The Revised Scale for Caregiving Self-Efficacy: Reliability and Validity Studies

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Two samples of family caregivers (Study 1: N = 169; Study 2: N = 145) of cognitively impaired older adults were used to revise, extend, and evaluate a measure of perceived self-efficacy for caregiving tasks. The Revised Scale for Caregiving Self-Efficacy measures 3 domains of caregiving self-efficacy: Obtaining Respite, Responding to Disruptive Patient Behaviors, and Controlling Upsetting Thoughts. The 3 subscales show strong internal consistency and adequate test–retest reliability. Construct validity is supported by relationships between these 3 facets of perceived caregiving efficacy and depression, anxiety, anger, perceived social support, and criticism expressed in speech samples. The Revised Scale for Caregiving Self-Efficacy has potential uses for both research and clinical purposes.

The construct of self-efficacy has been widely used among researchers to help explain a variety of reactions to long-standing, stressful experiences (Bandura, Taylor, Williams, Mefford, & Barchas, 1985; Brady, Tucker, Alfano, Tarrant, & Finlayson, 1997; Cappelli et al., 1989; Cozzarelli, 1993; Gill, Williams, Williams, & Hale, 1998; Resnick, 1998; Sullivan, LaCroix, Russo, & Katon, 1998). Self-efficacy has been conceptualized as a person’s belief about her or his ability to organize and execute courses of action to manage given situations (Bandura, 1997). Self-efficacy beliefs have diverse effects on psychosocial functioning: They (a) determine whether coping behaviors will be initiated, how much effort will be expended, and how long effort will be sustained in the face of obstacles and aversive experiences and (b) affect vulnerability to emotional distress and depression (Bandura, 1997).

Although sometimes confused with global self-esteem, locus of control, or self-confidence, self-efficacy is a separate conceptual scheme that pertains to specific judgements that one can perform competently and capably in given situations. Self-efficacy is not a global entity, but rather varies across activity domains, task demands, and situational characteristics. Gerontologists have used self-efficacy to predict different aspects of functioning in older adults, including active grandparenting (King & Elder, 1998), intellectual functioning (Berry, West, & Dennehey, 1989), functional status following a decrease in physical capacity (Mendes de Leon, Seeman, Baker, Richardson, & Tinetti, 1996), physical activity in osteoarthritis patients (Rejeski, Craven, Ettinger, McFarlane, & Shumaker, 1996), and adherence to exercise following a structured exercise program (McAuley, Lox, & Duncan, 1993). Despite the fact that the self-efficacy model has been widely used in research on chronic stress and coping, this construct has only recently been applied to help explain the experiences of family caregivers of persons with dementia (Gignac & Gottlieb, 1996; Zeiss, Gallagher-Thompson, Lovett, Rose, & McKibbin, 1999). This recent work suggests that self-efficacy theory holds significant promise for explaining the variability in family members’ ability to cope with the chronic demands and challenges of caregiving.

Previous research on stress proliferation suggests that a personal sense of control or mastery plays several important roles in dementia caregivers. In their 3-year longitudinal study of caregiving processes and outcomes, Aneshensel, Pearlin, Mullan, Zarit, and Whitlatch (1995) found that a global sense of mastery and personal control had a direct effect of reducing depression over time. No support was found for mastery beliefs either mediating or moderating the effects of care-related stressors on depression. However, increased mastery over time also had indirect effects through lessening a sense of role captivity (i.e., feeling trapped in an unwanted role) and increasing perceived competence as a caregiver, both of which were related to depression. Conceptualized as a secondary intrapsychic strain, perceived caregiver competence was related to levels of family conflict and to role captivity, which were in turn associated with problematic patient behaviors (Aneshensel et al., 1995). These findings suggest that beliefs about competence and one’s ability to affect events can have powerful and varied effects for caregivers of dementia patients. The measures used, however, were global in nature (i.e., four-item scales with ratings for general statements) and quite different from the conceptualization of self-efficacy discussed previously. This measurement strategy does not permit a closer examination of the role of context in influencing responses to these general items and limits our ability to predict caregiving-related outcomes. Bandura (1997) suggests that general efficacy beliefs do not create or determine specific efficacy beliefs. More specific caregiving-related
measures of self-efficacy may increase our ability to understand these complex relationships and selectively focus on different aspects for intervention.

Specifically, several concerns pertaining to caregiving can readily be identified and tested using the self-efficacy model. For example, one would expect that individuals with high self-efficacy expectations regarding their own ability to handle the challenges of caregiving effectively would be more likely to assume the role of primary caregiver following a family member’s dementia diagnosis. These individuals would also be expected to persist in providing care as the patient’s condition worsens and caregiving tasks become increasingly difficult (i.e., rather than seeking institutional placement), handle the caregiving role with relatively little emotional distress and depression, and require relatively little support to maintain their own physical and mental health. These effects occur in the context of an interaction of cognitions, affective reactions, and behaviors. In challenging situations, persons with low self-efficacy beliefs dwell on their personal deficiencies, the difficulties of the task, and the negative consequences of failure. Focus on these negative cognitions reduces motivation to initiate an activity, affects task persistence, and leads to negative affective states including depression, anxiety, and anger (Bandura, 1997). In addition, it may be vitally important to understand how self-efficacy beliefs for specific aspects of caregiving tasks influence individual caregivers. Understanding each caregiver’s profile of beliefs about her or his abilities may identify areas of vulnerability in handling the myriad demands of a caregiving situation. Such information could guide professionals to target areas for improvement. Psychoeducational interventions targeting personal mastery of relevant skills could be effective ways to promote caregiver self-efficacy and well-being.

Before these and related hypotheses can be tested, the first challenge is to develop an adequate measure of caregiver self-efficacy across relevant domains. Although the work by Gignac and Gottlieb (1996) is an interesting attempt to examine efficacy beliefs in caregivers, their methodology involves a laborious strategy of extracting efficacy-related comments from narrative discussion. We believe that a simpler, more efficient means of assessing caregivers’ efficacy beliefs is needed. Zeiss and colleagues (1999) have made recent progress toward this goal by developing preliminary measures of self-efficacy that better reflect difficult behavioral and emotional challenges.

The preliminary scale development by Zeiss and colleagues (1999) reveals the advantages of viewing caregiver strengths and needs from a self-efficacy perspective. Results from item analyses suggested that the two scales reflect different caregiving domains and can be measured reliably. Examination of validity concerns indicated that the self-efficacy scales were related to indexes of caregiver distress. However, there were limitations that raised the need for further refinement of the scales: Some ceiling effects were noted, with caregivers rating themselves as highly confident on items that had been perceived as challenging during item development. Zeiss and colleagues (1999) suggested that future revisions of the measure include a broader range of items that better reflect difficult behavioral and emotional challenges.

Finally, items included in the preliminary measure did not reflect caregiver self-efficacy for handling distressing and unhelpful thoughts about their caregiving situation. According to Bandura (1997), efficacy beliefs are involved not only in the exercise of control over action, but also with the regulation of cognitions and affective states. The more efficacious caregivers feel about their ability to control distressing thoughts, the more likely they are to do so in a consistent and persistent manner. This is particularly relevant because one of the important aspects of health behavior change, as conceptualized by the cognitive–behavioral model, involves gaining control over disturbing and intrusive thoughts. Cognitive changes can then lead to affective regulation and behavior modification. Addressing unhelpful thoughts associated with providing care is particularly relevant to a caregiving population for which cognitive and emotional challenges may be frequent and ongoing.

**Purpose of Investigation**

The current research was conducted to correct limitations of the preliminary caregiving self-efficacy measures by developing and testing a revised instrument. Because some of the steps toward healthy behavioral change include control over one’s cognitions, items reflecting the ability to manage distressing thoughts were included. This extension of self-efficacy to the regulation of one’s own consciousness provides a broader assessment of caregiving self-efficacy and the means for guiding prevention and treatment interventions for caregivers.

Two independent samples consisting of family caregivers for individuals with dementia were used to develop the revised instrument. Data from Study 1 were used to assist in (a) item selection, (b) investigation of the structural and psychometric properties of the measure, and (c) an examination of initial support for construct validity. Study 2 data provided an opportunity to confirm the structural characteristics and psychometric properties of the scale and gather further evidence for construct validity using multimethod assessment strategies.

**Study 1**

**Methods**

**Participants**

The first study was conducted in the San Francisco Bay area. The sample consisted of 169 women who were caring...
for a family member with Alzheimer’s disease or another dementing disorder (as confirmed by a physician’s diagnosis). These caregivers were part of a sample of help-seeking caregivers participating in an ongoing randomized trial of psychoeducational classes designed to relieve caregiver distress. Participants were recruited using a variety of means including newspaper, radio, and television announcements; targeted mailings; and contact with churches, senior centers, medical clinics, and senior service professionals. Women 50 years or older who were primary caregivers of a parent, parent-in-law, or spouse with Alzheimer’s disease or another dementing disorder were accepted into the study. Demographic characteristics of the participants in Study 1 are shown in Table 1; the sample consisted primarily of wives (57%) and daughters (39%) who had been providing care for almost 4 years on average. Participants were generally well educated, in good health, and Caucasian. Characteristics of the care recipients are displayed in Table 2. The majority of these individuals had cognitive impairments secondary to Alzheimer’s disease or stroke, were primarily in the middle stages of dementia, and required assistance with an average of two activities of daily living.

Procedure

The Study 1 data used in this article were collected in a face-to-face administration with an additional packet of self-report psychosocial measures returned by mail. Only data collected prior to participants’ involvement in the psychoeducational intervention were included in analyses.

Measures

Scale for Caregiving Self-Efficacy.—The 14 items from the original Self-Care Self-Efficacy and Problem-Solving

Table 1. Caregivers’ Characteristics

<table>
<thead>
<tr>
<th>Average characteristics</th>
<th>Study 1 (N = 169)</th>
<th>Study 2 (N = 145)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>63.8 (8.3)</td>
<td>60.2 (13.3)**</td>
<td></td>
</tr>
<tr>
<td>Years of Education</td>
<td>14.5 (2.0)</td>
<td>13.6 (2.4)****</td>
</tr>
<tr>
<td>Months of Caregiving</td>
<td>45.9 (45.3)</td>
<td>35.6 (27.8)**</td>
</tr>
<tr>
<td>Beck Depression Inventorya</td>
<td>13.0 (6.5)</td>
<td>8.4 (7.1)*****</td>
</tr>
<tr>
<td>Female</td>
<td>100%</td>
<td>80***</td>
</tr>
<tr>
<td>Relationship to Care Recipient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse</td>
<td>56.8</td>
<td>46.2</td>
</tr>
<tr>
<td>Child</td>
<td>39.1</td>
<td>46.2</td>
</tr>
<tr>
<td>Other</td>
<td>4.1</td>
<td>7.6</td>
</tr>
<tr>
<td>Median Income (in $1000s)</td>
<td>30–40</td>
<td>20–30</td>
</tr>
<tr>
<td>Ethnic Background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>89.4</td>
<td>84***</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.4</td>
<td>0</td>
</tr>
<tr>
<td>African American</td>
<td>2.1</td>
<td>16</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>2.2</td>
<td>0</td>
</tr>
<tr>
<td>Perceived Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>2.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Fair</td>
<td>16.0</td>
<td>20.8</td>
</tr>
<tr>
<td>Good</td>
<td>56.2</td>
<td>45.8</td>
</tr>
<tr>
<td>Excellent</td>
<td>25.4</td>
<td>27.1</td>
</tr>
</tbody>
</table>

Table 2. Dementia Patient Characteristics

<table>
<thead>
<tr>
<th>Average characteristics</th>
<th>Study 1 (N = 169)</th>
<th>Study 2 (N = 145)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>77.9 9.6</td>
<td>77.3 9.0</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>12.8 3.6</td>
<td>11.9 3.2**</td>
</tr>
<tr>
<td>Folstein Mini-Mental State Examinationa</td>
<td>14.2 7.0</td>
<td>12.6 7.2</td>
</tr>
<tr>
<td>Activities of daily living</td>
<td>2.2 1.9</td>
<td>2.3 1.9</td>
</tr>
<tr>
<td>Community services used</td>
<td>1.8 1.4</td>
<td>1.7 1.3</td>
</tr>
<tr>
<td>Dementia diagnosis (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>55%</td>
<td>77***</td>
</tr>
<tr>
<td>Stroke/Multi-infarct</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>Parkinson’s</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Other dementia</td>
<td>15%</td>
<td>9%</td>
</tr>
</tbody>
</table>

a| Normal score = 30. |
*p ≤ .05; **p ≤ .01; ***p ≤ .001.

Self-Efficacy scales (Zeiss et al., 1999) were pooled; an additional 37 items were developed and added. This revision was done to expand the number of caregiving situations and to add the new dimension reflecting caregivers’ ability to control unpleasant thoughts about caregiving. The additions provided a final pool of 51 items distributed across three hypothesized caregiving domains: (a) self-care and obtaining respite, (b) responding to disruptive patient behaviors, and (c) controlling upsetting thoughts activated by caregiving activities. For each item, caregivers were asked to rate their level of confidence (from 0% to 100%) that they could perform the activity if they gave it their best effort. Interview instructions emphasized the importance of honest appraisals of capability, rather than focusing on intention or past performances. To increase the sensitivity and predictive power of the measure, items reflect varying levels of challenge in each specific domain and are arranged in order of ascending difficulty (see Appendix for administration instructions).

Dementia diagnosis.—To ensure that all participants were in fact dementia caregivers, confirmation of a physician’s diagnosis of Alzheimer’s disease or another dementing disorder for all care recipients was obtained. The Folstein Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) was used to assess each patient’s level of cognitive impairment. The MMSE has been shown to have high reliability and construct validity for moderate-to-severe cognitive impairment (Tombaugh & McIntyre, 1992). Severity of general impairment of the frail elder was assessed using the Activities of Daily Living (ADL; Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963). The ADL measures caregivers’ reports of their frail elder’s functioning in basic activities such as bathing, toileting, feeding oneself, walking, and so forth. Scores range from 0 to 6; higher scores indicate greater impairment.

Additional psychosocial measures.—The questionnaire collecting demographic information included questions on age, education, the relationship to the elder (e.g., wife, daughter, other), and length of time as a caregiver. Perceived health was assessed by the item “How would you rate your overall health at the present time?” (Excellent,
good, fair, or poor; Mossey & Shapiro, 1982). In addition to a demographics questionnaire, caregivers were asked to list all formal services that they and their relative were receiving. Self-reported levels of anxiety were assessed with the Trait Anxiety Inventory (Spilberger, 1983), and self-reported levels of anger were assessed with the Trait Anger Expression Inventory (Spilberger, 1988). The Trait Anger Expression Inventory assesses anger experienced often (i.e., “How I generally feel”) and consists of 10 items reflecting angry reactions and angry temperament. When used with adult samples, the Trait Anxiety and Trait Anger scales have good internal consistency and test–retest reliability (Jacobs, Latham, & Brown, 1988). Reliability and validity for these scales when used with older adults have not yet been established. Depression was assessed with the Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961); the BDI consists of 21 symptoms of depression, including cognitive, behavioral, and vegetative symptoms. This measure is considered to have adequate reliability and concurrent validity when used with older adults (Gallagher, 1987).

Perceptions of availability of social support in the past month were assessed with the Arizona Social Support Interview Schedule (ASSIS; Barrera, 1980; Barrera, Sandler, & Ramsay, 1981). In addition to other aspects of social support, this interview measured the number of people (e.g., family, friends, neighbors, clergy, professionals) perceived as available to provide support in each of six domains. Rivera, Rose, Futterman, Lovett, and Gallagher-Thompson (1991) found the ASSIS to have high internal consistency when used with female caregivers; convergent and discriminant validity when used with older adults has not yet been established.

Hypotheses

Two levels of hypotheses were tested, covering psychometric and construct validity aspects of scale development. Psychometrically, we expected that three subscales could be identified that had adequate internal consistency and factor structure. These factors were expected to reflect the domains identified conceptually: ability to obtain respite from caregiving, ability to respond to disruptive patient behaviors, and ability to control upsetting thoughts about caregiving.

If these scales could be constructed with acceptable psychometric properties, then hypotheses concerning the construct validity of the subscales would be tested. Differential predictions about the relationships between the three hypothesized subscales and other psychosocial factors were generated. Specifically, we expected size of the perceived available social-support network to be more closely associated with self-efficacy for obtaining respite than with the other two subscales. Social cognitive theory posits a bidirectional relationship between perceived coping efficacy and social support (Bandura, 1997). Indeed, the evidence shows that perceived social efficacy fosters the development of supportive relationships (Holahan & Holahan, 1987) and social support enhances perceived self-efficacy (Cutrona & Troutman, 1986; Major, Mueller & Hildebrandt, 1985). Although not synonymous with support, efficacy for obtaining respite from family and friends is directly connected to one’s sense of others as available to assist in a variety of ways. Anger was hypothesized to be more strongly associated with self-efficacy for calmly reacting to disruptive behaviors than with the other two subscales. This relationship is also conceptualized to be bidirectional: (a) Generally high levels of anger may reduce one’s confidence in calmly responding to difficult behaviors, and (b) lower perceived capability to manage difficult patient behaviors will reduce the use of anger-management strategies, leading to increased anger. Anxiety was expected to be more strongly related to self-efficacy for controlling upsetting thoughts than to the other subscales. This domain of caregiving taps into a variety of worries commonly expressed by caregivers. Perceived difficulties in directly confronting and regulating such thoughts lead to decreased use of cognitive and behavioral coping strategies that are effective in reducing anxiety. Finally, low beliefs in self-efficacy across a variety of domains lead to a sense of failure and other negative cognitions about the self (Bandura, 1997). For this reason, we hypothesized that all three forms of self-efficacy would show a negative relationship with depression.

Results

Item Analysis

We followed Crocker and Algina’s (1986) recommendations for scale reduction. The distributions (i.e., mean, standard deviation, skewness, kurtosis) were examined for each of the 51 items of the Self-Efficacy (SE) for Caregiving Scale; items with high skewness, kurtosis, or with very low standard deviations were eliminated. This reduced the total item pool from 51 to 34. Separate internal-consistency analyses were conducted for items in each of the three hypothesized subscales to eliminate any items that resulted in a reduced Cronbach’s alpha for that subscale. This required removal of only 1 item from the hypothesized Obtaining Respite subscale.

An oblique factor analysis (i.e., principal axis factoring; promax) was conducted on the 33 items. Items that failed to load .3 or higher on one factor, or that loaded greater than .3 on two or more factors, were eliminated; this resulted in dropping four items. A second factor analysis with the same extraction and rotation methods was run on the remaining 29 items, resulting in a nine-factor solution. Fifteen of the items loaded significantly on one of the first three factors, and 14 of the items loaded significantly on one of the last six factors (i.e., the last six factors each had two to three items with loadings greater than or equal to .3). These 14 items were eliminated to create a cleaner and more interpretable factor structure. The third and final factor analysis resulted in a solution consisting of 15 items loading on three factors, accounting for 62% of the variance. Table 3 lists the factors, their item content, their factor loading, and the eigenvalues for each factor. On the basis of these data, three subscales are proposed: SE = Obtaining Respite, SE = Controlling Upsetting Thoughts About Caregiving, and SE = Responding to Disruptive Patient Behaviors.

Subscale Distributions

All three of the subscales were normally distributed and had acceptable levels of skewness; responses covered the
Table 3. Composition and Loadings for Self-Efficacy (SE) Items for Study 1 (S1) and Study 2 (S2)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Loading</th>
<th>Eigenvalues (% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S1</td>
<td>S2</td>
</tr>
<tr>
<td>1. SE-Obtaining Respite</td>
<td>4.76 (32)</td>
<td>4.59 (31)</td>
</tr>
<tr>
<td>...Stay with care recipient for a day when you have errands to be done</td>
<td>.94</td>
<td>.90</td>
</tr>
<tr>
<td>...Stay with care recipient for a day when you feel the need for a break</td>
<td>.85</td>
<td>.84</td>
</tr>
<tr>
<td>...Stay with care recipient for a day when you need to see your doctor</td>
<td>.71</td>
<td>.71</td>
</tr>
<tr>
<td>...Do errands for you</td>
<td>.64</td>
<td>.74</td>
</tr>
<tr>
<td>...Stay with care recipient for a week when you need time for yourself</td>
<td>.58</td>
<td>.41</td>
</tr>
<tr>
<td>2. SE-Controlling Upsetting Thoughts About Caregiving</td>
<td>3.0 (20)</td>
<td>2.8 (19)</td>
</tr>
<tr>
<td>...What a good life you had before care recipient’s illness and how much you’ve lost</td>
<td>.86</td>
<td>.72</td>
</tr>
<tr>
<td>...What you are missing or giving up because of care recipient</td>
<td>.83</td>
<td>.79</td>
</tr>
<tr>
<td>...Future problems that might come up with care recipient</td>
<td>.71</td>
<td>.59</td>
</tr>
<tr>
<td>...Unpleasant aspects of taking care of care recipient</td>
<td>.67</td>
<td>.62</td>
</tr>
<tr>
<td>...How unfair is it that you have to put up with this situation</td>
<td>.59</td>
<td>.83</td>
</tr>
<tr>
<td>3. SE-Responding to Disruptive Patient Behaviors</td>
<td>1.6 (10)</td>
<td>1.7 (11)</td>
</tr>
<tr>
<td>When care recipient asks you four times in the first hour after lunch when lunch is, can answer without raising your voice</td>
<td>.89</td>
<td>.94</td>
</tr>
<tr>
<td>When he/she interrupts you for the fourth time while you’re making dinner, can respond without raising your voice</td>
<td>.76</td>
<td>.66</td>
</tr>
<tr>
<td>When you get angry because he/she repeats the same question over and over, can say things to yourself that calm you down</td>
<td>.62</td>
<td>.53</td>
</tr>
<tr>
<td>When he/she forgets your daily routine and asks when lunch is right after you’ve eaten, can answer without raising your voice</td>
<td>.58</td>
<td>.75</td>
</tr>
<tr>
<td>When he/she complains to you about how you’re treating him/her, can respond without arguing back</td>
<td>.35</td>
<td>.30</td>
</tr>
</tbody>
</table>

possible range of scores. Tests for internal consistency yielded high values; Cronbach’s alphas were all greater than .80. Table 4 displays the intercorrelations between the three self-efficacy subscales and measures of depression, anxiety, anger, and social support. Psychometric data on the distributions and internal consistency for each scale are also shown.

As seen in Table 4, the three subscales are modestly correlated with each other. The SE-Obtaining Respite subscale shows low correlations with the two other self-efficacy subscales ($r = .09$ and .15), and SE-Responding to Disruptive Patient Behaviors was significantly correlated with SE-Controlling Upsetting Thoughts ($r = .52$). Use of a total score reflecting the sum of all 15 items is contrary to the view of self-efficacy as domain specific and can mask significant relationships between subscales and other constructs. For these reasons, we strongly advocate using scores for the three subscales rather than a total score.

**Initial Evidence for Construct Validity**

Support for construct validity of the subscales was based on differential predictions about the relationships between the three subscales and other psychosocial factors. Following the hypotheses outlined earlier, we examined correlations between the three subscales and measures of depression, anger, anxiety, and support network for evidence of convergent and discriminant validity of the self-efficacy subscales. The correlations in bold in Table 4 show that, as predicted, depression was significantly correlated with all three self-efficacy subscales. Trait anger was significantly related to SE-Responding to Disruptive Behaviors ($r = -.41$), and trait anxiety was significantly associated with SE-Controlling Upsetting Thoughts ($r = -.62$). Contrary to predictions, trait anxiety also showed a strong negative relationship to SE-Responding to Disruptive Behaviors ($r = -.53$). Although the social network size perceived to be available was significantly related to SE-Obtaining Respite, this correlation was very modest ($r = .16$).

**Study 2**

**Methods**

**Participants**

The second study was conducted in the greater metropolitan St. Louis area. This sample consisted of 145 women and men who were caring for a relative or close friend with Alzheimer’s disease or another dementing disorder (as confirmed by a physician’s diagnosis). These caregivers were invited to participate in a measurement development study and were not recruited as part of any psychosocial-intervention research. Recruitment strategies were generally similar to those used in Study 1.

Demographic characteristics of the participants in Study 2 are shown in Table 1. Because depression was assessed differently in the two samples (in Study 1 with the BDI; in Study 2 with the short form BDI [BDI-SF]), Study 2 depression scores were converted by prorating them before they were compared with Study 1 depression scores. It can be seen that when compared with the sample in Study 1, participants in Study 2 were likely to be younger, $t(232) = 2.8$, $p \leq .01$, less well educated, $t(284) = 3.6$, $p \leq .001$, less depressed, $t(281) = 5.6$; $p \leq .001$, less likely to be female, $\chi^2(1, N = 314) = 37.2, p \leq .001$, and less likely to be Caucasian, $\chi^2(3, N = 304) = 22.8, p \leq .001$ and had been caregiving for a shorter period of time, $t(284) = 2.5; p \leq .05$. The caregivers in the two studies were similar in income level, perceived health, and relationship to the care recipient. Characteristics of the care recipients in Study 2 are displayed in Table 2. The cognitively impaired patients in the two studies were similar in age, mental status scores, assistance required in activities of daily living, and number of community services used. Patients in Study 2 differed from patients in Study 1 by being less well educated, $t(304) = 2.5, p \leq .01$, and more likely to have Alzheimer’s disease...
as the primary diagnosis, $\chi^2(3, N = 314) = 39.0, p \leq .001$. Differences between the two studies in type of dementia diagnosis may be due to a higher reliance on the local chapter of the Alzheimer’s Association for recruitment in Study 2.

**Procedure**

Study 2 data used in this article were collected in a face-to-face administration with an additional packet of self-report psychosocial measures returned by mail. Because research has demonstrated participant-selection biases in caregiver studies conducted in university and medical settings (Dura & Kiecolt-Glaser, 1990), all data were collected in participants’ homes or a location of their choice.

**Measures**

**Scale for Caregiving Self-Efficacy.**—The same pool of 51 items used in Study 1 was also administered orally and face-to-face in Study 2. To establish test–retest reliability, the first 100 participants were reassessed with the Scale for Caregiving Self-Efficacy 2 weeks after the first assessment. The entire sample was not assessed twice because of the costs of conducting additional administrations; this means that the lower sample size for Time 2 data does not reflect participants’ refusing to participate in a second testing session. All participants who were asked to complete a second testing session agreed to do so and were assessed.

**Dementia diagnosis.**—The approach in Study 2 for determining dementia diagnosis and severity of cognitive impairment was the same as the approach used in Study 1.

**Psychosocial measures.**—Demographic information and trait anger were measured in a process identical to the measurement of these constructs in Study 1. Depression was measured with the 13-item BDI-SF (Beck & Beck, 1972; Beck, Rial, & Rickels, 1974). Use of the short form is supported by Scogin, Beutler, Corblishley, and Hamblin’s (1988) findings of adequate internal reliability, criterion group validity, and diagnostic sensitivity when used with depressed and nondepressed older adults. Because depression was assessed differently in the two samples, Study 2 depression scores were converted by prorating them before they were compared with Study 1 depression scores. Self-reported anxiety was assessed with the brief version of the Multiple Affect Adjective Checklist (MAACL)-Anxiety Subscale (Zuckerman & Lubin, 1965). In a review of measures for assessing affect in older adults, the MAACL was shown to have adequate internal and test–retest reliability (Gallagher, 1987). Perceptions of the availability of social support from family were assessed with the Perceived Social Support–Family Scale (Procidano & Heller, 1983). This measure has a distinct advantage over the social support measurement strategy used in Study 1 in that items are specific to families, who are most likely to assist with respite needs. Items reflect perceived support across a variety of domains (e.g., “My family gives me the moral support I need,” “Members of my family are good at helping me solve problems,” etc.). To expand variability and prevent ceiling effects, the original response options of “yes” or “no” were replaced with a rating scale from 1 (never) to 5 (always). Psychometric characteristics of this scale when used with older adults have not yet been established. Data presented in Table 5 indicate that all psychosocial measures had adequate internal consistency when used in Study 2. Because of high skewness, the trait anger score and the pro-rated BDI-SF were each transformed using a logarithmic function before being used in analyses.

**Five Minute Speech Samples.**—The construct of expressed emotion (EE) developed out of family-interaction research examining the role of family environment on schizophrenia. As an index combining criticism and emotional overinvolvement, expressed emotion ratings of family members can be obtained from The Five Minute Speech Sample (FMSS). Unlike the original Camberwell Family Interview (Vaughn & Leff, 1976), examiners do not have to be trained in the coding system to administer the FMSS task (Magana et al., 1986). Interrater reliability for the FMSS coding pro-
Proceedures has been generally strong, with kappas ranging from .84 to 1.0 for the majority of raters (Leeb et al., 1991). Research has shown a reasonably high correspondence (75% agreement) between the Camberwell Family Interview and the FMSS (Magana et al., 1986). The FMSS coding system has been used in studies with a variety of populations, including families of patients with schizophrenia (Hahlweg et al., 1989; Magana et al., 1986), unipolar depression (Fiedler, Leeb, Ernst, & Kohlhoff, 1994), bipolar mood disorder (Miklowitz, Goldstein, Neuchterlein, Snyder, & Mintz, 1988), eating disorders (Van Furth, Van Strien, Van Son, & Van Engeland, 1993), head injury (Jacobs, 1990), and Alzheimer’s disease (Vitaliano, Becker, Russo, Magana-Amato, & Maiuro, 1989; Vitaliano, Young, Russo, Romano, & Magana-Amato, 1993). Vitaliano and colleagues (1998) used the FMSS in their research with spousal caregivers of Alzheimer’s patients and found that high EE ratings in caregivers were associated with more depression, more burden, and less anger control. Dementia caregivers’ EE ratings were relatively stable (82%) over 15 to 18 months, were strongly linked to the ratings of criticisms in the speech sample, and were predictive of increased negative behaviors in the dementia patient over time (Vitaliano et al., 1993). On the basis of these findings, we obtained 5-min speech samples in the present study to examine criticism ratings and their relationship with self-efficacy.

At the beginning of the initial assessment session, each caregiver was audiotaped for 5 min while describing her or his family member who has dementia. The specific instructions were identical to those described by Magana-Amato (1998) and consisted of the following script:

I’d like to hear your thoughts about your [relative] in your own words and without my interrupting you with any questions or comments. When I ask you to begin, I’d like you to speak for 5 minutes, telling me what kind of person your [relative] is and how the two of you get along together. After you have begun to speak, I prefer not to answer any questions. Are there any questions you would like to ask before we begin?

The audiotapes and typed transcriptions for the speech samples of the 100 caregivers participating in both assessment times were sent to the University of California, Los Angeles, Family Project, which is the laboratory with the most expertise in the FMSS coding system. The entire sample was not coded because of the financial costs of having the samples rated at an outside laboratory. Eight of the audiotapes sent for rating were not coded for a variety of reasons, including poor audio quality (n = 4), sample length not sufficiently long (i.e., caregiver stopped speaking after 2 to 3 min; n = 2), and administrator gave improper instructions (n = 2). This resulted in a subset of 92 samples that were rated in five categories: initial statement, relationship, criticism, dissatisfaction, and emotional overinvolvement.

On the basis of Hahlweg and colleagues’ (1989) and Vitaliano and colleagues’ (1993) findings of a strong relationship between criticism ratings and patients’ behaviors, high critical subgroup (Crit) ratings and borderline critical (b/Crit) ratings were specifically examined in the current study. In accordance with FMSS coding procedures, caregivers were placed in a Crit subgroup if they had any one of the following: a negative initial statement, a negative relationship rating, or one or more criticisms on the basis of tone and/or content. Caregivers were placed in the b/Crit subgroup if they had one or more statements of dissatisfaction with the relative’s unfavorable behaviors or characteristics (i.e., statements of dissatisfaction are not harsh enough to meet the criticism criteria). Caregivers were placed in the low critical subgroup if they met none of the above criteria. In the current study, the Crit and b/Crit subgroups were combined into one group; this was based on recommendations in the FMSS manual indicating that b/Crit and Crit subgroups may be combined when coding individuals who are reluctant to express strong attitudes about their relatives (Magana-Amato, 1998). This particularly fits with our experience of dementia caregivers. Analyses conducted in the present study compare caregivers in the Crit–b/Crit subgroup to those in the low criticism subgroup. A single rater conducted ratings used in the present study. However, a reliability check for all subgroup ratings by this rater and the author of the FMSS man-

Table 5. Means, Standard Deviations, Ranges, Internal Consistency, and Correlations Between Self-Efficacy (SE) Subscales and Psychosocial Variables (Study 2; N = 145)

<table>
<thead>
<tr>
<th>Variable</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SE-Obtaining Respite</td>
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<tr>
<td>2. SE-Responding to Behaviors</td>
<td>.16</td>
<td>.43**</td>
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<tr>
<td>3. SE-Controlling Upsetting Thoughts</td>
<td>.18*</td>
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<tr>
<td>4. Short Form Beck Depression Inventory</td>
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<td>5. Spielberg’s Trait Anger</td>
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<tr>
<td>6. MAACL Anxiety-brief</td>
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<tr>
<td>7. Perceived social support-family</td>
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</tbody>
</table>

Note: MAACL = Multiple Affect Adjective Checklist. Entries in bold confirm hypotheses. *p ≤ .05; **p ≤ .01; ***p ≤ .001.
nal resulted in perfect interrater reliability ($\kappa = 1.0$; S. A. Zaden, personal communication, May 27, 1999).

**Hypotheses**

As in Study 1, we tested two levels of hypotheses, covering psychometric and construct validity aspects of scale development. Psychometrically, we expected to be able to replicate the factor structure that was found using Study 1 data, resulting in the identification of three subscales with adequate internal consistency and test–retest reliability. The same relationships anticipated in Study 1 as supporting construct validity (i.e., between the self-efficacy subscales and measures of depression, anger, anxiety, and social support) were also expected in Study 2. In addition, we wanted to use a multimethod approach (Campbell & Fiske, 1959) to demonstrate construct validity. We hypothesized that caregivers placed in the Crit–b/Crit subgroup on the basis of their 5 min speech samples would have lower scores for SE-Responding to Disruptive Patient Behaviors and SE-Controlling Upsetting Thoughts than would caregivers in the low critical subgroup.

**RESULTS**

**Factor Analysis**

The 15 self-efficacy items selected in Study 1 were examined with Study 2 data. Table 3 displays the eigenvalues and proportion of variance for the three identified factors and the factor loadings for individual items. The same oblique analysis strategy used in Study 1 resulted in a very similar factor structure for Study 2 data. Although the factor loading for the last item of the SE-Responding to Disruptive Patient Behaviors subscale just meets the .30 criteria for inclusion, it was retained in the final version to enhance the subscale’s ability to reflect a range of caregiving experiences.

A structural equations approach to confirmatory factor analysis was also used to examine the relative fit of the simple three-factor solution to Study 2 data. The model that was tested specified three factors, with each item loading on one factor only. Several indices were examined to evaluate the fit of the structural model. A value of less than 3.0 for a chi square divided by its degrees of freedom (Carmines & McIver, 1981) is a commonly used indication of adequate fit. In the current model, this index was $\chi^2(138.62)/df(87) = 1.59$, which was clearly in the acceptable range of values. As a more conservative estimate, Bentler’s comparative fit index (CFI) was used. This index has several advantages over other indexes: a 0 to 1 range, a small sampling variability, and the ability to estimate the relative difference in noncentrality of interest (Bentler, 1990). A Bentler CFI of .90 or greater is viewed as supportive of an adequate fit; the CFI for Study 2 data was .93. Finally, we examined the $t$ values for the factor loadings; these values were all significant, with coefficients ranging from 3.7 to 13.3. The mean $t$ value for the factor loadings was 9.0. In total, these results support the three-factor solution for the 15 self-efficacy items.

**Distributions and Reliability**

The psychometric characteristics of the three self-efficacy subscales using Study 2 data are shown in Table 5, along with information about the measures of depression, anger, anxiety, and social support. In a pattern similar to that found in Study 1, the self-efficacy subscales showed strong internal consistency. Two-week test–retest reliability scores for the subscales were obtained in Study 2 (SE-Obtaining Respite: $r_{12} = .76$, SE-Responding to Disruptive Patient Behaviors: $r_{12} = .70$, SE-Controlling Upsetting Thoughts: $r_{12} = .76$). These reliability coefficients are in the acceptable range, especially given our view of self-efficacy as different than global, traitlike constructs.

**Convergent and Discriminant Validity**

**Relationships with depression, anger, anxiety, and social support.**—Strong support for convergent and discriminant validity was found with data from Study 2, as can be seen in Table 5. The correlations that confirm the hypothesized patterns are given in bold. The magnitudes of the obtained correlations correspond to the hypothesized patterns: Anxiety, depression, and anger accompany the various facets of perceived self-efficacy, operating in concert. Although depression was significantly related to all three self-efficacy subscales, anger was most related to SE-Responding to Disruptive Patient Behaviors and anxiety was closely associated with SE-Controlling Upsetting Thoughts. The perceived efficacy to gain relief from the emotional strain of caregiving largely by social means was also uniquely related to perceived social support.

**Relationship between self-efficacy subscales and speech samples.**—Using independent sample $t$ tests, caregivers in the Crit–b/Crit group ($n = 34$) were compared with caregivers in the low criticism group ($n = 58$) on their self-efficacy subscales. As predicted, Crit–b/Crit caregivers were significantly lower on SE-Responding to Disruptive Behaviors, $t(90) = 3.61, p = .001$, and on SE-Controlling Upsetting Thoughts, $t(90) = 2.14, p = .05$ than were caregivers in the low criticism group. As anticipated, the two groups did not differ on SE-Obtaining Respite scores, $t(90) = 3.8, p = .72$. Group means for the three self-efficacy subscales are displayed in Table 6.

**Concurrent validity.**—Responses from participants in the two studies were compared with each other as a final method of documenting construct validity. Caregivers in Study 1 were responding to an initial assessment before participating in an intervention study for distressed caregivers. Participants in Study 2, however, were not involved in a

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Table 6. Relationship Between Self-Efficacy (SE) Subscales and Expressed Emotion (EE) Critical Ratings (Study 2; $n = 92$)

<table>
<thead>
<tr>
<th>EE Critical Subgroups</th>
<th>SE for Obtaining Respite $M$</th>
<th>SE for Responding to Disruptive Patient Behaviors $M$</th>
<th>SE for Controlling Upsetting Thoughts $M$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/borderline ($n = 33$)</td>
<td>58.3</td>
<td>62.8</td>
<td>65.8</td>
</tr>
<tr>
<td>Low ($n = 59$)</td>
<td>60.6</td>
<td>78.4</td>
<td>74.1</td>
</tr>
</tbody>
</table>

*Differs from Low group at $p < .05$; **differs from Low group at $p < .001$.**
treatment study and were expected to show less emotional distress. These differences are supported by the significant differences in depression scores for the two samples, shown in Table 1. It would be expected, therefore, that caregivers in Study 1 would report lower levels of self-efficacy for caregiving in the three domains measured by this scale. Results from a multivariate analysis of variance support this hypothesis, $F(1,275) = 9.36, p \leq 0.001$. Univariate results showed that participants in Study 1 had lower scores than Study 2 caregivers on all three subscales: SE-Obtaining Respite (Study 1: $M = 49.8, SD = 30.6$; Study 2: $M = 57.5, SD = 29.0$), SE-Responding to Disruptive Behavior (Study 1: $M = 59.3, SD = 21.8$; Study 2: $M = 72.2, SD = 19.5$), SE-Controlling Upsetting Thoughts (Study 1: $M = 62.0, SD = 23.6$; Study 2: $M = 69.0, SD = 20.2$).

Revised Scale for Caregiving Self-Efficacy

The revised version of the measure, including administration instructions, is presented in the Appendix. Items are administered in order of the average difficulty level within each subscale, arranged from easiest to most difficult. This order was determined by combining the responses of participants in both studies in an attempt to reflect a population of caregivers experiencing a broad range of psychosocial distress. For the purpose of this article, the average confidence level and standard deviation are shown following each item, reflecting the mean response for this pooled sample ($N = 314$). These mean confidence levels would not appear on a copy of the measure as it is used with actual caregivers. We strongly believe that this scale should be administered by an interviewer because of the complexity of the task and the need to evaluate caregivers’ understanding of the concepts involved. We do not advocate administering the scale in a self-report, paper-and-pencil style, and have no reliability or validity data supporting that form of scale administration.

General Discussion

The literature on caregiving for a family member with dementia has clearly documented that many individuals find this role emotionally and physically challenging (Schulz, O’Brien, Bookwala, & Fleissner, 1995; Schulz, Visintainer, & Williamson, 1990). Self-efficacy has been suggested as an important construct in understanding individuals’ reactions to caregiving-related stressors. Results of the present study support the use of the Revised Scale for Caregiving Self-Efficacy as an assessment tool in clinical and research settings. This measurement strategy offers a simple, effective way to assess caregiver self-efficacy that improves on both the original measures by Zeiss and colleagues (1999) and the work by Gignac and Gottlieb (1996).

A growing body of evidence from studies conducted with children and young adults shows that a high sense of coping efficacy, measured naturalistically or varied experimentally, reduces vulnerability to anxiety and depression (Bandura, 1997; Bandura, Pastorelli, Barbaraneli, & Caprara, 1999; Bandura et al., 1985; Cutrona & Troutman, 1986; Major et al., 1985; Olioff & Aboud, 1991). The present study extends this finding to middle-aged and elderly individuals coping with taxing interpersonal stressors. In contrast to the global, omnibus measures of perceived caregiving competence and personal mastery used by Aneshensel and associates (1995) in their study of caregivers, the current scale provides information about a differentiated set of self-beliefs related to specific areas of functioning.

When caregivers face caregiving demands, those with low self-efficacy beliefs focus on negative aspects of the situation, including their personal deficiencies, the difficulties of the task, and the negative consequences of failure. We had proposed that individuals scoring lower on self-efficacy for obtaining respite would report less availability of help from family. In the present study, perceived self-efficacy to gain respite from the pressures of caregiving was related to perceived social support. Social cognitive theory posits a bidirectional relationship between perceived coping efficacy and social support (Bandura, 1997). Indeed, the evidence shows that perceived social efficacy fosters the development of supportive relationships (Holahan & Holahan, 1987) and social support enhances perceived self-efficacy (Cutrona & Troutman, 1986; Major et al., 1985). This is supported by the relationship found between low self-efficacy for obtaining respite and perceived support from family. As anticipated, the measurement of perceived social support from family in Study 2 was a more successful measure of support than Study 1’s tally of number of people perceived to be available for assistance.

Focus on negative cognitions reduces motivation to initiate an activity, affects task persistence, and leads to negative affective states including depression, anxiety, and anger (Bandura, 1997). The extension of self-efficacy theory to the exercise of control over perturbing ideation and regulation of anger adds new knowledge regarding affect regulation. As predicted, confidence in one’s ability to calmly respond to patient interruptions was negatively associated with anger levels, and confidence in the ability to control worry was linked to lower anxiety. Although we were unable to test the directions of causality, we would expect bidirectional links between these efficacy beliefs and affective reactions. On one hand, higher general levels of anger and anxiety may lead to lower evaluations of these specific efficacy domains in several ways: (a) by activating selective recall of mood-congruent memories (Schwartz & Clore, 1988) and (b) by providing an affective context the individual uses to judge likelihood of success (i.e., the individual may consider how she or he has performed in the past when angry or anxious). On the other hand, lower efficacy beliefs for calmly responding to disruptive behaviors and controlling anxious thoughts may also lead to increased anger and anxiety, respectively, over time. Self-efficacy theory suggests that low self-efficacy in these domains leads the caregiver to either not initiate or not persist in the use of behavioral coping strategies such as relaxation and engaging in pleasant events. These strategies have demonstrated effectiveness in treating depression, anxiety, and anger. Low self-efficacy may also decrease the likelihood of the caregiver using cognitive coping strategies such as challenging and replacing distorted thoughts; these strategies have also been effective in reducing negative affect.

Efficacy beliefs can be developed by four major sources of influence: guided performance mastery experiences, vi-
carious transmission of competencies and social comparison suggesting that one has what it takes to succeed, persuasive communications that one possesses certain capabilities, and alteration of physiological states and reactions or reinterpretation of them (Bandura, 1997). Although any of these types of influences can affect self-efficacy beliefs, personal-mastery experiences have been shown to have the greatest impact (Bandura, 1997). In addition to being of use for research purposes, it is our hope that the Revised Scale for Caregiving Self-Efficacy will also be of use to clinicians in selecting intervention strategies for caregivers. The information obtained from the three subscales can lead to an understanding of the relative strengths and skill deficits of caregivers and can point to the need to target specific caregiving skills and domains. Optimal performance involves both skills and the efficacy beliefs to use the skills. Interventions that allow individuals the opportunity to develop skills and practice them in their actual caregiving environment have the highest likelihood of success (Bandura, 1997).

Despite differences in the two samples, the instrument performed very consistently in terms of internal reliability and construct validity. Those participating in Study 1 differed from Study 2 participants in demographic characteristics (i.e., gender, age, and education), mental health (i.e., depression), and caregiving-related indexes (i.e., length of time as a caregiver, type of dementia diagnosis). We would argue that these differences in the two samples are a substantial strength of the study, rather than a limitation. The fact that the internal consistency and factor structures of the efficacy scales were so similar for two different samples adds to the generalizability of the findings. In both studies, the SE-Obtaining Respite subscale also showed a weaker relationship with the two other subscales. It is not surprising that SE-Responding to Disruptive Patient Behaviors and SE-Controlling Upsetting Thoughts were more highly correlated, because they both assess an ability to regulate emotional responses. Calmly reacting to disruptive behaviors requires a greater need to regulate anger, and the items assessed in the Controlling Upsetting Thoughts subscale reflect an ability to regulate anxious reactions. Likewise, it is not surprising that the test–retest reliability coefficients for the three subscales were acceptable but not extremely high. Efficacy beliefs are substantially different than the concept of personality traits and can vary in their sensitivity to recent experiences and contextual factors. A number of factors can lead to revisions in efficacy beliefs, causing less temporal stability (Bandura, 1997). Although showing enough temporal stability to justify use as an outcome measure, the subscales show the expected variability of an instrument that is sensitive to context.

We are also struck by the similarity of relationships from the two studies that support construct validity. Although some constructs (i.e., anger, depression) were assessed in both studies with the same measures, other constructs (i.e., anxiety, social support) were assessed using different measures. Again, the self-efficacy subscales showed the hypothesized convergent and discriminant relationships among the other constructs, despite these differences in sample characteristics and measurement approaches. Multitrait–multimethod strategies (Campbell & Fiske, 1959) have long been advocated as perhaps the best way to demonstrate construct validity. For practical reasons, we were not able to fully cross construct (i.e., self-efficacy, anger, depression, anxiety, coping, and social support) with method (e.g., face-to-face, self-administered, audiotaped speech samples). We were, however, able to show that the three subscales of the Revised Scale for Caregiving Self-Efficacy administered orally were differentially related to other face-to-face measures, self-report measures, and the speech samples coded for criticism.

A notable weakness of the present study was the smaller proportions of male caregivers and African American caregivers. Sample sizes did not permit an examination of structural characteristics or reliability or validity analyses for male or non-Caucasian caregivers. The latter is important because of findings that African American caregivers report less subjective burden, greater caregiving satisfaction, and less perceived intrusion on their lives (Lawton, Rajagopal, Brody, & Kleban, 1992). Caregiving self-efficacy may result in better distributions (i.e., fewer ceiling and floor effects) than assessment of psychological distress, and thus provide a more sensitive assessment of intervention outcomes for African American caregivers.

The present data support the use of this measure when administered in an interview. Given the complexity of the measure and our experience that some caregivers require clarification, we do not advocate using a self-administered format for this measure. In a self-administered format, it is impossible to determine if caregivers have a full understanding of the instructions for making efficacy judgments, including the importance of honestly appraising current beliefs, using the full range of rating options, and understanding the intent of each item. Without the feedback and assistance provided in an interview, caregivers may have difficulty understanding the nature of the Controlling Upsetting Thoughts subscale and resort to rating the frequency of negative cognitions rather than their ability to control them. Future work is needed to investigate the reliability of the measure when administered in telephone interviews.

ACKNOWLEDGMENTS

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CAREGIVING SELF-EFFICACY


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Appendix


Instructions:
“We are interested in how confident you are that you can keep up your own activities and also respond to caregiving situations. Please think about the questions carefully, and be as frank and honest as you can about what you really think you can do. I will read items which cover activities and thoughts that could come up for you as a caregiver. Please think about each one and tell me how confident you are that you could do each item. Rate your degree of confidence from 0 to 100 using the scale given below:

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<th>70</th>
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<th>90</th>
<th>100</th>
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<tbody>
<tr>
<td>Cannot do at all</td>
<td>Moderately certain can do</td>
<td>Certain can do</td>
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For example, a rating of 20% confidence means that it is unlikely, but not totally out of the question for you to be able to perform the activity. A rating of 100% means that you are absolutely certain that you could perform the activity whenever you wished. A 50% confidence rating would mean that if you gave it your best effort, chances are about 50-50 that you could perform the activity. You can use any score between 0 and 100 (10, 20, 30, etc.) to express your confidence.

*** Please make all your ratings based on what you could do TODAY as the person you are NOW rather than on the person you used to be or the person you would like to be. Just rate how you think you would do as you are TODAY. Do you have any questions?”

A. PRACTICE RATING
To familiarize caregiver with the rating form, please complete this practice item first. (Display Card #1)

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<tr>
<td>Cannot do at all</td>
<td>Moderately certain can do</td>
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“…” If you were asked to lift objects of different weights right now, how confident are you that you can lift each of the weights described?”

Administrator: Read the words “How confident are you that you can…” before every item.

**PHYSICAL STRENGTH**

**CONFIDENCE (0-100)**

1. Lift a 10 pound object
2. Lift a 20 pound object
3. Lift a 50 pound object
4. Lift a 100 pound object

“How confident are you that you can do the following activities?” (If necessary, say “If this is absolutely not applicable to your situation, let me know.” Then put N/A). Read “How confident are you that you can…” in every item; place this phrase just before the word “can” in the item. (Display Card #1)

Self-Efficacy for Obtaining Respite

1. …Can ask a friend/family member to stay with ___ for a day when you need to see the doctor yourself? (M = 71.4, SD = 34.4)
2. …Can ask a friend/family member to stay with ___ for a day when you have errands to be done? (M = 63.1, SD = 37.1)
3. …Can ask a friend or family member to do errands for you? (M = 62.4, SD = 36.2)
4. …Can ask a friend/family member to stay with ___ for a day when you feel the need for a break? (M = 57.1, SD = 37.8)
5. …Can ask a friend/family member to stay with ___ for a week when you need the time for yourself? (M = 27.4, SD = 36.2)

Self-Efficacy for Responding to Disruptive Patient Behaviors

6. When ___ forgets your daily routine and asks when lunch is right after you’ve eaten, …can answer him/her without raising your voice? (clarify that “answer” can be direct or a distraction.) (M = 74.4, SD = 25.9)
7. When you get angry because ___ repeats the same question over and over, …can say things to yourself that calm you down? (M = 65.8, SD = 25.4)
8. When ___ complains to you about how you’re treating him/her, …can respond without arguing back? (e.g., reassure or distract him/her?) (M = 62.9, SD = 25.2)
9. When ___ asks you 4 times in the first one hour after lunch when lunch is, …can answer him/her without raising your voice? (M = 59.4, SD = 29.8)
10. When ___ interrupts you for the fourth time while you’re making dinner, …can respond without raising your voice? (M = 58.7, SD = 29.7)

“All caregivers sometimes have negative thoughts about their situation. Some thoughts may be brief and easy to get rid of. Other times, thoughts may be hard to put out of your mind, just like a silly tune is sometimes hard to get out of your mind. We would like to know how well you can turn off any of the following thoughts. Use the same confidence rating. Don’t be concerned about how often the thoughts come up. We want you to rank your confidence that you can turn off or get rid of each type of thought when it does come up.”

(Administrator: When caregivers state that they have absolutely never had the thoughts in one of the items, put “N/A” (not applicable) on the line for rating confidence. Begin each item with the phrase, “How confident are you that you can control…” Display Card #1.)

Self-Efficacy for Controlling Upsetting Thoughts about Caregiving

11. …Thinking about unpleasant aspects of taking care of ___? (M = 68.5, SD = 25.4)
12. …Thinking how unfair it is that you have to put up with this situation (taking care of ___)? (M = 67.9, SD = 30.6)
13. …Thinking about what a good life you had before ___’s illness and how much you’ve lost? (M = 67.5, SD = 28.2)
14. …Thinking about what you are missing or giving up because of ___? (M = 66.6, SD = 25.2)
15. …Worrying about future problems that might come up with ___? (M = 55.8, SD = 29.6)