caregiver to be the relative or individual who provided the most help to the care recipient at home in one of eight MADDE catchment areas (Rochester, NY; Urbana, IL; Memphis, TN; Portland, OR; Cincinnati, OH; Parkersburg, WV; Minneapolis, MN; and Miami, FL). Trained nurses and social workers administered in-person interviews to participating caregivers every 6 months over a 3-year period. Because of the lack of consistent effects of the MADDE treatment condition on institutionalization or other key caregiving outcomes (Miller, Newcomer, & Fox, 1999; Newcomer et al.), we pooled the treatment and control conditions to maximize the statistical power of subsequent analyses.

The baseline sample for our current analysis included 1,979 dementia caregivers who were classified as having high or

low resilience at baseline (see the subsequent text). During the 3-year course of the MADDE, a number of transitions from at-home care occurred, including loss to follow-up ($n = 150$), death of the care recipient ($n = 493$), and care recipient institutionalization ($n = 870$).

Measures: Resilience

As we already indicated, resilience was a classification of caregivers based on reports of burden (high or low) and frequency of care demands (high or low behavior problems, ADLs, and IADLs). MADDE researchers measured caregiver burden by using the 7-item version of the Zarit Burden Scale (Zarit, Todd, & Zarit, 1986). Responses ranged from 0 (never) to 4 (almost always) and were summed (example items include "do you feel stressed between caring for the care recipient and meeting other family responsibilities, or stressed between caring for the care recipient and having enough time for yourself; do you feel you have lost control of your life since the care recipient's illness"; baseline $\alpha = 0.87$). MADDE researchers assessed behavior problems such as asking repetitive questions, being suspicious or accusative, or wandering or getting lost on a 19-item measure (Zarit, Orr, & Zarit, 1985). Responses were either 0 (no) or 1 (yes) and were summed (baseline $\alpha = 0.77$). Caregivers indicated care recipients' functional dependence with 10 ADL tasks (e.g., bathing, dressing, eating; see Katz, Ford, Moskowitz, Jackson, & Jaffee, 1963). Responses included 0 (no difficulty), 0.5 (some difficulty), and 1 (maximum difficulty) and were summed (baseline $\alpha = 0.93$). MADDE researchers also assessed care recipient dependence on personal assistance with IADLs (e.g., preparing meals, shopping, and doing routine housework; see Lawton & Brody, 1969). Responses included 0 (no difficulty), 0.5 (some difficulty), and 1 (maximum difficulty) and were summed. The IADL measure showed strong reliability at baseline ($\alpha = 0.83$).

We coded caregivers into two different resilience categories at baseline: those caregivers who reported high care demands and low burden (high resilience), and those who indicated low care demands and high burden (low resilience). High burden was represented by the clinical criteria suggested by Bedard and colleagues (2001); we categorized those caregivers at the upper quartile or greater on a summed score of the Zarit Burden Inventory in the high-burden category (sum score of 17 or more). We initially standardized the baseline scores of behavior problems, ADLs, and IADLs to each create a uniform metric (0–1) and then summed them to construct a composite care demands score at baseline (range = 0–3). Although a clinical measurement of high behavior problems, ADLs, or IADLs has not taken place, as with burden we chose an upper quartile cutoff point on the composite care demands measure.

Measures: Covariates of Resilience

As Figure 1 demonstrates, we considered a number of variables to be potentially important predictors of resilience and transitions from dementia care. Table 1 provides baseline descriptive statistics for these indicators.

Context of care.—As shown in Table 1, the MADDE included a number of care recipient and caregiver demographic or background variables.

Table 1. Baseline Descriptive Information

Variable	<i>M (SD)</i>	%
Resilience		
Burden (range: 0.00–28.00)	15.85 (5.94)	
Behavior problems (range: 0.00–19.00)	10.02 (4.14)	
ADLs (range: 0.00–10.00)	4.97 (3.00)	
IADLs (range: 0.00–8.00)	7.13 (1.19)	
Type of resilience		
Low resilience		54.7
High resilience		45.3
Context of Care: Baseline		
Site		
Florida		17.9
Illinois		10.4
Minnesota		17.7
New York		12.0
Ohio		12.7
Oregon		9.4
Tennessee		12.1
West Virginia		7.8
Care recipient gender (female)		55.2
Race of care recipient (Caucasian)		86.3
Age of care recipient (in years)	78.66 (8.45)	
Medicaid eligible		30.9
Care recipient lived with caregiver		80.1
Experimental condition (treatment)		51.0
Caregiver gender (female)		77.8
Caregiver kin relationship (spouse)		52.6
Duration of care (in months)	47.23 (52.06)	
Caregiver age (in years)	63.32 (13.82)	
Caregiver income	5.23 (2.76)	
Caregiver employment status (employed)		29.7
Caregiver education	3.43 (1.38)	
Other Care Demands		
Mini-Mental Status Examination score (range: 0.00–30.00)	12.44 (8.75)	
Unmet care needs (range: 0.00–18.00)	3.82 (4.36)	
Primary caregiving hours	104.66 (52.88)	
Resources		
Adult day service use (days used in past 6 months)	8.37 (25.26)	
In-home help services (times used in past 6 months)	107.81 (246.25)	
Overnight hospital services used (times used in past 6 months)	3.03 (8.96)	
Secondary caregiving hours, typical week	15.92 (32.99)	
Caregiver ADLs (range: 0.00–5.00)	0.30 (0.75)	
Caregiver IADL living dependencies (range: 0.00–8.00)	0.96 (1.61)	

Notes: *SD* = standard deviation; ADL = activities of daily living; IADL = instrumental activities of daily living. For dementia caregivers, *N* = 1,979; for caregiver income, 1 = under \$4,999 and 11 = \$55,000 and above; for caregiver education, 0 = no formal schooling, 1 = elementary school, 2 = some high school, 3 = high school, 4 = some college, 5 = college graduate, and 6 = postgraduate.

Care recipient status.—Case managers administered (directly to care recipients and at baseline only) the 30-item Mini-Mental State Examination, which assesses orientation, recall, and ability to name objects (Folstein, Folstein, & McHugh, 1975; baseline $\alpha = 0.96$). We collected all other items and measures related to care recipient status in the MADDE from

caregiver reports by means of an in-person interview at baseline (see Miller et al., 1999; Newcomer et al., 1999). We considered the number of hours that caregivers typically spent providing assistance to care recipients. We also included a sum score of caregivers' unmet needs with care recipients' ADL and IADL limitations (i.e., not enough help indicated by the caregiver; baseline $\alpha = 0.87$).

Resources.—From a fixed list of options, MADDE participants recorded the services they had used in the past 6 months and how often they relied on these services. Researchers included the utilization of in-home help services (sum of chore, personal care, and companion services) and adult day services, because these services accounted for 80% of community-based long-term-care service use in the original MADDE sample. Caregivers also reported the number of times that overnight hospital services were used in the 6 months prior to the baseline interview. Researchers measured secondary caregiving hours by asking respondents how many hours per week they typically received assistance from other family members or friends in providing help to the care recipient. The MADDE also included data on caregivers' functional resources; caregivers' ADL and IADL dependencies (baseline alphas were $\alpha = 0.67$ and $\alpha = 0.81$, respectively) were summed.

Analysis

Analysis 1: Predictors of resilience.—Our objective in the first analysis was to determine what factors specified in the conceptual model (Figure 1) were associated with resilience. This analysis considered resilience at baseline (high and low) as the outcome in a logistic regression model, with the aforementioned baseline covariates included as potential predictors of resilience.

Analysis 2: Test of resilience as a predictor of transitions from dementia caregiving.—Our main objective in the second analysis was to test the hypothesis that, compared with caregivers in the high-resilience category, caregivers in the low-resilience category would be more likely to exit their at-home dementia caregiving roles. In order to achieve this study aim, we conducted a multinomial logistic regression model. Because the transition outcome in this model includes four discrete and distinct categories (care recipient remained in the community, care recipient was institutionalized, care recipient died, and caregiver or care recipient was lost to follow-up), multinomial logistic regression was an appropriate method. The independent variable of interest was baseline resilience (i.e., high vs low). Baseline covariates specified in the resilience conceptual model served as empirical controls.

RESULTS

Analysis 1: Predictors of Resilience

Table 2 presents the empirical results of the logistic regression model examining baseline predictors of resilience. We coded resilience as 0 = low resilience and 1 = high resilience. Caregivers not from the Florida site, care recipients who were women, those who had provided care for a longer

Table 2. Correlates of Baseline Resilience and Effects of Baseline Resilience on Transitions From Dementia Caregiving

Variable	Correlates of Resilience ^a	Resilience as Predictor of Transitions ^a		
		Death	NH	LTFU
Context of Care				
Florida	0.48***	1.58*	0.67*	2.07**
Care recipient gender (female)	1.78**	0.49**	0.61*	0.67
Race of care recipient (Caucasian)	0.64**	1.48*	4.23***	1.43
Age of care recipient (in years)	1.00	1.05***	1.04***	1.01
Medicaid eligible	0.78*	0.53**	3.65***	0.53*
Care recipient lived with caregiver	0.57***	0.94	0.72	1.49
Experimental condition (treatment)	1.07	0.67**	0.94	0.65*
Caregiver gender (female)	0.91	0.95	0.86	0.80
Caregiver kin relationship (spouse)	0.76	0.73	1.04	0.53
Duration of care (in months)	1.00*	0.99***	0.99***	0.98***
Caregiver age (in years)	0.99	1.01	1.02*	1.00
Caregiver income	0.93**	0.97	1.05	0.99
Caregiver employment status (employed)	0.86	0.99	1.24	1.22
Caregiver education	0.88**	0.97	0.99	0.89
Other Care Demands				
Mini-Mental Status Examination score	0.90***	0.97***	0.99	0.98
Unmet care needs	1.00	1.02	1.00	1.02
Primary caregiving hours	1.01***	1.00	1.00*	1.00
Resources				
Adult day service use	1.00	1.00	1.01**	1.01
In-home help services	1.00***	1.00	1.00	1.00
Overnight hospital services used	1.04***	1.01	1.00	1.02
Secondary caregiving hours, typical week	1.02***	1.00	1.00	1.00
Caregiver ADLs	1.05	1.49**	1.11	1.38*
Caregiver IADLs	0.89**	0.91	0.98	0.97
Resilience				
Baseline resilience (low resilience)	—	0.62**	1.87***	1.77*

Notes: NH = nursing home placement; LTFU = loss to follow-up; ADLs = activities of daily living; IADLs = instrumental activities of daily living. For dementia caregivers, $N = 1,979$ (odds ratios shown). NH = nursing home placement; LTFU = loss to follow-up; ADLs = activities of daily living; IADLs = instrumental activities of daily living

^aCox and Snell $R^2 = .29$ for correlates of resilience model; Cox and Snell pseudo $R^2 = .28$ for resilience as predictor model.

* $p < .05$; ** $p < .01$; *** $p < .01$.

duration of time, caregivers who spent more time providing care, and those who utilized greater formal and informal resources (e.g., in-home help, hospital utilization, and secondary support) were all more likely to indicate high resilience at baseline ($p < .05$). Several other characteristics were negatively associated with high resilience, including ethnicity or race (Caucasian caregivers), caregiver IADL dependencies, caregivers who lived with care recipients, greater caregiver education and income, and greater cognitive impairment of the care recipient ($p < .05$).

Analysis 2: Resilience as a Predictor of Transitions

Table 2 presents results from the multinomial logistic model analyzing the effects of baseline resilience on nursing home placement, care recipient death, and loss to follow-up during the 3-year study interval. Following control for the various resilience covariates, resilience remained a significant predictor

of transitions from dementia caregiving. Those caregivers in the low-resilience category at baseline were 0.62 times less likely than those in the high-resilience category to experience a care recipient death ($p < .01$). Alternatively, those in the low-resilience group were 1.87 and 1.77 times more likely than those in the high-resilience group to institutionalize care recipients or exit the study because of loss to follow-up, respectively ($p < .05$).

DISCUSSION

As suggested in the Bergeman and Wallace (1999) model of resilience in aging, it appears that a constellation of factors are associated with stress resistance or resilience in dementia care, including contextual, care recipient status, and resource indicators. Those caregivers who lived with disabled older relatives, assisted care recipients with greater cognitive impairments, and were suffering from IADL dependencies of their own may have faced greater challenges in managing the responsibilities associated with the caregiving role. Other findings suggested a cultural or ethnic contribution to resilience, as Caucasian caregivers were more likely to indicate low resilience than were non-Caucasian dementia caregivers. As emphasized throughout long-term-care research, African-American and Latino caregivers appear more likely to rely on informal long-term care, in part because of dependence on extended kin networks as well as cultural norms that emphasize the family care of disabled elders (e.g., Dilworth-Anderson et al., 2002). A more complex pattern emerged when we examined socioeconomic indicators; although those who were Medicaid eligible during the MADDE were more likely to indicate low resilience, caregivers of higher education and income were also more likely to be classified as low resilience. It is possible that those who have access to formal care resources (either through private-pay or publicly funded channels) may go to greater lengths to provide sustained at-home care, thus leading to greater perceptions of burden during the course of dementia.

Subsequent analyses of baseline resilience partially supported our hypothesis; individuals in the low-resilience category were more likely than those in the high-resilience category to institutionalize their care recipients and were also more likely to be lost to follow-up during the course of the 3-year study. There are various interpretations as to why resilience may operate to allow for continued at-home care provision. Although the MADDE study did not directly assess personality characteristics, the ability of dementia caregivers to tolerate behavior problems, ADL dependencies, or IADL care tasks may reflect a range of personality traits that result in greater resilience and commitment to the at-home caregiving role. Similarly, other intrinsic factors may facilitate resilience on the part of dementia caregivers, such as self-efficacy with regard to care provision or similar constructs (e.g., Gottlieb & Rooney, 2004; McClendon, Smyth, & Neundorfer, 2004) that allow caregivers to manage and adapt to behavioral problems or other stressful care demands. Success in managing and adapting to frequent and intensive care demands (by means of intrinsic or extrinsic support mechanisms) may reinforce dementia caregivers' confidence and mastery in at-home care provision, resulting in a greater commitment to family caregiving. The resilience then obtained from successful caregiving experiences may lead to delayed institutionalization or loss to follow-up.

The effect of baseline resilience on care recipient mortality was contrary to our hypothesis; caregivers in the low-resilience category were less likely than those in the high-resilience category to experience the death of a care recipient during the MADDE study. As suggested in other longitudinal dementia caregiving research, some caregivers may experience stress that is related to the bereavement transition prior to the actual death of the care recipient, caused by the chronic nature of dementia disease progression. By the time death actually occurs, there may be a sense of relief for some caregivers that the dementia experience has ended (e.g., Wells & Kendig, 1997). It could be that, as a result of this anticipation of relief, some caregivers indicated reduced burden prior to the death of the care recipient. Those caregivers who saw “no end in sight” to at-home care may have been more likely to indicate lower resilience.

An alternative explanation may be that care demands are responsible for this finding. Care recipients with higher care demands such as ADL dependency are likely to be at a later stage of dementia than are those with less functional impairment, and thus are more likely to experience mortality. Thus, care recipients with higher demands may have been more likely to experience death as a result of the staging of their dementia (e.g., those with caregivers in the high-resilience category), whereas those with lower functional impairments may have lived longer (individuals with caregivers in the low-resilience category).

There are several important limitations to note. The resilience variable is based on self-report and the willingness of the caregiver to indicate negative emotional states. This is a limitation of the data available in the MADDE study for the purposes of constructing resilience; as we subsequently discuss, future research could incorporate both intrapsychic measures of resilience (e.g., coping, mastery, and hardiness; see Bergeman & Wallace, 1999) and indicators of stress to ascertain caregivers' varying levels of stress resistance. Second, although the MADDE sample is relatively large, because of its sampling strategy it is not representative of the population of dementia caregivers in the United States (see Newcomer et al., 1999). Given its design, the MADDE study tended to include cognitively impaired clients in the later and more severe stages of dementia. In addition, given the focus on high and low resilience, the analysis reported here is based on a subsample of the overall MADDE study of dementia caregivers (see, e.g., Gaugler et al., 2003; Newcomer et al., 1999).

Overall, the findings offer several scientific and clinical contributions. The results reinforce the need to capture the potential heterogeneity of dementia caregivers when researchers are examining health outcomes or adaptation over time. The majority of existing research tends to consider caregiving samples as relatively homogeneous; while various sociodemographic characteristics, care demands, and stressors are empirically controlled, outcomes are generally estimated within an entire sample of caregivers. Creating typologies of dementia caregivers based on constructs such as resilience may enhance the ability of researchers and clinicians to project the onset of key health transitions such as nursing home placement. The measure of resilience may also aid in the targeting and tailoring of interventions. Unlike prior approaches that simply examine direct effects of burden and individual care demands, creating a composite measure of these dimensions may better inform

practitioners as to the type and timing of certain interventions. For example, caregivers experiencing low resilience may require more assistance managing the emotional and psychological upheaval associated with dementia care, whereas those in the high-resilience category may require assistance that supplements informal care provision but less help with the emotional ramifications of care. As the effectiveness of clinical and community-based interventions for dementia caregivers is mixed (e.g., Schulz et al., 2002), creating assessment tools that identify resilient caregivers by means of their adaptation to stressful aspects of the dementia caregiving situation may aid in targeting dementia caregiving interventions and in eventually delaying or preventing key health transitions such as nursing home placement. In summary, the findings emphasize the need to identify at-risk dementia caregivers with more complex classification approaches as opposed to studies that examine the direct effects of care demands and stress with little acknowledgement of the diversity within existing samples.

The results from the current study also raise a number of intriguing conceptual issues, particularly when we consider how resilience operates throughout the dementia caregiving career. It is important to acknowledge that the data available for the current study did not include direct measurements of key intrinsic factors likely associated with resilience, such as mastery, hardiness, or caregiver self-efficacy (see, e.g., Bergeman & Wallace, 1999). This led us to examine resilience as stress resistance, which indicated patterns of change in dementia caregivers' emotional response to various levels of care demands. However, intrinsic measures may suggest that resilience in dementia caregiving is part of a dynamic self-regulatory process that is influenced by the occurrence of different environmental stressors and is also composed of a series of intrapsychic dimensions that may or may not respond to changes in care-related stressors over time. Other research on personality and its influence on key caregiving domains such as social support and mental health have charted similar directions for future research on informal long-term care (Bookwala & Schulz, 1998; Hooker et al., 1998; Jang, Clay, Roth, Haley, & Mittelman, 2004). In addition to these descriptive research efforts, conceptual models that incorporate both intrapsychic domains and stress-resistance approaches may inform clinical interventions for dementia caregivers. Instead of attempting to change behaviors related to care provision by means of manualized approaches, psychosocial interventions that are tailored to the care histories, self-concepts, and social support networks of individual caregivers may prove most successful; in this manner, “goodness of fit” could be achieved that maximizes the individual and environmental resources of each caregiver (Bergeman & Wallace). The incorporation of intrinsic factors related to stress would help researchers understand the processes linked to resilience throughout the dementia caregiving career and may further their conceptualizations of how and why some families appear to adapt to care-related stress whereas others relinquish their roles.

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