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Premorbid Relationship Satisfaction and Caregiver Burden in Dementia Caregivers

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Abstract

Dementia caregiver appraisal of the quality of their current and premorbid relationship with the care recipient is associated with caregiving behaviors, caregiver mood, and the decision to end home care. This study examined the contribution of premorbid relationship satisfaction to caregiver burden in dementia caregivers. Live-in dementia caregivers (n = 72) completed several psychosocial measures. Caregiver responses were used to divide them into low premorbid relationship satisfaction group (low) versus high premorbid relationship satisfaction group (high). Results indicate that premorbid relationship satisfaction is negatively associated with caregiver burden and quality of family functioning. Caregivers with high satisfaction demonstrated significantly less burden and less reactivity to memory and behavior problems, and better problem solving skills and more effective communication compared with the low caregivers. Findings are independent of length of caregiving, disease severity, care recipient daily functioning, and relationship type. Relationship satisfaction may be an important contributor to caregiver burden.

Keywords

Alzheimer's Disease; Dementia; Caregiver; Relationship Satisfaction; Burden

Introduction

Alzheimer's disease and related disorders are significant health problems in older adults, affecting approximately 30 to 40% of the population aged 85 or older^{1,2}. The majority of dementia patients are cared for at home by family members, including both spouses and adult children^{3,4}. Providing care for an individual with dementia is associated with significant emotional and physical health consequences. For example, depression, anxiety, decrement of physical health, and mortality are consequences of high burden among dementia caregivers⁵. Care-recipient outcomes, such as institutionalization, are also linked with caregiver burden. Higher levels of burden in caregivers are associated with the desire to institutionalize⁶ and actual institutionalization⁷ compared with those intending to maintain home care.

Caregiver appraisals about the caregiver process and the care recipient may be more important predictors of caregiver burden and depression than objective measures of disease severity and

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actual physical care provided. For example, caregiver perceptions of current problems, satisfaction and amount of social support, available resources, coping skills, and feelings of self-efficacy all predict caregiver depression and perceived burden^{8, 9, 10, 11, 12}. Similarly, family functioning and current relationship quality contribute to caregiver burden^{13,14,15, 16}. In addition, caregivers' appraisals of their relationship with the care recipient prior to the onset of dementia contribute to caregiver stress and caregiver report of patient behaviors. For example, caregiver report of prior low marital intimacy¹⁷ and unresolved longstanding interpersonal problems¹⁸ are associated with increased caregiver burden. Similarly among both spouses and adult children, caregiver report of an emotionally distant relationship with the care recipient is associated with greater caregiver burden, but not depression¹⁹. Caregivers' perception of the premorbid relationship as problematic is also associated with caregivers reporting the patient's symptoms as more extensive and severe than objective measures would suggest²⁰. Furthermore, spouses' negative appraisal of the quality of the premorbid relationship predicts caregiver depression and potentially abusive behaviors²¹. Finally, caregiver perceptions of a more troubled premorbid caregiver-recipient relationship predicts patient aggression and contributes to caregivers' decision to discontinue home care⁷.

Although many dementia caregiver-recipient relationship variables have emerged as possible factors affecting caregiver outcomes, a methodology for quantifying premorbid relationship satisfaction is lacking. The current study examined the contribution of premorbid relationship satisfaction (PRS) on caregiver burden among both spouse and adult child dementia caregivers.

Method

Participants

Participants were 72 caregivers (spouse or adult child) of patients with mild to moderate dementia who completed baseline assessment measures as part of a longitudinal caregiver intervention study. Caregivers were recruited from memory disorder clinics, support groups, and newspaper/television advertisements in the Providence, Rhode Island region. For inclusion, caregivers were required to reside with the care recipient and to provide at least 4 hours of daily care for a minimum of 6 months. Etiology of dementia in care recipients included: probable Alzheimer's disease (n=42), vascular dementia (n=4), mixed dementia (n=4), frontotemporal dementia (n=5), diffuse lewy body disease (n=4), Parkinson's dementia (n=3), hydrocephalus (n=2), progressive supranuclear palsy (n=1), dementia NOS (n=2), and unknown (n = 5). Dementia severity was determined by total sum of boxes of the Clinical Dementia Rating scale (CDR)²². See Table 1 for further description of sample characteristics.

Instruments and Procedures

Burns Relationship Satisfaction Scale (BRSS)²³—The BRSS is a seven-item self-report inventory that assesses satisfaction in various areas of the relationship, characterizes the degree of relationship satisfaction, including communication and openness, conflict resolution, degree of caring and affection, intimacy and closeness, satisfaction with roles in relationship, and overall relationship satisfaction. Respondents indicate their degree of satisfaction in each of these areas on a scale from 0 (very dissatisfied) to 6 (very satisfied). Total scores are the sum of items and range from 0–42, with higher scores reflecting greater satisfaction. Internal consistency for the scale is high (coefficient alpha = .94) and is strongly correlated with other measures of relationship satisfaction, including the Locke-Wallace MAT (r=.80)²³ and both the Dyadic Adjustment Scale (r = -.89) and Norton's Quality of Marriage Index (r = .91)²⁴. Total scores range from 0 (lack of in intimacy, extreme conflict) to 42 (highest level of satisfaction). The instructions were modified for the current study by asking caregivers to rate the amount of satisfaction felt in their relationship with the care recipient prior to the onset of dementia.

Other Measures

Activities of Daily Living Questionnaire (ADL)²⁵—The caregiver completed this 14-item, self-report questionnaire. This instrument measures degree of independence in basic (e.g., dressing and grooming) and instrumental (e.g., medication and financial management) daily activities. Each item is scored on a 3-point scale, reflecting independence, the need for assistance, or dependence. Total scores range from 0 to 28, with higher scores reflecting greater functioning independence.

Burden Interview (ZBI)²⁶—The ZBI is a 22-item, self report measure of perceived burden. The instrument measures caregivers' psychological health, emotional, well-being, social and family life, finances, and degree of control over one's life. Each question is scored on a 5-point Likert scale. Total scores range from 0 (low burden) to 88 (high burden).

Revised Memory and Behavior Problem Checklist (RMBPC)²⁷—This 24-item checklist requires caregivers to rate the frequency of problem behaviors and memory difficulties in patients during the previous week. In addition, caregivers rate their own reaction to each of the behavior problems. Ratings are made on a 5-point scale for frequency of behavior problems (0 = never occurred to 4 = occurs daily or more often) and reactions to these problems (0 = not at all bothered/upset to 4 = extremely). Higher scores reflect higher levels of perceived caregiver burden. The scale has good reliability (alpha = .84 for patient behavior, .90 for caregiver reaction) and validity²⁶.

Family Assessment Device (FAD)²⁸ is a 60-item self-report questionnaire designed to assess the six dimensions of the McMaster Model of Family Functioning, including problem-solving, communication, roles, affective responsiveness, affective involvement, behavioral control, and general functioning. Psychometric properties of the scale support its reliability and validity in psychiatric, medical, and nonclinical samples²⁹. Caregivers were asked to rate statements about their families along a 4-point likert scale from strongly disagree to strongly agree. It was emphasized to caregivers to answer according to their perceptions of their family.

Statistical Analyses

Prior to analyses, Komogorov-Smirnov (K-S) testing with lilliefors' correction was used to check for normal distribution of the variables. The BRSS was positively skewed with the majority of caregivers reporting some degree of satisfaction with their relationship. The other variables, including the ZBI, RMBPC (frequency and reaction), ADL, and most subscales on the FAD were normally distributed with the exception of behavior control which was positively skewed, $p < .05$. Bivariate correlations were conducted to examine the nature of the relationship between PRS and caregiver burden. Partial correlation was used to examine the unique contribution of PRS to caregiver burden after controlling for disease severity variables. Independent samples t-tests were used to examine group differences between LPRS and HPRS and three groups of variables: caregiver (i.e., burden, length of care and reaction to care recipient memory/behavior problems), care-recipient (i.e., activities of daily living and dementia severity and family functioning factors (i.e., communication and problem solving). A chi-square analysis was conducted to investigate group-differences between relationship type (i.e., spouse vs. adult child) and amount of PRS.

Results

Relationship between PRS and caregiver burden

PRS was negatively associated with caregiver burden ($r = -.38$, $p = .001$) in that poorer relationship satisfaction was associated with greater burden. Activity of daily living impairment (ADL total score) and frequency of memory and behavior problems were

correlated with caregiver burden ($r = -.25, p = .03$; $r = .47, p < .001$). Overall disease severity (CDR total score) was not related to caregiver burden ($r = .19, p = .11$). Of these variables, only frequency of memory and behavioral problems was related to caregiver report of PRS ($r = -.39, p < .01$). To examine the unique contribution of PRS to burden, a partial correlation between scores on the BRSS and ZBI removing variance associated with disease severity (CDR box score), ADL impairment (ADL total score), and frequency of memory and behavior problems (RMBPC total score) was calculated. Findings showed a statistically significant relationship, even after controlling for possible contributing variables ($p_r = -.30, p = .01$).

HPRS vs. LPRS group differences

On average, caregivers reported relatively high levels of PRS. Overall group mean score on the BRSS was 34.56 (SD=9.83, range = 6–48), suggesting that the majority of the sample was generally satisfied with their previous relationships. In order to further examine the impact of poor perceived relationship status on caregiver burden, caregivers were divided into 2 groups. Those reporting low relationship satisfaction (i.e., BRSS \leq 35) were included in the “Low Premorbid Relationship Satisfaction” group (LPRS); those reporting high relationship satisfaction (i.e., BRSS \geq 35) were included in the “High Premorbid Relationship Satisfaction” group (HPRS). This cutoff was selected as individuals scoring below 35 are common among those with troubled relationships³⁰, and this cutoff allowed us to examine caregivers with some degree of satisfaction with the relationship versus those with some degree of dissatisfaction.

Caregivers endorsing HPRS ($n = 45$) reported less burden $t(70) = 2.46, p < .02$; less reactivity to memory and behavior problems $t(70) = 2.63, p < .01$; better problem solving $t(70) = 3.36, p < .001$; and more effective communication $t(70) = 2.39, p < .001$, compared to those endorsing LPRS ($n = 27$). Groups did not differ in caregiver age $t(70) = -1.34, p = .18$, care recipient age $t(70) = -.54, p = .59$, caregiving length $t(69) = .51, p = .61$, dementia severity $t(70) = -1.62, p = .11$, or patient ADL's $t(70) = 1.36, p = .18$. (see Table 2). No significant difference emerged between relationship type (spouse versus child) and PRS, $X^2(1, N = 72) = .56, p = .45$.

Discussion

In the current study, dementia caregivers as a group reported relatively high levels of premorbid relationship satisfaction (“somewhat satisfied on average”). Caregivers’ report of relationship satisfaction is only slightly lower than other studies investigating relationship satisfaction in a community sample of couples and in a sample of patients presenting for outpatient treatment of depression^{24,31}. No studies to date have examined relationship satisfaction in dementia caregivers, so it is difficult to determine the degree to which our sample is representative of dementia caregivers in general.

The current findings suggest that premorbid relationship satisfaction is associated with caregiver burden, such that less satisfaction may negatively affect caregivers’ reaction to patients’ behavior, communication and problem solving skills. Furthermore, this relationship remains after controlling for disease severity, ADL impairment, and frequency of memory and behavior problems in the care recipient. Caregivers with retrospective reports of low premorbid relationship satisfaction perceived greater burden than caregivers with retrospective reports of high premorbid relationship satisfaction. We also found that caregivers with less premorbid relationship satisfaction were more likely to negatively react to patients’ behavior and have strained communication and problem solving skills. These findings are independent of relationship type and are consistent with previous findings related to spousal caregiver-recipient relationships^{17,18,19}.

Our findings are consistent with other studies demonstrating a relationship between family functioning characteristics and caregiver burden^{13,15}, as other studies demonstrating a relationship between interpersonal variables and measures of caregiver stress^{17, 18, 19}. Our results, however, augment existing knowledge of family functioning and caregiver burden by assessing the nature of the caregiver/care-recipient relationship before the illness and its affect on perceived caregiver burden. It is plausible that our findings reflect a level of family dysfunction that is at greater risk for poor caregiver/care-recipient outcomes, though longitudinal studies further investigating the nature of these relationships may be helpful in determining this premise. Obviously, our findings do not address the direction of the relationship and are limited by the fact that we are studying retrospective caregiver report of relationship satisfaction which could be biased by current emotional distress. At this juncture, we still cannot determine whether low premorbid relationship satisfaction results in greater caregiver burden or if increased burden affects retrospective reports of premorbid relationship satisfaction.

Nevertheless, these results emphasize the potential value of considering quality of premorbid relationship factors in caregiver assessment and intervention. Taken together, these findings suggest premorbid relationship satisfaction may be an important contributor to caregiver burden. This is encouraging, as caregiver interventions that address specific attitudes and behaviors that may have contributed to PRS may be appropriate targets for caregiver interventions. Modifying caregivers' perceptions, attributions, and behaviors as they relate to longstanding relationship characteristics may positively impact the current relationship and thereby reduce caregivers' perceptions of burden and stress.

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Table 1

Sample Characteristics

		LPRS n = 27		HPRS n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Months of Caregiving	42.44	33.18	37.98	37.24	
Caregiver Age	63.41	10.66	64.93	12.30	
Care Recipient Age	75.26	9.42	78.43	9.41	
		% of LPRS Group N (%)		% of HPRS Group N (%)	
Caregiver Gender	Female	21 (78)		35 (78)	
	Male	6 (22)		10 (22)	
Relationship	Spouse	18 (67)		26 (58)	
	Child	9 (33)		19 (42)	
Caregiver Race	Caucasian	25 (93)		44 (98)	
	African Am	0 (0)		1 (2)	
	Native Am	1 (3)		0 (0)	
	Latin Am	1 (4)		0 (0)	

Note. LPRS = Low Premorbid Relationship Satisfaction; HPRS = High Premorbid Relationship Satisfaction

Table 2
Mean Scores for Caregivers Reporting Low Versus High Premorbid Relationship Satisfaction

	<u>M</u>	<u>LPRS</u> n = 27	<u>SD</u>	<u>M</u>	<u>HPRS</u> n=45	<u>SD</u>
<u>Caregiver Variables</u>						
ZBI ^a	40.85		16.84	31.16		15.82
RMBPC: Reaction ^b	25.37		15.73	16.80		11.77
<u>Care Recipient Variables</u>						
ADLs	14.19		5.83	12.11		6.54
Dementia Severity (CDR Sum of Boxes)	6.39		2.47	7.51		3.04
<u>Family Relationship Variables (higher values indicate greater dysfunction)</u>						
FAD: Problem Solving ^c	2.19		.46	1.86		.37
FAD: Communication ^c	2.34		.43	2.11		.38

Note. LPRS = Low Premorbid Relationship Satisfaction; HPRS = High Premorbid Relationship Satisfaction; ZBI = Zarit Burden Interview; RMBPC = Revised Memory and Behavior Problems Checklist-Reaction; ADL = Activities of Daily Living; FAD = Family Assessment Device;

^a denotes LPRS different from HPRS, significant at $p = .02$;

^b denotes LPRS different from HPRS, significant at $p = .01$;

^c denotes LPRS different from HPRS, significant at $p = .001$.