

Investigating the Effects of Communication Problems on Caregiver Burden

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Objectives. The goal of this study was to explore the relationship between communication problems associated with dementia and caregiver burden, within the context of problem behaviors and cognitive and functional abilities of the care recipient.

Methods. A scale on communication problems associated with dementia was developed and administered to 89 family caregivers. Participants also completed measures of care-recipient cognitive and functional status, problem behavior, and caregiver burden (demand, stress, and objective burden).

Results. Analyses using structural equation modeling showed that care-recipient cognitive and functional status indirectly predicted problem behaviors via communication problems. The status indicators also directly predicted demand burden. In addition, problem behaviors mediated the relationship between communication problems and all forms of burden.

Discussion. The study findings not only lend further support to the existing literature that has documented problem behaviors as strong predictors of burden but also emphasize the importance of communication problems in the caregiving process.

CARING for a relative with dementia has a profound impact on family caregivers, with >80% reporting high levels of stress or burden (Alzheimer's Association and National Alliance for Caregiving, 2000). According to Montgomery, Borgatta, and Borgatta (2000), caregiver burden may be defined as the perceived impact of care tasks on caregivers' emotions and on their resources. They identified three dimensions of burden: subjective demand burden, subjective stress burden, and objective burden. Subjective demand burden refers to the extent to which the care recipient is perceived to be manipulative, whereas subjective stress burden involves the perceived level of emotional strain. Objective burden refers to felt imposition of caregiving activities on observable aspects of one's life, such as time for personal activities and privacy.

Because burden has been linked to negative health outcomes for caregivers and increased institutionalization of care recipients, substantial research has attempted to identify the factors that contribute to it (Schulz, O'Brien, Bookwala, & Fleissner, 1995). Disease progression (i.e., care recipient's cognitive ability and functional status) and problem behaviors of the care recipient have been the factors most frequently investigated (Pinquart & Sörensen, 2003). Although problem behaviors have been strongly tied to measures of subjective burden (Bédard, Pedlar, Martin, Mallott, & Stones, 2000), results have been inconclusive regarding the relationship between disease progression and all forms of burden (Chappell & Penning, 1996; Pruchno & Resch, 1989) and between problem behaviors and disease progression (Aneshensel, Pearlin, Mullan, Zarit, & Whitlach, 1995). The goal of this study was to examine communication problems as a plausible link between disease progression, problem behaviors, and burden.

DEMENTIA AS A COMMUNICATION DISORDER

Although diminished ability to communicate is one of the most noticeable dementia-related declines (Burgio, Allen-

Burge, Stevens, Davis, & Marson, 2000), communication problems have not been investigated systematically in relation to burden. Communicative declines in dementia affect primarily the semantic and pragmatic levels of language processing (Kempler, 1991). Semantics and pragmatics are not independent levels of language processing but work together in enabling communication. Semantics involve language content, specifically words and their meanings, whereas pragmatics go beyond word and sentence levels and concern how language is adapted to the situation (Boone & Plante, 1993).

Semantic problems include word-finding and naming difficulties, word comprehension, semantic paraphasia (choosing wrong words), empty speech (using ambiguous referents), neologisms (inventing words), and loss of verbal fluency (Bayles & Kaszniak, 1987). Examples of pragmatic problems are talking too much at inappropriate times, digressing from the topic of a conversation, repeating ideas, speaking too loudly, using embarrassing words (e.g., swearing), and talking at inappropriate times (Mentis, Briggs-Whittaker, & Gramigna, 1995; Powell, Hale, & Bayer, 1995; Santo Pietro & Ostuni, 1997).

Although distinct lists of semantic and pragmatic communication problems in dementia can be constructed, previous research findings suggest that the two levels of processing are interdependent. For instance, semantic problems in word finding and naming may contribute to pragmatic problems in maintaining the topic of a conversation (Ripich, 1994). In other cases, the social situation combined with semantic problems in language processing may overwhelm the cognitive ability of persons with dementia and result in pragmatic problems such as shouting or swearing (Mace & Rabins, 1981).

COMMUNICATION PROBLEMS AND CAREGIVER BURDEN

In self-reports, family members caring for relatives with dementia indicated that communication breakdowns were problematic and often led to declines in the quality of their

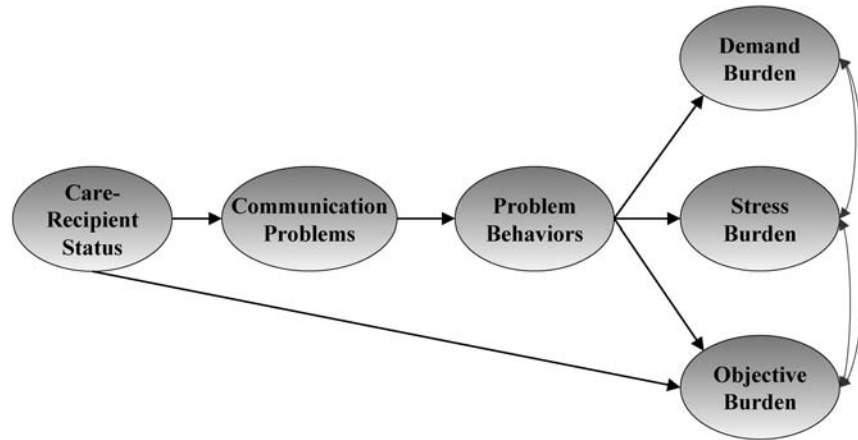


Figure 1. Hypothesized model.

interaction and relationship (Orange, 1991; Rabins, Mace, & Lucas, 1982). It is also the case that intervention protocols aimed at reducing caregiver stress have targeted communication behaviors that have been reported as stressful by caregivers (e.g., repetitive questions) (Bourgeois, Burgio, Schulz, Beach, & Palmer, 1997). Whereas the role of diminished communication skills as a factor leading to caregiver burden has been recognized by both caregivers and researchers, the contributions of communication problems to burden have been examined only tangentially, as part of a larger, diverse set of problem behaviors (Vitaliano, Young, & Russo, 1991b). Because communication problems may operate as a distinct stressor influencing caregiver burden, a better knowledge of the unique relationship between burden and communication problems may clarify the influence of disease progression and problem behaviors on caregiver burden.

IMPACT OF DISEASE PROGRESSION AND PROBLEM BEHAVIOR ON CAREGIVER BURDEN

Previous research findings have been inconclusive regarding the relationship between disease progression and both forms of burden (Chappell & Penning, 1996). Although some studies have found a small bivariate relationship between care-recipient status and subjective burden in early stages of dementia (Kinney & Stephens, 1989; Vitaliano, Russo, Young, Becker, & Maiuro, 1991a), that relationship has not been documented for caregiving dyads in later stages (Aneshensel et al., 1995). Similarly, investigators have noted an absence of a significant relationship between burden and measures of cognitive and functional abilities when problem behaviors are included in the analyses (Pinquart & Sörensen, 2003; cf. Chappell & Penning, 1996). Still other studies reveal that lower functional status, but not necessarily cognitive status, of the care recipient predicts objective burden (Gallant & Connell, 1997; Vitaliano et al., 1991a). Similarly, a linear relationship has not been documented between disease progression and problem behaviors (Aneshensel et al., 1995; McCarty et al., 2000). Consequently, the erratic nature of problem behaviors may influence caregivers' experience of burden.

PROBLEM BEHAVIOR AND CAREGIVER BURDEN

In contrast to the inconsistent findings pertaining to the impact of disease progression on burden and on problem be-

haviors, the link between these two outcome variables is more fully understood. Problem behaviors of care recipients, such as agitation, restlessness, and wandering, are distressing for caregivers and have been consistently and strongly associated with subjective burden (Bédard et al., 2000; Pinquart & Sörensen, 2003). Additionally, problem behaviors have a significant, albeit weaker, relationship to objective burden (Kosberg, Cairl, & Keller, 1990). What remain to be better understood are factors that prompt problem behaviors.

COMMUNICATION PROBLEMS AS A CRITICAL MEDIATING LINK

Several researchers have suggested that communication problems, which have been linked to declining cognitive abilities (Bayles, Tomoda, & Trösset, 1992), may trigger problem behaviors (Bourgeois, 2002; Burgio et al., 2000). These scholars propose that as communication problems increase with disease progression, they present more opportunities for breakdowns and frustration for caregivers and care recipients (Orange, 1991; Ripich, 1994). Care recipients may respond to these communication breakdowns with problem behaviors (e.g., aggression) (Murray, Schneider, Banerjee, & Mann, 1999). In turn, the problem behaviors contribute to emotional strain for caregivers (measured as subjective burden) and time demands (measured as objective burden). In other words, disease progression may lead indirectly to problem behaviors through its relationship to care-recipient communication problems. Likewise, communication problems may not increase subjective and objective burden directly, but only when the communication difficulties also lead to problem behaviors.

PURPOSE OF STUDY

Interactions between caregivers and care recipients define the daily experience of caregiving and are strongly influenced by the care recipient's abilities and disabilities. Examining communication problems as a distinct stressor may clarify inconsistencies in prior research concerned with the relationship between disease progression and caregiver burden, as well as the interrelationships among disease progression and problem behaviors to burden. In this study, we tested a model that hypothesized communication problems to be a mediating factor. The model in Figure 1 advances three hypotheses: Communication problems will mediate the relationship

Table 1. Description of the Sample

	Caregiver (N = 89)	Relative With Dementia (N = 89)
Average age and range	62.70 (31–94 years)	81.06 (60–95 years)
Gender		
Male	29 (31.5%)	28 (32.6%)
Female	60 (68.5%)	61 (67.4%)
Relationship of CG to REL		
Husband	16 (16.9%)	
Wife	16 (19.1%)	
Son	10 (11.2%)	
Daughter	37 (41.6%)	
Daughter-in-law	5 (5.6%)	
Other	5 (5.6%)	
Marital status		
Single	9 (10.1%)	2 (2.2%)
Married	69 (77.5%)	44 (49.4%)
Widowed	5 (5.6%)	42 (47.2%)
Other	6 (6.7%)	1 (1.1%)
Ethnicity		
White	67 (75.3%)	69 (77.5%)
African American	14 (15.7%)	14 (15.7%)
Hispanic	6 (9.7%)	5 (5.6%)
Other	2 (2.2%)	1 (1.1%)
CG education		
No high school	3 (3.4%)	
Some completed high school	30 (34.1%)	
Some college/ vocational school	34 (38.6%)	
College graduate	9 (10.2%)	
Post graduate	12 (13.6%)	
Employment		
Full-time	24 (27.0%)	
Part-time	8 (9.0%)	
Fully retired	31 (34.8%)	
Homemaker	13 (14.6%)	
Retired by working part-time	3 (3.4%)	
Other	10 (11.2%)	

Notes: CG = caregiver; REL = relative.

between care-recipient status (cognitive and functional abilities) and problem behaviors; problem behaviors will mediate the relationship between communication problems and all forms of burden; and communication problems and problem behaviors will fully mediate the relationship between care-recipient status and subjective (demand and stress) burden but only partially mediate the relationship between care-recipient status and objective burden.

METHODS

Participants and Procedure

Participants were 89 caregivers involved in a national demonstration program that provided case management, respite care, and educational programs. As part of an ongoing evaluation, complete data were collected for 2,265 caregivers over a 4-year period (Montgomery, 2002; Montgomery, Kosloski, & Holley, 2003). The 89 caregivers included in this analysis were

Table 2. Communication Problems Scale

Semantic Communication Problems
Takes a long time to recall names of places.
Pauses for a long time when remembering people's names.
Uses vague words like "thing" or "it" instead of using the correct name of a person, place, or thing.
Has difficulty naming objects.
Uses many pauses.
Uses the wrong names for places.
Starts to talk, stops, then starts again.
Drifts from the point.
Pragmatic Communication Problems
Speaks too loudly.
Uses embarrassing words.
Changes the subject inappropriately.
Makes up his/her own words.
Talks at inappropriate times.
Tells the same story or piece of information a number of times.
Asks the same question over and over.

Notes: Together these items constitute the latent construct of communication problems. Each of the communication problem parcels for the structural equation modeling included both semantic and pragmatic problem items.

enrolled in the demonstration projects in Michigan, Oregon, Florida, and the District of Columbia between June 2001 and September 2002 and agreed to participate in a pilot study focused on communication. Trained interviewers administered measures of care recipient's cognitive and functional status, problem behaviors, and burden. A communication problems inventory, developed for this study, was added to the interviews. Less than 1% of data was missing in this study. Expectation maximization was used to impute the missing values (Dempster, Laird, & Rubin, 1977). Table 1 provides descriptive data on the sample in this study. The average age of caregivers was 62.7 years, and a little over two-thirds were female. Daughters (41.6%) composed the largest proportion of caregivers, followed by spouses (36%). Sons and daughters-in-law were also represented in the sample. The average age of the elderly relatives with dementia was 81 years. A little over two-thirds of relatives were female. All elderly relatives were living in the community.

Measures

Communication problems.—Communication problems were measured with a 16-item inventory that was created by adapting items from previous research on communication and language problems in dementia (Powell et al., 1995; Santo Pietro & Ostuni, 1997). Caregivers were asked to report how frequently each of 16 communication behaviors occurred in interactions with their relative by using a 5-point response set that ranged from 1 (never) to 5 (always). As shown in Table 2, both semantic and pragmatic problems were represented in the scale. The internal consistency of the 16 problem items was .88.

Cognitive status.—An eight-item inventory created by Pearlin and colleagues (Pearlin, Mullan, Semple, & Skaff, 1990) was used to assess cognitive status. The 5-point response set used in the original inventory was recoded to reflect a range from 1 to 5, with higher numbers representing higher cognitive ability. Specifically, caregivers rated the level of difficulty (1 = can't do at all; 5 = not at all difficult) that care recipients had in

Table 3. Loadings and Distributional Statistics of Measured Indicators in Model

Variable	Standardized		<i>M</i> (Observed)	<i>SD</i> (Observed)
	Lambda (λ) Loadings	Communality (h^2)		
Care-recipient status				
Cognitive ability	.89	.79	2.82	.87
Functional ability	.87	.75	2.31	1.03
Communication problems				
CommA	.74	.55	2.67	.74
CommB	.92	.85	3.03	.80
CommC	.87	.75	3.07	.70
Problem behavior				
PB1	.88	.77	1.29	1.18
PB2	.85	.73	1.22	1.05
Demand burden				
Demand1	.70	.49	3.17	.55
Demand2	.78	.61	3.15	.56
Stress burden				
Stress1	.81	.66	3.69	.71
Stress2	.84	.70	3.70	.73
Objective burden				
Obj1	.91	.84	3.75	.74
Obj2	.92	.84	3.69	.80

Note: All variables are mean scores.

remembering recent events, knowing what day of the week it was, and recognizing people s/he knows. This measure has been shown to be strongly correlated ($r = .65$) with Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975) scores (Pearlin et al., 1990) and was chosen because it is designed for use by caregivers. Two items that overlapped with the communication problems inventory (“speak sentences” and “remember words”) were excluded from the analysis. Cronbach’s coefficient alpha for this study was .84.

Functional status.—Five items from the Katz Activities of Daily Living (ADL) Scale (Katz, 1983) and seven from the Instrumental Activities of Daily Living (IADL) Scale (Lawton & Brody, 1969) were used to measure functional status. Spector and Fleishman (1998) showed that ADL and IADL items could be combined to represent an overall measure of functional ability. Participants chose a number from 1 (always) to 5 (never) that best described how often their relative needed assistance with ADL and IADL tasks. The internal consistency of the functional status scale for this study was .93.

Problem behaviors.—The Problem Behavior (PB) Scale includes 15 items measuring difficult behaviors exhibited by people with dementia as well as the work such behaviors require on the part of the caregiver (Pearlin et al., 1990). The PB Scale asks how frequently, in terms of days in a week, the caregiver deals with the problematic behavior, with response categories ranging from 0 (no day) to 7 (7 days). Examples include number of days the care recipient became restless, suspicious, and irritable. Two items that overlapped with items in the communication problems measure (“repeat questions/stories” and “swear or use foul language”) were excluded from the analysis. The internal consistency of this measure for this study was .80.

Caregiver burden.—The burden measure developed by Montgomery and colleagues (2000) was used to measure demand, stress, and objective burden. The inventory asks respondents to select a number from 1 (a lot less) to 5 (a lot more) to indicate whether the amount of each of the aspects of their life or relationships has changed because of caregiving activities.

Demand burden.—Demand burden measures the extent to which the caregiver perceives requests made by their relative with dementia to be excessive or unreasonable. Examples include “attempts by your relative to manipulate you” and “feelings that you are being taken advantage of by your relative.” For the total sample of 2,265 caregivers from which the 89 cases were drawn, the reliability was .79 (Montgomery et al., 2003). For this sample of 89 caregivers, the reliability was .61, which is lower than in previous publications reporting reliabilities ranging from .79 to .88 (see Montgomery et al., 2000).

Stress burden.—The stress dimension captures the affect component of caregiver burden. Examples include “stress in your relationship with your relative” and “tension in your life.” The internal consistency was .79 in this study.

Objective burden.—Objective burden involves the extent to which the demands of caregiving infringe on the caregiver’s time for self and others. Examples include “time to yourself” and “time for friends and other relatives.” All items were recoded so that higher scores indicated greater objective burden. The internal consistency of the measure was .90.

Analyses

To test the relationships in the hypothesized model, structural equation modeling (SEM) analyses were conducted using LISREL 8.54 (du Toit & du Toit, 2001). SEM was chosen over measured variable path analysis because it corrects for measurement error, allows the investigation of complex models, and enables tests of direct and indirect effects.

Measurement model.—Prior to testing whether the hypothesized structural model fit the data, the measurement properties of the latent constructs were examined. The variances of all constructs in the model were set to 1.0, thereby standardizing the scale. With the exception of the new communication problems scale, all other measures have demonstrated adequate reliability and validity in previous studies (Aneshensel et al., 1995; Montgomery et al., 2000; Pearlin et al., 1990). As such, the latent construct for communication problems was composed of three measured indicators using domain representative parceling, where items from semantic and pragmatic dimensions were included in each parcel (Kishton & Widaman, 1994). All other latent constructs were composed of two measured indicators with equated loadings to identify the construct. Mean scale scores for cognitive ability and functional ability were used as indicators of care-recipient status. All measured indicators for the remaining latent constructs were composed of the mean of two random parcels.

Table 3 presents the factor loadings and distributional statistics of the measured indicators in the hypothesized model. All indicators loaded significantly on their respective latent factors, with standardized loadings ranging from .70 to .92. The

Table 4. Correlations Among the Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Cognitive ability	1.00											
2. Functional ability	0.77**	1.00										
3. CommA	-0.36**	-0.33**	1.00									
4. CommB	-0.42**	-0.36**	0.68**	1.00								
5. CommC	-0.33**	-0.35**	0.64**	0.80**	1.00							
6. PB1	-0.23*	-0.33**	0.42**	0.46**	0.41**	1.00						
7. PB2	-0.18	-0.24*	0.28**	0.29**	0.32**	0.75**	1.00					
8. Demand1	0.17	0.13	0.00	0.07	0.11	0.16	0.30**	1.00				
9. Demand2	0.17	0.07	-0.09	0.02	-0.03	0.09	0.20	0.53**	1.00			
10. Stress1	-0.15	-0.21*	0.23*	0.19	0.10	0.30**	0.42**	0.27*	0.48**	1.00		
11. Stress2	-0.06	-0.14	0.11	0.11	0.05	0.33**	0.45**	0.21	0.52**	0.68**	1.00	
12. Obj1	-0.08	-0.17	0.07	0.13	0.05	0.45**	0.48**	0.21	0.33**	0.51**	0.61**	1.00
13. Obj2	-0.04	-0.18	0.05	0.15	0.06	0.47**	0.44**	0.27*	0.31**	0.54**	0.60**	0.84**

Notes: Comm = communication problem; PB = problem behavior; Demand = demand burden; Stress = stress burden; Obj = objective burden.

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

proportion of variance explained in the measured indicators by the latent factors (communality) was acceptable, ranging from .49 to .85. Given the size of the loadings, the adequate proportion of variance explained by the indicators, the number of indicators per latent factor, and the number of established over newly developed measures in the model, the current sample size of 89 participants was deemed sufficient to provide good model fit (Jaccard & Wan, 1996).

Table 4 provides the correlations for the measured indicators in the model. The correlations between indicators belonging to the same construct were higher in comparison with correlations between indicators belonging to different constructs, providing support to convergent and discriminant validity among the measured indicators (Shadish, Cook, & Campbell, 2002). To impose a common metric on measurement coefficients, all measured variables were standardized as z scores prior to SEM analyses.

Evaluating model fit.—Maximum likelihood was the method of parameter estimation used for all analyses because it yields optimal parameter estimates with continuous multivariate normally distributed variables (Jöreskog & Sörbom, 1993). As no single statistic provides a firm basis for deciding the adequacy of a model (McDonald & Ho, 2002), the following indexes were used to establish model fit: χ^2 goodness-of-fit index, Bentler–Bonett nonnormative fit index (NNFI), root mean square error of approximation (RMSEA), and comparative fit index (CFI).

RESULTS

Model estimation

Table 5 presents the models tested, χ^2 values, RMSEA, NNFI, CFI, and χ^2 difference tests. The measurement model,

which relates the measured indicators to the latent constructs, provided good model fit. The hypothesized structural model was tested next, and the χ^2 difference test indicated no significant loss in fit between the measurement and hypothesized models. Nonsignificant paths were removed to develop a more parsimonious final model. Additionally, modification indices suggested adding a path between care-recipient status and demand burden. The χ^2 difference test confirmed that the final model was better than the hypothesized one (see Figure 2 for the final model with significant standardized coefficients).

Hypothesis 1.—The analyses support our initial hypothesis that communication behaviors would mediate the relationship between care recipient's cognitive and functional status and problem behaviors. The correlations in Table 4 revealed that communication problems were strongly and negatively related to cognition and function. In the final model (see Figure 2), care-recipient status was a strong predictor of communication problems (standardized coefficient = $-.48$), accounting for 23% of the variance in communication problems. In terms of the direct relationship between communication problems and problem behavior, correlational and SEM analyses showed that communication problems were positively related to and directly predicted problem behaviors (standardized coefficient = $.48$). Finally, supporting Hypothesis 1, SEM analyses showed that communication problems mediated the relationship between care-recipient status and problem behaviors (standardized coefficient for indirect effect = $-.23$, $p < .05$). Overall, 23% of the variance in problem behaviors was accounted for by care-recipient status and communication problems.

Hypothesis 2.—Our hypothesis of a relationship between caregivers' perceptions of care recipients' communication behaviors and burden that is mediated by care-recipient

Table 5. Comparison of Nested Models

Model	χ^2 (p value)	df	RMSEA (90% CI)	NNFI	CFI	χ^2 Difference Test
Measurement	60.85 (.27)	55	.035 (0; .078)	.97	.98	
Hypothesized	72.98 (.14)	61	.047 (0; .084)	.96	.97	M2 – M1 = 12.1; $\Delta df = 6$, $p > .05$
Final	66.28 (.30)	61	.031 (0; .074)	.98	.98	M3 – M1 = 5.4; $\Delta df = 6$, $p > .10$

Notes: RMSEA = root mean square error of approximation; CI = confidence interval; NNFI = nonnormative fit index; CFI = comparative fit index.

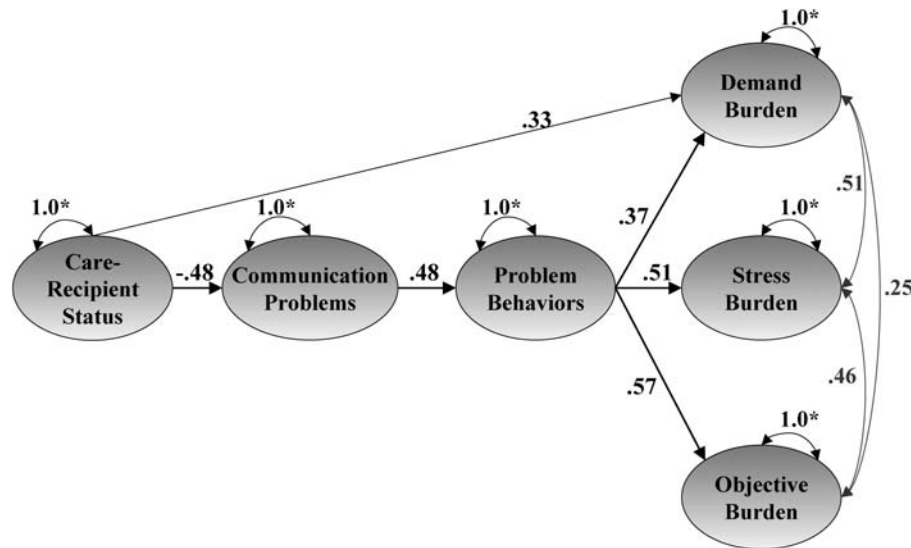


Figure 2. Final model. Asterisks denote parameters fixed to 1.0 for model identification.

problem behaviors was also supported by our analyses. The direct effects of problem behaviors on demand, stress, and objective burden were strong (standardized coefficient = .37, .51, and .57, respectively). As predicted, problem behaviors mediated the relationships between communication problems and demand, stress, and objective burden (standardized coefficient for indirect effects = .18, .24, and .27, respectively, $p < .05$).

Hypothesis 3.—Our third hypothesis examined the relationship between care-recipient status and burden. As expected, communication problems and problem behaviors fully mediated the relationship between care-recipient status and stress (standardized coefficient for indirect effect = $-.12$, $p < .05$). Contrary to our hypothesis, the path between status and objective burden was nonsignificant and therefore removed in the final model. Instead, status indirectly predicted objective burden via communication problems and problem behaviors (standardized coefficient for indirect effect = $-.13$, $p < .05$). There was also a direct relationship between care-recipient status and demand burden (standardized coefficient = .33). Therefore, communication problems and problem behavior partially mediated the relationship between care-recipient status and demand burden (standardized coefficient for indirect effect = $-.08$, $p < .05$). Overall, the latent regressions explained 19%, 26%, and 32% of the variance in demand, stress, and objective burden, respectively.

DISCUSSION

Importance of Studying Communication Problems

Although dementia has been described as a communication disorder, the impact of communication problems on the caregiving experience has gone largely unstudied, with the exception of a few descriptive studies that have noted a link between communicative declines and caregiver distress (Murray et al., 1999; Orange, 1991). The findings from this study highlight the

importance of focusing on communication problems as a key element likely to affect the caregiving relationship and ultimately the level of caregiver burden. Specifically, our findings affirm a clear link between the progression of the disease, the care recipients' loss of communication skills and engagement in problem behaviors, and the caregivers' experience of objective and subjective burden.

Communication Problems as a Link Between Disease Progression and Problem Behaviors

The final model tested in our study indicated that care recipients' functional and cognitive abilities were related to communication problems. This finding is consistent with previous studies that have reported communication problems, such as word-finding and naming difficulties, to be closely linked with losses in memory and to worsen as dementia progresses (Bayles et al., 1992; Orange, 1991). Additionally, the results of our analyses provide insights that account for the absence of a direct linear relationship between the care-recipient status and problem behaviors as reported by previous studies (Aneshensel et al., 1995; McCarty et al., 2000). In the final model tested, communication problems were positively related both to the care recipients' functional status and to problem behaviors. It may be the case that breakdowns in communication trigger feelings of frustration that manifest themselves in the form of problem behavior. Certainly, this explanation is consistent with the work of Rabins and colleagues (1982), who found that nearly 75% of family caregivers reported that communication problems resulted in agitated reactions in their relatives with dementia. The explanation also accounts for the findings by Orange (1991), which indicated that among those caring for individuals with early- to late-stage dementia, 50% of caregivers indicated that care recipients exhibited frustration when they misunderstood a conversation. The majority of care recipients who did not exhibit such frustration were further along the disease path.

Problem Behaviors as Link Between Communication Problems and Burden

The importance of recognizing communication problems as a key element influencing the caregiving experience is underscored by the pattern of relationships that were observed between communication problems and measures of subjective and objective burden. Problem behaviors mediated the relationship between communication problems and demand and stress burden. Communication is critical to maintain familial relationships. When the care recipient is unable to communicate effectively, there is a significant change in the quality of that relationship. However, it is not the lack of communication per se but the “problem behaviors” that stem from diminished communication skills that are most stressing. The sense of demand and stress burden are illustrated by the following comments of caregivers reported by Wright (1993, pp. 33 and 49): “I cannot confide in him anymore . . . I have been exhausted by his repeated questions” and “Sometimes he gets very frustrated, and then he is cursing.”

The relationship between communication problems and the measures of subjective burden may reflect caregivers’ perceptions of legitimacy of care needs. It is possible that caregivers perceive some communication problems and resulting problem behaviors as intentional attempts to annoy or challenge their level of patience. Alternatively, functional declines are physically observable, and caregivers may perceive a need for assistance with ADLs and IADLs as more dire and legitimate. The finding that lower scores on care-recipient status were related to lower levels of demand burden supports this notion. In contrast, caregivers may view problem behaviors, which stem from declines in communication skills, as intentional and an attempt on the part of the care recipient to take advantage of them. Care-recipient status and problem behavior appear to differentially impact the caregiver’s experience of demand burden. Over the course of dementia, problem behaviors may be a more disruptive stressor affecting relationship quality compared with functional or cognitive declines. Therefore, investigating potential sources of problem behaviors, such as communication breakdowns, will be all the more important as researchers develop coping strategies for caregivers.

Our findings also revealed that communication problems indirectly affected objective burden via problem behaviors. Objective burden involves time pressures (Montgomery et al., 2000). Caregivers’ time may be monopolized by attempts to communicate with their relative, leaving less time for themselves. Some problem behaviors, such as aggression, require immediate attention and may result in greater objective burden. When communication problems are coupled with problem behaviors, caregivers may feel that they cannot take advantage of respite opportunities. This may occur because of embarrassment or out of fear that other people could not cope with the behaviors. As a result, caregivers become more isolated by limiting interactions with others (Orange, 1991).

Contrary to our expectations and past research suggesting that objective burden increases as care recipients’ cognitive and functional abilities decline (Vitaliano et al., 1991a), the data did not reveal a direct link between decline in care recipients’ abilities and objective burden. Instead, communication problems and problem behaviors fully mediated the relationship between care-recipient status and both stress and objective burden.

Limitations of the Study and Future Directions

As an initial investigation of how communication difficulties affect burden, these results and our measurement approach to communication problems require replication in other studies. Additionally, the study’s sample size limits generalizing results to the caregiving population, particularly because it did not provide sufficient power to examine the role of potentially important sociodemographic variables such as the caregiver’s familial role (Montgomery & Kosloski, in press). Our understanding of the influence of communication difficulties on the caregiving experience could be enhanced by future studies that examine the effects for different familial relationships (Montgomery & Kosloski, in press).

Future research may also consider the stage of the caregivers’ career when examining the relationship between communication problems and burden. In this study, measures indicative of stage of dementia were significant predictors only for demand burden. As more recognition has been given to the long-term nature of caregiving commitments, scholars have begun to include measures of the caregiving career as a central part of their analyses (Burton, Zdaniuk, Schulz, Jackson, & Hirsch, 2003). The sample for this study included family members at different stages of the caregiving career, which may have masked the effects of communication on burden. Caregivers may adapt to and cope with communication problems differently as they move through various stages. Studies that examine how increases in communication problems map onto that career and to perceptions of burden would improve our understanding of the caregiving career. Such research may also suggest appropriate interventions aimed at improving communication skills to reduce burden. These interventions need to consider the impact of communication strategies not only on burden but also on caregivers’ perceptions of problem behaviors.

Conclusions

Family members caring for relatives with dementia face the challenge of maintaining relationships with persons who are physically present but not able to engage in appropriate social or verbal exchanges. This study provides empirical evidence that communication problems affect caregiver burden. The finding that this relationship is mediated by problem behaviors not only confirms past research on predictors of burden but also supports the use of communication enhancement strategies as a means to target sources of caregiver burden.

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