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Appendix: Nonresponders and Missing Data

We completed follow-up interviews for 89% of 212 Hispanic or Latino caregivers, 93% of 219 white or Caucasian caregivers, and 90% of 211 black or African American caregivers, with no statistically significant differences by treatment group. Comparing selected characteristics for the 582 participants with those of the 60 randomized participants for whom outcome data were not available within each racial or ethnic group indicated that caregivers with follow-up data were similar at baseline to the group of caregivers who withdrew consent ($n = 35$), could not be located ($n = 22$), died ($n = 1$), or had to be excluded from the study after randomization ($n = 2$). The only statistically significant ($P < 0.05$) differences were in Hispanic or Latino caregivers. Those without the 6-month follow-up had lower CES-D scores and higher social support scores at baseline than those with follow-up data.

Because caregivers of care recipients who were institutionalized continued to be involved in caregiving, we administered the complete outcomes battery and included the caregivers in the primary outcomes analysis. Neither burden nor problem behaviors were relevant outcome measures when care recipients died ($n = 41$), so caregivers of these recipients did not have data on all primary outcome component measures, and we therefore did not include them in the primary outcome analyses. Another 23 participants were missing data for at least 1 component of the outcome measure, so 518 (89%) of the 582 caregivers with a 6-month interview had complete data for all 5 indicators on the multivariate outcome measure.

Hispanic or Latino care recipients of caregivers who were included in the primary outcome analyses had significantly fewer ($P = 0.045$) activities of daily living (ADL) impairments (median ADL, 4 [interquartile range (IQR), 1 to 5]) and higher ($P = 0.030$) cognitive function (median MMSE score, 11 [IQR, 7 to 18]) compared with the 44 Hispanic or Latino care recipients of caregivers who were not included in the analysis (median ADL, 4.5 [IQR, 3 to 6]; median MMSE score, 9.5 [IQR, 5.5 to 14]). These factors are associated with both care recipient death and institutionalization (32, 33). Furthermore, white or Caucasian care recipients whose caregivers were included in the primary outcome analyses were significantly younger (median age, 79.2 years [IQR, 73.8 to 84.3 years]; $P = 0.003$) than the 37 white or Caucasian care recipients whose caregivers were missing follow-up data (median age, 84.1 years [IQR, 78.3 to 87.8 years]).

Appendix Table 1. Reasons for Ineligibility*

Reason for Ineligibility	Participants, *n*
Caregiver provides <4 hours of care per day	28
Care recipient likely to be placed within 6 months	6
Care recipient has been hospitalized >3 times in the past year	31
Caregiver did not meet self-report caregiver distress criterion†	85
Caregiver is cognitively impaired (4 incorrect responses to SPMSQ)	1
Caregiver enrolled in another caregiving study or caregiver or care recipient was in REACH I	12
Other reasons‡	33
Total§	196

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* REACH = Resources for Enhancing Alzheimer's Caregiver Health; SPMSQ = Short Portable Mental Status Questionnaire (31).

† For example, felt stressed, felt overwhelmed, had crying spells, felt cut off from family or friends, or was angry because of caregiving.

‡ Other reasons were that the caregiver was not willing to install a telephone; caregiver did not have a telephone line; caregiver or care recipient had cancer; or care recipient was mentally ill, had a head injury, was blind, or was deaf.

§ Some caregivers met several exclusion criteria; the number excluded on the basis of screening was 171.

Appendix Table 2. Reasons for Unavailable End Points and Types of 6-Month Follow-up

Variable	Hispanic or Latino Participants, *n*		White or Caucasian Participants, *n*		Black or African-American Participants, *n*	
	Control	Intervention	Control	Intervention	Control	Intervention
Reasons for unavailable end points						
Caregiver withdrew consent	6	8	5	6	5	5
Caregiver could not be located	6	4	2	1	5	4
Caregiver died	0	0	0	0	1	0
Caregiver was excluded from study (potential danger to interventionist)	0	0	0	1	0	1
Type of 6-month follow-up						
Regular follow-up	84	86	73	91	84	80
Placement follow-up	6	1	13	6	4	2
Bereavement follow-up	4	6	9	6	6	10
Abbreviated follow-up (caregivers were unwilling to complete entire battery)	0	1	4	2	2	2

Appendix Table 3. Sessions, Session Types, and Time of Sessions by Race or Ethnicity*

Variable	Total	Hispanic or Latino	White or Caucasian	Black or African American
Intervention participants, *n*	323	106	113	104
Median (IQR) number of sessions (maximum, 12), *n*	12 (9–12)	12 (10–12)	12 (11–12)	11 (7.5–12)
Median (IQR) number of in-home sessions, *n*	9 (8–9)	9 (8–10)	9 (8–10)	8 (6–9)
Median (IQR) number of telephone sessions, *n*	2 (2–3)	2 (2–3)	2 (2–3)	2 (2–3)
Median (IQR) number of support group calls (maximum, 5), *n*	3 (2–4)	2 (2–4)	4 (3–5)	3 (2–4)
Median (IQR) total time, *h*	14.3 (9.6–17.2)	16.1 (10.5–19.0)	14.3 (10.7–16.6)	12.8 (8.2–15.5)
Median (IQR) in-home session time, *h*	13.3 (9.7–15.5)	15.0 (10.7–17.8)	13.0 (10.0–15.3)	12.3 (8.6–14.4)
Median (IQR) telephone session time, *h*	1.2 (0.7–1.8)	1.4 (0.9–2.1)	1.1 (0.8–1.5)	1.1 (0.7–1.7)
Median (IQR) time of support group calls, *h*	3.3 (2.1–4.4)	2.4 (1.9–4.1)	3.8 (2.3–4.8)	3.3 (2.5–4.6)
Completed 12 sessions, %	60	69	65	47
Completed 9–11 sessions, %	17	7	20	22
Completed 5 support group calls, %	12	7	20	10
Completed ≥1 support group call, %	66	58	75	64
No intervention, %	5	8	2	7
Control participants, *n*	319	106	106	107
Received both calls, *n*	90	87	94	88

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* IQR = interquartile range.

Appendix Table 4. **Baseline Values and Results of the Resources for Enhancing Alzheimer's Caregiver Health (REACH) II Study***

Variable	Caregiver Burden Score (Range, 0–44)	Depression Score (Range, 0–30)	Self-Care Score (Range, 0–11)	Social Support Score (Range, 0–30)	Problem Behaviors Score (Range, 3–15)	Common Treatment Effect across Outcomes (95% CI)
Hispanic						
Control (*n* = 86)						
Mean (SD) baseline score	17.4 (9.9)	10.4 (7.3)	4.6 (2.2)	13.4 (5.4)	10.6 (2.8)	
Mean (SD) 6-mo follow-up score	15.9 (9.9)	9.6 (7.1)	4.3 (2.5)	12.6 (5.6)	10.7 (2.8)	
Mean (SD) change†	–1.5 (7.2)	–0.8 (5.0)	–0.2 (2.2)	–0.8 (4.7)	0.1 (3.2)	
Mean (SD) standardized change‡	–0.2 (0.9)	–0.2 (1.0)	–0.1 (0.9)	–0.2 (1.0)	0.0 (1.0)	
Intervention (*n* = 82)						
Mean (SD) baseline score	16.9 (9.6)	10.9 (7.2)	4.8 (2.5)	13.8 (5.3)	10.6 (2.8)	
Mean (SD) 6-mo follow-up score	14.9 (9.1)	8.6 (6.9)	3.8 (2.8)	12.7 (5.1)	9.2 (2.9)	
Mean (SD) change†	–2.0 (9.1)	–2.4 (5.4)	–1.0 (2.7)	–1.1 (5.0)	–1.5 (2.8)	
Mean (SD) standardized change‡	–0.3 (1.1)	–0.5 (1.0)	–0.4 (1.1)	–0.2 (1.0)	–0.5 (0.9)	
Estimated difference (±SE) in 6-mo change between treatment groups (*n* = 168)						
Unadjusted standardized§	–0.1 ± 0.1	–0.3 ± 0.1	–0.3 ± 0.1	–0.1 ± 0.1	–0.5 ± 0.1	–0.3 ± 0.1 (–0.4 to –0.1)
P value for treatment	0.66	0.054	0.042	0.68	0.001	<0.001
Adjusted standardized‖	–0.1 ± 0.1	–0.3 ± 0.1	–0.3 ± 0.1	–0.1 ± 0.1	–0.5 ± 0.1	–0.3 ± 0.1 (–0.5 to –0.1)
P value for treatment	0.46	0.047	0.028	0.57	<0.001	<0.001
Adjusted by using original scale¶	–2.3 ± 7.6	–1.6 ± 5.3	–0.8 ± 2.5	–1.5 ± 4.9	–0.9 ± 3.1	
White						
Control (*n* = 86)						
Mean (SD) baseline score	18.8 (9.3)	10.6 (6.6)	3.7 (2.3)	12.0 (6.0)	11.1 (2.4)	
Mean (SD) 6-mo follow-up score	17.7 (9.6)	9.1 (6.0)	3.7 (2.3)	11.5 (6.2)	11.1 (2.7)	
Mean (SD) change†	–1.2 (6.1)	–1.5 (4.6)	–0.0 (1.9)	–0.5 (5.1)	–0.1 (2.8)	
Mean (SD) standardized change‡	–0.2 (0.9)	–0.3 (0.9)	–0.0 (1.0)	–0.1 (1.0)	–0.0 (1.0)	
Intervention (*n* = 96)						
Mean (SD) baseline score	18.7 (7.8)	9.5 (5.5)	4.0 (2.1)	11.7 (5.3)	10.7 (2.6)	
Mean (SD) 6-mo follow-up score	17.0 (8.0)	7.8 (5.2)	3.5 (2.0)	10.1 (5.3)	10.1 (2.4)	
Mean (SD) change†	–1.8 (7.0)	–1.7 (5.5)	-0.4 (1.9)	–1.7 (4.6)	–0.6 (2.9)	
Mean (SD) standardized change‡	–0.3 (1.1)	–0.3 (1.1)	-0.2 (1.0)	–0.3 (1.0)	–0.2 (1.0)	
Estimated difference (±SE) in 6-mo change between treatment groups (*n* = 182)						
Unadjusted standardized§	–0.1 (0.1)	–0.0 (0.1)	–0.2 (0.1)	–0.2 (0.1)	–0.2 (0.1)	–0.2 ± 0.1 (–0.4 to –0.0)
P value for treatment	0.53	0.69	0.149	0.117	0.185	0.037
Adjusted standardized‖	–0.1 (0.1)	–0.0 (0.1)	–0.2 (0.1)	–0.2 (0.1)	–0.2 (0.1)	–0.2 ± 0.1 (–0.4 to –0.0)
P value for treatment	0.51	0.69	0.146	0.112	0.167	0.032
Adjusted by using original scale¶	–1.2 (6.6)	–0.9 (5.1)	–0.3 (1.9)	–0.9 (4.9)	–0.5 (2.9)	
Black						
Control (*n* = 85)						
Mean (SD) baseline score	15.3 (8.7)	8.9 (6.0)	4.3 (2.3)	12.1 (5.4)	10.0 (2.6)	
Mean (SD) 6-mo follow-up score	14.3 (8.3)	7.7 (6.5)	4.2 (2.3)	11.1 (5.8)	9.9 (3.1)	
Mean (SD) change†	–1.0 (6.4)	–1.2 (5.0)	–0.1 (1.8)	–1.1 (5.4)	–0.1 (3.0)	
Mean (SD) standardized change‡	–0.2 (1.0)	–0.3 (0.9)	–0.0 (1.0)	–0.2 (1.0)	–0.0 (1.0)	
Intervention (*n* = 83)						
Mean (SD) baseline score	15.5 (7.2)	9.3 (6.2)	4.2 (2.0)	11.8 (6.3)	9.2 (2.4)	
Mean (SD) 6-mo follow-up score	12.7 (6.5)	7.5 (5.4)	3.8 (2.1)	9.7 (5.7)	9.4 (2.5)	
Mean (SD) change†	–2.8 (6.5)	–1.8 (6.0)	–0.4 (2.0)	–2.1 (4.9)	0.3 (3.1)	
Mean (SD) standardized change‡	–0.4 (1.0)	–0.3 (1.1)	–0.2 (1.0)	–0.4 (0.9)	0.1 (1.0)	
Estimated difference (±SE) in 6-mo change between treatment groups (*n* = 168)						
Unadjusted standardized§	–0.3 (0.2)	–0.1 (0.2)	–0.2 (0.2)	–0.2 (0.2)	0.1 (0.2)	–0.1 ± 0.1 (–0.3 to 0.1)
P value for treatment	0.080	0.48	0.23	0.186	0.49	0.24
Adjusted standardized‖	–0.3 (0.2)	–0.1 (0.2)	–0.2 (0.2)	–0.2 (0.2)	0.1 (0.2)	–0.1 ± 0.1 (–0.3 to 0.1)
P value for treatment	0.078	0.49	0.23	0.181	0.53	0.23
Adjusted by using original scale¶	–0.7 (6.5)	–0.6 (5.5)	–0.2 (1.9)	–0.6 (5.1)	–0.3 (3.1)	

* Lower values for baseline and 6-mo follow-up scores indicate more positive outcomes. Negative values for change scores indicate improvement from baseline to 6 mo.

† Change in score = 6-mo follow-up score – baseline score.

‡ Standardized change in score = change in score ÷ SD for each race or ethnic group.

§ Unadjusted standardized differences of change in scores between treatment groups for each individual outcome are estimates of the treatment effect by using simple linear regression models. The treatment effects across outcomes are estimates from simple generalized estimating equation models.

‖Adjusted standardized differences of change between treatment groups for each individual outcome are estimates of treatment effects based on multiple linear regression models adjusted for caregiver relationship to care recipient (spouse or nonspouse) and care recipient's education in Hispanic or Latino people, relationship to care recipient in white or Caucasian people, and relationship to care recipient in black or African-American people. The treatment effects across outcomes are estimates from simple generalized estimating equation models adjusted for the same covariates.

¶ The SD of the pooled change score in the original scale is reported in parentheses.

Appendix Table 5. Benefits of Participating in Study by Race or Ethnicity and Treatment Group*

Question	Hispanic or Latino Participants, *n* (%)		White or Caucasian Participants, *n* (%)		Black or African-American Participants, *n* (%)	
	Control (*n* = 106)	Intervention (*n* = 106)	Control (*n* = 106)	Intervention (*n* = 113)	Control (*n* = 107)	Intervention (*n* = 104)
Do you think you benefited from participating in this project?						
Not at all	20 (22.0)	0 (0.0)	25 (26.9)	0 (0.0)	14 (15.4)	1 (1.1)
Some	37 (40.7)	17 (18.5)	51 (54.8)	36 (35.0)	43 (47.3)	14 (15.6)
A great deal	34 (37.4)	75 (81.5)	17 (18.3)	67 (65.0)	34 (37.4)	75 (83.3)
Did participation in the project help you better understand memory loss and its effect?						
Not at all	17 (18.7)	2 (2.2)	40 (43.0)	7 (6.8)	16 (17.2)	1 (1.1)
Some	38 (41.8)	19 (20.7)	39 (41.9)	36 (35.0)	35 (37.6)	19 (20.9)
A great deal	36 (39.6)	71 (77.2)	14 (15.1)	60 (58.3)	42 (45.2)	71 (78.0)
Did participation in the project help you feel more confident in dealing with care recipient?						
Not at all	24 (26.4)	0 (0.0)	42 (44.7)	2 (1.9)	19 (20.7)	0 (0.0)
Some	38 (41.8)	14 (15.2)	35 (37.2)	40 (38.8)	35 (38.0)	24 (26.7)
A great deal	29 (31.9)	78 (84.8)	17 (18.1)	61 (59.2)	38 (41.3)	66 (73.3)
Did participation in the project help make your life easier?						
Not at all	29 (31.9)	5 (5.5)	61 (64.9)	8 (7.8)	26 (28.0)	3 (3.3)
Some	37 (40.7)	21 (23.1)	25 (26.6)	60 (58.3)	47 (50.5)	37 (40.7)
A great deal	25 (27.5)	65 (71.4)	8 (8.5)	35 (34.0)	20 (21.5)	51 (56.0)
Did participation in the project help your ability to care for care recipient?						
Not at all	24 (26.4)	1 (1.1)	50 (53.8)	8 (7.8)	21 (22.8)	2 (2.2)
Some	38 (41.8)	22 (24.2)	35 (37.6)	48 (46.6)	44 (47.8)	27 (30.0)
A great deal	29 (31.9)	68 (74.7)	8 (8.6)	47 (45.6)	27 (29.3)	61 (67.8)
Did participation in the project help improve care recipient's life?						
Not at all	27 (30.0)	5 (5.5)	67 (71.3)	16 (15.8)	30 (32.3)	5 (5.6)
Some	38 (42.2)	25 (27.5)	20 (21.3)	57 (56.4)	46 (49.5)	52 (57.8)
A great deal	25 (27.8)	61 (67.0)	7 (7.4)	28 (27.7)	17 (18.3)	33 (36.7)
Did participation in the project help to keep care recipient at home?						
Not at all	33 (36.7)	10 (11.2)	73 (78.5)	42 (41.2)	34 (37.4)	17 (19.1)
Some	28 (31.1)	17 (19.1)	8 (8.6)	24 (23.5)	29 (31.9)	25 (28.1)
A great deal	29 (32.2)	62 (69.7)	12 (12.9)	36 (35.3)	28 (30.8)	47 (52.8)

* For all questions, $P < 0.001$ for intervention vs. control.