

# Comparative Outcomes of Two Distance-Based Interventions for Male Caregivers of Family Members With Dementia

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Data are presented on a preliminary study investigating the efficacy of 2 distance-based psychosocial interventions (N = 32) for male family dementia caregivers. Male caregivers were randomly assigned to either a basic education intervention (ie, educational booklet and biweekly check-in telephone calls) or a video intervention (ie, set of 10 videos, an accompanying workbook, and weekly telephone coaching sessions using behavioral strategies to manage challenging caregiving situations). Results did not support the greater efficacy of the video condition in reducing psychosocial distress (eg, negative affect, upset

and annoyance following behavior problems) or increasing positive affect or caregiving self-efficacy. There was, however, a statistically significant effect for postintervention improvement in both the video/coaching and the educational booklet/check-in conditions. Potential reasons for the lack of differential treatment effects are discussed, along with implications for recruitment of male dementia caregivers.

**Keywords:** Dementia, Alzheimer's disease, male caregivers, problem behaviors

Men represent approximately one third of dementia caregivers,<sup>1</sup> and there are important differences between men and women in the consequences of their caregiving. Men (husbands and sons) and women (wives and daughters) caregivers experience divergent predictors of negative affect<sup>2, 3, 4</sup> and course of depression during caregiving and bereavement.<sup>5, 6</sup> Research also suggests that male caregivers experience elevated cardiovascular risk compared with female caregivers, higher triglyceride levels,

and lower levels of high-density lipoproteins.<sup>7</sup> Compared with noncaregiving men and with women caregivers, male caregivers have demonstrated significantly greater weight gain (a risk factor for cardiovascular disease) and changes in psychoneuroimmunologic measures of chronic stress exposure.<sup>8</sup> Although differences between men and women caregivers are important to note, more relevant comparisons are between caregiving and noncaregiving men because men in the general population commonly report lower levels of distress and depression relative to women.<sup>9</sup> Comparison between caregiving and noncaregiving men suggests that male caregivers report more depression, as well as lower levels of happiness and perceived emotional support.<sup>10</sup>

The 2 risk factors most highly associated with male caregivers' physical health are the care recipients' problem-behavior frequency and the degree of stress over these behavior difficulties.<sup>1</sup> Kramer's<sup>11</sup> study of husband dementia caregivers living with their wives demonstrated that the primary predictors of their caregiving distress were behavior and memory problems. Troublesome patient behaviors and

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caregiver reactions to those behaviors were predictive of actual institutionalization.<sup>12</sup> Given the increases in medical morbidity and institutionalization brought by escalation of dementia patients' problem behaviors, the associated social and financial costs pose a mandate: help family caregivers develop and use the skills to manage these behavior difficulties and associated distress. This will result in improved quality of life for these families. Further, a consequence of reduced rates of premature institutionalization would be cost-savings for caregivers and US taxpayers. Thus, a strong case is made for interventions that assist caregivers to manage problem behaviors and their reactions to them.

There are few reported randomized clinical trials that focus on the effectiveness of interventions for male caregivers. The importance of reversing this research gap is underscored by evidence of gender differences in reactions (a) to the caregiving situation and (b) to research interventions themselves. Some randomized clinical trials have included sufficient numbers of male caregivers to provide significant evidence of their response to interventions. In a home environmental intervention that included an analysis of gender effects,<sup>13</sup> men demonstrated a significantly lower rate of adherence (proportion of intervention strategies used compared with number provided) to the intervention. In addition, whereas women showed improvements in self-efficacy for dealing with family members' problem behaviors, the men did not. Men also showed significantly less improvement than women caregivers in their self-efficacy for handling family members' instrumental activities of daily living (ADL). Analysis of the male caregiver data from 5 of the 6 sites of the Resources for Enhancing Alzheimer's Caregiver Health (REACH) project indicated that males demonstrated no significant improvement in distress scores (upset and annoyance), whereas women did show a treatment effect.<sup>14</sup>

Male family caregivers present particular problems to researchers. It is often difficult for investigators to obtain sufficient numbers of local male caregivers for statistical analyses. Although male support-group members in one study suggested that time be allowed for discussing emotional reactions to caregiving,<sup>15</sup> many men prefer informational or skill-development interventions, rather than emotionally focused interventions. Male caregivers have a documented preference for problem-solving, task-oriented, "fix it" rather than "feel it" approaches.<sup>16,17</sup> Additionally, men tend to not seek available caregiver classes or services offered by such agencies as local Alzheimer's Association

chapters.<sup>18</sup> These obstacles to male caregiver participation in caregiver programs were the origins for the present pilot intervention: (1) the study drew from 8 Midwestern states to provide a sufficient number of male caregivers for a responsible analysis; (2) the intervention's focus was primarily behavioral (eg, behavioral management, behavioral activation, controlled breathing for relaxation), not cognitive or emotional. In addition, because this distance training was provided by mail and telephone, the intervention avoided such discouragements as transportation time, bad weather, need for supervision of the care-recipient, fear of appearing incompetent, as well as privacy concerns.

## Method

### Participants

The study consisted of 32 men who were caring for a family member with dementia. Recruitment strategies for this pilot project included letters, newsletters, flyers, brochures, presentations, and telephone calls to Alzheimer's Association chapters, Area Agencies on Aging, and day care centers throughout an 8-state Midwestern area (ie, Iowa, Illinois, Indiana, Kansas, Michigan, Missouri, Nebraska, and Wisconsin). In addition, these agencies' family-services coordinators, case managers, support group leaders, and social workers referred male caregivers to the program. Some men self-referred, after seeing newsletter articles, brochures, and flyers. A local-broadcast TV station also provided a short description of the project. The brochure included a postage-paid mail-back section so that caregivers or agency staff could leave their names, addresses, and phone numbers for the investigator to contact them.

### Inclusion Criteria and Sample Characteristics

Caregivers were screened by phone for participation in the program. Included in the screening call was a description of the study, explanation of the project requirement of random assignment to either the video or instructional booklet conditions, as well as time for caregiver questions. Inclusion criteria for the caregivers included the following: male gender; willingness to be assigned by chance to either group (video vs instructional booklet); primary caregiver for a family member diagnosed with a dementing illness; living in same residence as care recipient; caregiver between ages of 30 and 85; no plans to place the family member in a

nursing home or hospice services within the next 6 months; visual acuity sufficient to read a book; the auditory ability to hear voice on the telephone and TV; no current alcohol abuse or serious suicidal ideation; no history of suicide attempt; no current involvement in another caregiver intervention project; access to telephone, TV, and VCR; an established relationship with a clinic or primary care physician with whom caregiver had visited within the last year; at least 2 care recipient memory or behavior problems that occurred in the past week, and at least a moderate level of distress (upset or annoyance) following 2 or more care recipient behaviors.

Inclusion criteria for the care recipient included the following: no lifetime history of schizophrenia, bipolar disorder, suicidality, Huntington's disease, Korsakoff's disease, multiple sclerosis, human immunodeficiency virus (HIV), or alcohol abuse; an established relationship with a clinic or primary care physician whom care recipient had visited within the last year; and a diagnosis of dementia confirmed by a physician.

Of the 73 male caregivers screened, 36 were eligible for the study; 4 caregivers withdrew before randomization, resulting in a randomized sample of 32 participants. The primary reason for exclusion was insufficient distress over memory or behavior problems of the care recipient. Please see Table 1 for characteristics of this sample of male caregivers. The table reveals that this was a fairly well-educated sample of older men, with low self-reported levels of upset and annoyance. In addition, they reported relatively few problems with the cognitive functioning and ADL functioning of their family members. Randomized participants included 17 caregivers in the video/telephone-coaching intervention, and 15 in the education condition.

## Measures

Caregivers who met criteria were scheduled for a telephone baseline assessment, to be conducted approximately 1 week later. Participants also completed a postintervention assessment of the outcome measures. These assessment interviews were conducted by the trained project staff who were blind to condition.

*Confirmation of diagnosis.* At the time of the baseline assessment, the caregiver signed a form authorizing the patient's physician to inform our study laboratory of the nature of the dementia diagnosis. A copy of this caregiver-signed authorization was sent, with an explanatory cover letter, to the physician. The physician checked the appropriate diagnosis and signed the document,

**Table 1.** Characteristics of Caregiver and Care Recipients

Characteristics	Total Sample (N=32)
Caregiver age, <i>mean</i> (SD)	71.6 (9.7)
Care recipient age, <i>mean</i> (SD)	76.1 (7.6)
Education, <i>mean</i> (SD)	13.5 (2.2)
Caregiver employment	
Employed full-time, %	3.1
Employed part-time, %	15.6
Retired, %	78.1
Not currently employed, not retired, %	3.1
Relationship to patient:	
Spouse, %	88
Son, son-in-law, brother, %	12
Affordability of basics score (1, not difficult at all; 2, not very difficult; 3, somewhat difficult; 4, very difficult), <i>mean</i> (SD)	1.8 (0.8)
Care recipient health score (1, poor; 2, fair; 3, good; 4, very good; 5, excellent), <i>mean</i> (SD)	2.3 (1.1)
Care recipient activities of daily living score, <i>mean</i> (SD)	2.3 (2.0)
Patients diagnosed with Alzheimer's disease, %	75

which was mailed back to the study laboratory. The physicians' answer options were: dementia secondary to: Alzheimer's disease; Parkinson's disease; cerebrovascular disease; Huntington's disease; Korsakoff's disease; multiple sclerosis; or "other" with a blank to specify the diagnosis (undecided dementia, or no dementia). Additional options were history of alcohol abuse and history of schizophrenia or bipolar disorder. Our rate of physician return of the diagnosis forms was 97%. We did not assess the responding physician's specialty. Although most diagnoses were provided by primary care physicians, geriatric physicians and neurologists also responded, or their diagnoses were part of the primary care physician's patient chart.

*Assessment of memory and behavior problems.* The cornerstone of the baseline and outcome assessment was the Revised Memory and Behavior Problem Checklist (RMBPC).<sup>19</sup> This instrument asks the caregiver whether the family member with dementia displayed a number of specific problem behaviors over the past week (ie, memory related behaviors [7 items], disruptive

behaviors [8 items], and depressive behaviors [9 items]). If the caregiver endorsed a patient behavior occurring in the past week, then his distress concerning that behavior was assessed by asking the level of bother or upset (Likert scale of 0 [not at all] to 4 [extremely]). Then, unique to our laboratory's studies, we asked how "irritated or annoyed" the caregiver became when the behavior occurred (ie, 0 [not at all] to 4, [extremely]). Our study used average upset and average irritation ratings, on a scale of 0 to 4.

*Self-efficacy.* The Revised Scale for Caregiving Self-Efficacy<sup>20</sup> was administered to assess change in caregivers' confidence in asking for respite, in responding to problem situations with the care recipient, and for controlling upsetting thoughts about caregiving. The 15-item scale has been shown to have adequate test-retest reliability and construct validity when used with dementia caregivers.<sup>20</sup> The 3 subscale scores reflect average self-efficacy ratings on a scale of 0 to 100.

*Positive and negative emotions of the caregiver.* The caregiver's levels of affect were assessed by the Positive and Negative Affect Scale.<sup>21</sup> This questionnaire consists of two 10-item sets of adjectives: one set that describes positive feelings (eg, "enthusiastic"), with a Cronbach's  $\alpha = .83$ ; and the other set representing negative (eg, "ashamed") emotions, with an  $\alpha = .80$ . Response choices ranged from 1 ("very slightly or not at all") to 5 ("extremely"), and items were rated for the past week. Positive and Negative Affect summary scores each range from 10 to 50.

*Target complaints interview.* With this idiographic assessment tool,<sup>22</sup> caregivers were asked to identify the 3 most stressful situations for them as caregivers. Then, for each of the situations the caregiver described, the caregiver was asked the degree to which the situation caused him to be upset, sad, frustrated, and irritated, on a Likert scale of 1 (not at all) to 5 (extremely). These adjective ratings were each averaged across the 3 situations to yield a summary score for each adjective, ranging from 1 to 5 (Cronbach's  $\alpha = .88$ ). The same 3 complaints used in the preintervention assessment were used for the postintervention assessment to allow us to examine change over the intervention period for those specific caregiving concerns.

*Functional abilities of the care recipient.* The Index of Activities of Daily Living scale<sup>23</sup> provided information concerning the care recipients' levels of functional impairments. The ADL scores range from 0 to 6, each

number reflecting a type of disability (eg, bathing, dressing).

*Suicidality.* Given the relatively high risk of suicidality in older men,<sup>24</sup> question number 9 of the Beck Depression Inventory-2<sup>25</sup> was administered during the screening baseline interview to ensure that no caregiver had serious suicidal ideation. In addition, each male caregiver was asked if he had ever attempted suicide. (None responded "yes.")

*Cognitive abilities of the care recipient.* Cognitive deficits of the family member with dementia were assessed using a telephone measure of cognitive impairment.<sup>26</sup> The measure includes 7 items that require the caregiver to rate on a Likert scale (from "not at all difficult" to "can't do at all") the ability of the dementia patient to engage in common everyday cognitive tasks. Total scores range from 0 to 35. The measure has good internal reliability (Cronbach's  $\alpha = .86$ ) and adequate convergent validity, as illustrated by the correlation between the telephone measure of cognitive impairment and the Mini Mental State Examination (MMSE) ( $r = .65$ ).<sup>26</sup>

## Treatment Conditions

*Education/check-in-call condition.* Participants in this comparison condition received by mail a 37-page booklet, *Basic Dementia Care Guide*,<sup>27</sup> which included information on dementia and suggestions for dealing with a variety of caregiving challenges. In a cover letter, procedures for maximizing the benefits of this educational booklet were provided. Caregivers then received approximately 7 biweekly telephone calls by a trained staff member. In these calls, the staff member checked on the safety of the caregiver and family member, discussed the caregiver's use of the suggestions from the guide, and responded to questions by referring the caregiver to appropriate sections in the guide. A standardized script was used for calls to participants in this comparison condition.

*Video/workbook/telephone coaching condition.* Caregivers in the video condition received a 10-session video series,<sup>28</sup> a workbook adapted for men<sup>29</sup> from the Dementia Caregiving Skills Program, and weekly telephone calls from a trained coach. This intervention for males used primarily behavioral strategies (behavioral activation, behavioral management, stress reduction through relaxation training). The purposes of these "fix

it" strategies are to (1) improve caregiver mood by demonstrating the relationship between mood and pleasant events and by assisting the caregiver to develop the skill of increasing pleasant events for him and his relative; (2) reduce the frequency or severity of at least one problem behavior through individualizing the application of behavioral management skills; (3) reduce caregiver stress (including anger) through development of basic relaxation skills.

The workbook provides didactic and experiential materials that reinforce information presented in each video session. Participants received 12 weekly phone calls by trained research staff who served as coaches (1 female and 1 male clinical geropsychologist, and 1 masters-level student in gerontology). The first 10 calls reinforced each of the video sessions; the last 2 calls served as follow-up for further application of concepts. Coaches followed a coach manual<sup>30</sup> that provided a script for reviewing didactic materials and assignments with caregivers, and for assisting them in the application of intervention concepts to their unique problems. During the coaching calls caregivers report the specific behavioral strategies that they have devised, written down, used, and evaluated, based on the behavior management module that they have learned to apply to their situations. If there had been emergency situations (there were none), these difficulties would have been discussed with caregivers and, with caregivers' permission, referred to primary care physicians (or another appropriate specialist or agency).

## Results

### Randomization Check

Independent t-tests revealed no significant preintervention differences between participants in the 2 conditions regarding age, education, number of memory or behavior problems, as well as levels of upset and annoyance over these problems. Likewise, there were no significant preintervention differences between the conditions in care recipient levels of health, cognitive or functional impairment, as reported by the caregiver.

There was a statistically significant difference ( $p = .006$ ) in perceived affordability of basics like food, housing, medical care, and heating. Men in the educational booklet condition rated themselves as somewhat more prosperous by indicating that it was "not difficult at all" to purchase these necessities, whereas the video group rated affordability as "not very difficult." This affordability variable was not correlated

with any of the outcome variables and was therefore not used as a covariate in the statistical analyses.

### Completion Rates

Of the 32 randomized caregivers, 4 did not complete the program; all 4 of these withdrawals were from the video group. Reasons for withdrawal included insufficient interest and time ( $n = 3$ ), as well as nursing home placement of the care recipient ( $n = 1$ ). For the purposes of outcome analyses, an intent-to-treat approach (preintervention scores carried forward) was used to handle the missing data.

### Outcome Analyses

To examine treatment efficacy of the intervention, we ran 4 separate repeated-measure multivariate analyses of variance (MANOVAs) using a 2 (video/basic education) X 2 (baseline/postintervention) design. The baseline/postintervention variables were: caregiver upset and annoyance from the RMBPC; caregiver self-efficacy (asking for respite; dealing with behavior problems; stopping worrisome thoughts); positive and negative affect; and affect ratings, averaged across the 3 target complaints (degree of upset, sadness, frustration, irritation). The means and standard deviations are shown in Table 2.

For caregiver upset and annoyance ratings of the RMBPC, the repeated measure MANOVA indicated no significant time-by-condition interaction,  $F(2,29) = .61$ ,  $p = .55$ ,  $\eta p^2 = .04$ ; therefore, the greater efficacy of the video condition in reducing upset and annoyance following specific behavior problems was not demonstrated. There was a significant effect for time across both the basic educational and the video condition,  $F(2,29) = 8.18$ ,  $p = .002$ ,  $\eta p^2 = .36$ , indicating that both the educational booklet/check-in calls and the video/coaching intervention showed preintervention-postintervention changes in caregivers' upset and annoyance levels.

For self-efficacy (for requesting assistance, for handling problem behaviors, and for controlling negative thoughts), there was no significant time-by-condition interaction,  $F(3,28) = .34$ ,  $p = .80$ ,  $\eta p^2 = .04$ ; therefore, the greater efficacy of the video condition in increasing self-efficacy was not demonstrated. Again, there was a significant effect for time across both the educational booklet/check-in condition and the video/coaching intervention,  $F(3,28) = 3.17$ ,  $p = .04$ ,  $\eta p^2 = .25$ .

**Table 2.** Preintervention and Postintervention Scores by Treatment Condition (Intention-To-Treat)

	Educational Booklet (n = 15)		Video Intervention (n = 17)	
	Pre-intervention Score (SD)	Post-intervention Score (SD)	Pre-intervention Score (SD)	Post-intervention Score (SD)
Memory and Behavior Problem Checklist (MBPC)				
Upset	1.4 (0.5)	0.9 (0.5)	1.3 (0.5)	1.0 (0.5)
Annoy	1.2 (0.6)	0.8 (0.6)	1.1 (0.7)	1.0 (0.7)
Positive and Negative Affect (PNA)				
Positive	29.0 (5.5)	29.0 (7.5)	32.9 (7.1)	32.9 (8.3)
Negative	18.7 (6.7)	17.2 (5.9)	18.9 (4.9)	16.1 (3.9)
Self-Efficacy (SE)				
For Obtaining Respite	61.1 (27.3)	69.5 (25.4)	70.7 (26.6)	72.3 (23.6)
For Dealing with Problem Behaviors	70.2 (23.4)	78.1 (20.0)	72.9 (15.5)	81.1 (10.3)
For Controlling Thoughts	71.6 (14.5)	78.3 (17.0)	67.2 (18.6)	70.5 (16.4)
Target Complaints (TC)				
Upset	3.3 (0.6)	2.4 (0.8)	3.2 (0.7)	2.3 (0.8)
Sadness	3.0 (0.8)	2.1 (0.9)	3.0 (1.0)	2.2 (0.7)
Frustration	3.1 (0.6)	2.6 (1.0)	3.1 (0.9)	2.2 (0.6)
Irritation	2.8 (0.9)	2.2 (1.0)	2.8 (0.9)	2.2 (0.6)

When treatment efficacy in positive and negative affect was examined using a repeated measures MANOVA, there was no significant time-by-condition interaction,  $F(2,29) = .44$ ,  $p = .65$ ,  $\eta p^2 = .03$ ; therefore, the greater efficacy of the video condition in increasing positive affect and decreasing negative affect was not demonstrated. There was a significant effect for time across both the educational booklet/check-in call group and the video/coaching groups,  $F(2,29) = 4.56$ ,  $p = .02$ ,  $\eta p^2 = .24$ .

The fourth and last MANOVA with repeated measures was run for the 3 target complaints (ratings of upset, sad, frustrated, and irritated averaged across the 3 situations). Again, there was no significant time-by-condition interaction for target complaints,  $F(4,27) = 1.08$ ,  $p = .38$ ,  $\eta p^2 = .14$ ; therefore, the greater efficacy of the video condition in reducing the individual caregivers' distress (upset, sadness, frustration, irritation) from specific caregiving concerns was not demonstrated. There was a significant effect for time across both the educational booklet/check-in call group and the video/coaching groups,  $F(4,27) = 11.28$ ,  $p < .001$ ,  $\eta p^2 = .63$ , indicating that both conditions showed a preintervention–postintervention reduction in caregivers' distress from target complaints.

Therefore, the same pattern of findings was found for all outcomes (ie, distress following memory and behavior problems, the positive and negative affect, self-efficacy, and target complaints); that is, both the

intervention and comparison groups demonstrated statistically significant improvement at posttest, but the video group did not demonstrate significantly greater improvement over the comparison group.

## Discussion

To our knowledge, this pilot study is the only distance-based intervention (in a randomized trial format) specifically for male caregivers. It is also the first to use entry criteria that included the problems targeted by the intervention<sup>31</sup> and to demonstrate improvement in male caregivers' upset and annoyance scores in response to a specific training program. The study was designed to be easily replicated because of its very specific directions (workbook, coach manual, educational booklet, check-in call script, etc.). Because it is a distance intervention, done by phone and by mail, it is not restricted by geography, weather, class size, transportation, personal disability, or privacy concerns. Nevertheless, the convenience sample and its demographic characteristics limit the ability to generalize our findings. In addition, recruitment was difficult, despite having 8 states from which to draw. Most men who called in were referred by support group leaders or case managers, a pattern observed in previous accounts of interventions developed for male caregivers.<sup>32</sup> The most frequent reason for not meeting inclusion criteria was not meeting the minimal

requirement of at least moderate (a score of 2) upset or annoyance on 2 behavior problems of the care recipient. For the entire group of participants, the preintervention mean scores for upset and annoyance were between 1.1 and 1.4 (Table 2), with 1 indicating "a little" upset or annoyed. So, there was a floor effect, with participants being minimally upset or annoyed before they began either the intervention or comparison condition.

This floor effect could have been due, in part, to men's tendency to underreport negative feelings.<sup>33,34</sup> In fact, past research has demonstrated that men respond differently from women to emotionally laden items commonly used to assess distress in caregiving samples (eg, Center for Epidemiologic Studies Depression scale).<sup>35,36</sup> That this underreporting happened at least once was demonstrated by 1 caregiver during the screening stage of this study: when the caregiver was told that he did not meet the inclusion criteria for the program and the caregiver asked why, the staff member explained that his answers revealed that he was not sufficiently upset or distressed by his spouse's behaviors. The caregiver then said that he had not been entirely honest and that he would like to redo the questionnaire. Upon repeating the checklist, he endorsed higher upset and annoyance ratings and more than met the program criteria. Although we encouraged candid responses before beginning this questionnaire, the above example demonstrates the possibility of underreporting of baseline upset and annoyance scores (or a canny prospective participant who wanted to make sure he qualified for the study).

The majority of caregivers (88%) were spousal caregivers, and the sample ranged in age from 47 to 84.91% of the caregivers were over age 60. This lack of variability prevented us from controlling for age as a covariate. Likewise, there might have been differences by relationship (eg, spouse, adult child, brother) and/or differences regarding cohort that we were unable to assess.

Once the caregivers had completed the video or educational booklet programs, the postintervention mean scores were closely clustered between 0.8 and 1.0: Both the intervention and comparison groups showed improvement in their upset and annoyance levels, but the video group did not make the hypothesized differential improvement over the comparison group. Perhaps the education with check-in calls is a sufficient intervention for minimally upset caregivers; if we had required higher upset and annoyance levels at baseline, the educational booklet may not have been

sufficient to help moderately upset caregivers. A higher baseline criterion would have excluded many of our participants, however, and required significantly increased resources for recruitment.

These findings suggest the need for measures that are sensitive to men's reactions to the caregiving role. This may be accomplished in 2 ways. First, given the widely accepted expectation that men underreport subjective distress on commonly used self-report measures, it is imperative that investigators select measures that are less prone to response bias. Although challenging in a project such as the one we describe, a potential avenue for assessing men's reactions to caregiving are physiologic measures, which are not vulnerable to response bias and have evidence of being altered in caregiving men relative to caregiving women and non-caregiving men. What remains to be determined is if these measures will be sensitive to changes produced by caregiving interventions. Second, efforts should be focused on developing measures sensitive to men's experiences in the caregiving role. Development of measures based on male caregivers' experiences is limited, possibly due to the challenges of recruiting sufficient male caregiver samples. Thus, many contemporary measures widely used in caregiving studies were developed and normed with predominantly women caregiving samples. Tapping men's unique caregiving experiences may explain our results indicating that the largest effect size was associated with changes in the idiographic target complaints measure, which assesses caregivers' upset, sadness, frustration, and irritation with individually identified caregiving stressors. Thus using measures that better capture men's caregiving experiences may be an effective way of determining their eligibility and response to caregiver interventions.

Obtaining a larger sample of more distressed male caregivers presents a considerable challenge. It would appear that an already existing system of repeated appointments or contacts would be best for recruitment and retention of participants for an intervention study. For example, multi-site geriatric clinics or Alzheimer Disease Research Centers could promote inclusion of male caregivers in educational/psychoeducational research, with the distribution of the *Basic Dementia Care Guide* as a minimum intervention. Such a system would include ongoing personal and interdisciplinary support of the male caregiver to check on his individual problems and to prevent his isolation. A social worker, nurse, or other staff could meet with the male caregiver at the occasion of all care-recipient appointments. This step seems critical, given evidence

that primary care physicians ask caregiving men about their distress less frequently than they ask caregiving women.<sup>37</sup> Such strategies will be needed to identify and help men experiencing the challenges of dementia caregiving.

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