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Peaceful Mind: An Open Trial of Cognitive-Behavioral Therapy for Anxiety in Persons With Dementia

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Abstract

Background—Anxiety has a high prevalence among individuals with dementia, and it has a significant negative impact on their functioning; yet intervention studies are lacking. We developed Peaceful Mind, a cognitive-behavioral intervention for persons with dementia. In this

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Conflict of Interest
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Description of Author Roles
A. Paukert assisted in treatment and assessment protocol development and implementation, was a study therapist, and led preparation of the manuscript.
J. Calleo assisted in assessment and treatment implementation, was a study therapist, supervised data entry, completed data analysis, managed IRB issues, and assisted in writing the manuscript.
C. Kraus-Schuman assisted in assessment and treatment design and implementation, supervised study therapists, and helped to edit manuscript.
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N. Wilson assisted in assessment and treatment design, recruitment of participants, supervision of treatment and inclusion/exclusion assessments, treatment implementation, and helped to edit manuscript.
N. Petersen was responsible for the statistical design, analysis of the study, and helped to edit manuscript.
M. Kunik assisted in participant recruitment and assessment, treatment design, treatment implementation, and helped to edit manuscript.
M. Stanley designed the study, supervised study implementation and staff, assisted with therapy and inclusion/exclusion assessments, and assisted in writing the manuscript.

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article, we describe the intervention and results of an open trial evaluating the feasibility and utility of the intervention and assessment procedures.

Methods—Peaceful Mind is implemented over a period of 3 months in the participant's home with involvement of a caregiver or "collateral." Dyads are followed for an additional 3 months via telephone. An assortment of simplified skills is offered, including self-awareness, breathing, behavioral activation, calming thoughts, and sleep skills.

Results—Nine participants were enrolled, eight completed the 3-month assessment, and seven completed the 6-month assessment. Overall, participants and collaterals were satisfied with the intervention and reported that they benefited in terms of anxiety, depression, and collateral distress.

Conclusions—A randomized controlled trial would help determine whether this promising new treatment has a statistically significant impact on anxiety in this population.

Keywords

CBT; caregiver; intervention; home

Introduction

The prevalence of anxiety among persons with dementia is conservatively estimated to be 35% (Seignourel *et al.*, 2008). Anxiety coexistent with dementia is associated with increased behavioral problems and limitations in activities of daily living (Teri *et al.*, 1999), decreased independence (Porter *et al.*, 2003), and increased risk of nursing-home placement (Gibbons *et al.*, 2002). Despite the serious impact and challenge that coexistent anxiety poses for dementia care, no controlled clinical trials have specifically addressed treatment for anxiety among people with dementia. In fact, randomized controlled trials (RCTs) of late-life anxiety treatments typically exclude persons with cognitive impairment (Wetherell *et al.*, 2003).

Several lines of evidence make a compelling case for the potential effectiveness of CBT for anxiety in persons with dementia. First, CBT is an effective treatment for anxiety in older adults without cognitive impairment (Thorp *et al.*, 2009). Second, CBT's effectiveness may be less dependent on the presence of abstract reasoning abilities in comparison to less structured forms of therapy (Doubleday *et al*., 2002). Third, case reports support the use of CBT for anxiety and depression in persons with dementia (e.g., Koder, 1998). Fourth, RCTs support the effectiveness of the behavioral techniques of CBT for depression in persons with dementia (e.g., Teri *et al.*, 1997). Fifth, research indicates that individuals with dementia can learn new skills (Camp *et al.*, 1999).

On the basis of these lines of evidence, our group developed Peaceful Mind, a form of CBT for anxiety in persons with dementia. Procedures were drawn from cognitive-behavioral interventions with demonstrated efficacy for treating anxiety and depression in cognitively intact older adults (Quijano *et al.*, 2007; Stanley, *et al.*, 2009). Modifications were made to meet the needs of participants with dementia, informed by a review of the empirical literature (Snow, *et al.*, 2006). The Peaceful Mind protocol was developed, piloted and modified over 2 years, using a case series of seven participants. During treatment development, feedback was sought from experts in the field, clinicians, clinical supervisors, and participants themselves. These preparations resulted in the final design of the open trial, for which a consistent assessment and intervention protocol was implemented. Herein we describe the intervention, results of an open trial evaluating the feasibility and utility of the intervention, and assessment procedures.

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Methods

Peaceful Mind Treatment

Structure—Treatment was provided over 6 months. During the first 3 months, up to 12 weekly in-person sessions, lasting 30 to 60 minutes, were provided in the participant's home. Each session was followed by a brief telephone call. Over the second 3 months of treatment, telephone booster sessions occurred weekly for 4 weeks and biweekly for 8 more weeks for a total of 12 weeks. Telephone appointments were used to review and reinforce skill practice, problem-solve skill-implementation difficulties, provide encouragement, and answer questions while speaking with the participant and the collateral separately.

A collateral, defined as a friend or family member who spent at least 8 hours a week with the participant, attended each session to learn the skills and coach participant practice between sessions. The clinician worked with the dyad to determine the collateral's involvement in homework, based on both individuals' levels of skill and understanding, collateral availability, and participant comfort. The plan for the role of the collateral in coaching the week's daily practice was discussed during the in-person session and recorded in workbooks. The nature and intensity of collateral involvement in coaching fluctuated over the course of treatment, depending on the type of skill and duration of prior practice, the availability of the collateral, and the ability of the participant to practice skills between sessions without collateral assistance.

The clinician manual included modules teaching self-awareness, breathing, calming statements, increasing activity, and sleep skills. See Table 1 for a full description of the modules. The clinician could decide with input from the dyad which skills best fit the participant's symptoms and abilities. Though not all skills had to be taught to all participants, in most cases, treatment began with self-awareness and breathing.

The participant and collateral received workbooks with an introduction to the treatment, as well as information and material to help them learn, carry out, and plan for use of each skill that was taught. Handouts were added to the workbooks as treatment progressed.

Each session began with review of a printed agenda for the session, which included the clinician's name, name and purpose of the program, date, session number, and goal of the meeting. The clinician then reviewed homework and prior skills. Next, a new skill was taught and practiced in-session. Lastly, the clinician guided the participant and collateral in formulating a plan for practicing the skills over the next week, including how the collateral would be involved.

Several structural aspects of the treatment were incorporated to help increase participant and collateral motivation to learn and use the skills. First, the participant was the identified target, and initial instructions were always directed toward him or her. Second, the collateral's efforts were supported by the clinician and, if clinically indicated, collaterals were given brief handouts (1-2 pages) about how to obtain more information about dementia (e.g., talk with their medical provider, contact the Alzheimer's Association, etc.), communicate with the person with dementia (Alzheimer's Association, 2005b), and increase their own self-care (Alzheimer's Association, 2005a). Third, participants and collaterals could voice their concerns privately via the between-session telephone check-ins.

Techniques to Enhance Learning—Several modifications to traditional CBT for late-life anxiety were made to enhance learning. First, skills emphasized behavioral rather than cognitive interventions. Second, only one skill was introduced at a time; and fewer total skills were offered. Third, a significant portion of each session was spent in repetition and

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practice. If possible, the practice in-session was performed exactly as it would be performed between sessions (e.g., with collaterals prompting the participant in the agreed-upon manner). Fourth, clinicians used visual cues to help the participant remember to practice and use the skills. These cues included note cards (carried with the participant or left in visible places), calendars, or notebooks. Fifth, the collateral was important in reminding the participant to use the skills, with the participant deciding what kinds of reminders would be helpful. Lastly, clinicians used spaced retrieval (SR) to improve memory for use of new skills.

SR is an evidence-based, restorative method for improving encoding and retrieval (Camp, 1999). As SR relies primarily on procedural memory (which remains intact late into the progression of dementia), motor activity is incorporated into the learning process whenever possible. For example, when practicing the use of cueing materials (e.g., note cards), participants are instructed to pick up the cueing material and use it appropriately (e.g., repeat the calming thought). The SR technique consists of repeated trials of retrieving target information at increasing intervals of time. When retrieval failure occurs, the clinician gives the participant the correct information and asks him/her to repeat it immediately. The next retrieval interval is shortened to the most recent successful retrieval interval. The interval continues to decrease until the participant provides the correct answer. At this point, expansion between intervals continues until another error occurs (Camp, 1999). When participants displayed difficulty remembering to use skills, Peaceful Mind used these basic tenets of SR. For example, if participants had difficulty remembering calming thoughts, they were written on a note card and the participant was asked, “What should you do if you feel anxious?” The participant was taught to respond by picking up the note card and reading the calming statement. This process was repeated at increasing intervals of time.

Procedures

Recruitment—Participants were recruited from the geriatric, neurology, and psychiatry clinics at a large Veterans Affairs (VA) medical center and through the geriatrics and neurology clinics affiliated with a medical school. Potential participants were recruited via screening at VA clinic appointments (n = 33), direct provider referrals (n = 25), or self-referrals from brochures located in clinic waiting rooms (n = 9).

Screening—Brief telephone or in-person interviews (10 minutes) were conducted following referral. Of the 67 referrals, 54 potential participants were excluded because they had insufficient documentation of dementia in their medical record (*n* = 8); could not communicate with the interviewer, indicating too much impairment to participate in the treatment (*n* = 8); were younger than 60 years (*n* = 2); were not interested in participating (*n* = 30); were unable to be contacted (*n* = 3); or collaterals reported that anxiety was not a problem for the participants (*n* = 3).

During the first in-person assessment session with the thirteen remaining potential participants, clinicians obtained informed consent from both participants and collaterals, gathered demographic information, and administered measures to determine whether or not participants met inclusion criteria. All thirteen participants met the following inclusion criteria: collateral and participant were fluent in English; collaterals spent at least 8 hours per week with participant; Neuropsychiatric Inventory – Anxiety (NPI-A) subscale (Cummings *et al.*, 1994) score ≥ 4; Clinical Dementia Rating scale (CDR; Morris, 1993) was between 0.5 and 2.0, indicating mild-to-moderate levels of dementia (the Dementia Rating Scale-2 [Mattis, 2001] was administered to help determine cognitive functioning scores on the CDR); primary psychiatric diagnosis was not major depression (from Mini International Neuropsychiatric Inventory [MINI] taking into account input about the

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participant's behaviors, thoughts, and feelings from both the participant and collateral; Sheehan *et al.*, 1998. If multiple diagnoses were given, the primary psychiatric diagnosis was recorded as the one that was reported as the most bothersome and interfering in the participant's life. In the case of coexistent generalized anxiety disorder and major depression, generalized anxiety disorder was diagnosed only if the symptoms preceded onset of depression.); and there were no reports of current psychosis or bipolar disorder, suicide intent, or recent verbal or physical aggression. Four participants were training cases for clinicians and independent evaluators leaving nine participants for inclusion in the open trial.

Assessment of Anxiety—As there is no standard for the assessment of anxiety among individuals with dementia, several different measures with varying methods of administration were used.

The seven-item NPI-A scale was designed to measure anxiety in persons with dementia (Cummings *et al.*, 1994). It was administered to the collateral alone, requesting information about the frequency and severity of the participant's anxiety symptoms, as well as the collateral's distress caused by anxiety symptoms over the previous week.

The Rating Anxiety in Dementia scale (RAID; Shankar *et al.*, 1999) consists of 18 anxiety-related items rated 0 (absent) to 3 (severe) over the previous week. Items assess symptoms in four categories: worry, apprehension and vigilance, motor tension, and autonomic hyperactivity. The RAID uses input from all available sources (participants, collaterals, providers).

The Penn State Worry Questionnaire -Abbreviated (PSWQ-A; Crittendon and Hopko, 2006) is an eight-item self-report inventory designed to measure the severity of worry. Though no known studies have used this measure in populations with dementia, among older adults in general, the PSWQ-A has strong psychometric properties and significant correlation with the full PSWQ (Crittendon and Hopko, 2006), which is used widely in clinical trials of late-life anxiety (Stanley *et al.*, 2003; Wetherell *et al.*, 2003).

The Geriatric Anxiety Inventory (GAI; Pachana *et al.*, 2007) contains 20 agree/disagree items. It was developed as a brief assessment instrument to measure the severity of anxiety, specifically, in an older-adult population (Pachana *et al.*, 2007).

Assessment of Depression—Coexistent depressive symptoms and diagnoses occur frequently in older adults with and without dementia (Porter *et al.*, 2003; Teri *et al.*, 1999). Moreover, many of the coping strategies provided in Peaceful Mind may reduce severity of both anxiety and depressive symptoms. For these reasons, this study included participants with anxiety and coexistent depression and measured depressive symptoms consistent with other outcome studies of anxiety treatment in later life (Thorp *et al.*, 2009). The Geriatric Depression Scale (GDS; Yesavage *et al.*, 1983) is a self-report measure of depression with 30 yes/no items related to how the participant has felt over the past week.

Assessment of Behavior Problems and Collateral Response—The Revised Memory and Behavior Problems Checklist (RMBPC; Teri *et al.*, 1992) contains 24 items on which collaterals use a 0 to 4 scale to rate the memory, behavior, and mood problems in persons with dementia, as well as the degree to which each bothers the collateral.

Assessment of Treatment Satisfaction—The Client Satisfaction Questionnaire (CSQ; Larsen *et al.*, 1979) is an eight-item, empirically derived, self-report measure that is used to

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assess patient satisfaction with services. Ratings are given on a Likert scale from 1 to 4, with 1 indicating dissatisfaction and 4 indicating complete satisfaction.

Independent Evaluation—Independent evaluators (IEs) who had no other involvement with the participant administered outcome measures at baseline, 3 months (after in-person sessions), and 6 months (post-treatment), with the exception of the CSQ, administered only at 3 and 6 months. IEs administered the RAID, asking for input from both participant and collateral. Alone with the participants, IEs administered the PSWQ, GAI, GDS, and CSQ orally to eliminate any potential impact of reading problems. Separately, the collaterals reported on their own feelings by completing the RMBPC and CSQ.

Treatment Clinicians—Clinicians administering the treatment were advanced clinical psychology doctoral graduate students. All sessions were audio-taped, and supervision was provided by clinical psychologists and a social worker with expertise in the treatment of anxiety among older adults (MS, NW or CK).

Assessment of Use of Skills—At the start of each session, clinicians collected feedback about which skills were used since the last meeting. Skills were classified as being used over the course of treatment if use was reported between two or more treatment sessions.

Analyses

As this was a small pilot study designed to assess the feasibility and potential usefulness of a treatment protocol, we did not include enough participants to detect statistically significant changes. Thus, we report on numbers of individuals who improved or worsened over the course of treatment by considering improvement to be 20% or more reduction from the baseline score. This figure is commonly used as an index of response in late-life anxiety-treatment studies (Stanley *et al.*, 2003; Wetherell *et al.*, 2003).

Results

Participants

Nine participants were included in the open trial, but one dropped out after only one session. Of the eight participants who completed the treatment protocol, the average age was 77 (range = 67 to 89), there were five male and three female participants, and ethnicities were Caucasian (n = 6), Hispanic (n = 1), or African-American (n = 1). Types of dementia included Alzheimer's (*n*=5), vascular (*n*=2), and not otherwise specified (*n*=1). Seven participants reported taking psychiatric medications. Dementia severity, MINI diagnoses, collateral relationships, and types of psychiatric medications for individual participants are presented in Table 2.

Treatment Involvement

Treatment involvement was high overall (See Table S1 for individual participant data; published online as supplementary material to the electronic version of this paper; http://www.journals.cambridge.org/ipg). Three-fourths (6/8) of the participants completed at least nine of the 12 possible sessions with the average number of sessions completed being 9.5 (range = 5 to 12). The average session length was 53 minutes, with means for individual participants ranging from 38 to 60 minutes. During the second 3 months of study involvement, participants completed an average of 6.9 out of the eight possible booster calls. Most participants and collaterals were taught and used self-awareness (100% taught; 88% used), breathing (100% taught; 100% used), calming thoughts (100% taught; 75% used), and activity planning (88% taught; 88% used) skills. However, sleep skills were only infrequently used (63% taught; 25% used).

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Outcome Measures

Results are reported as percentages of individuals with baseline and follow-up data whose scores suggested improvement (See Tables S2 and S3 for individual patient data at baseline, 3 months, and 6 months for the eight participants who completed treatment; supplementary material; http://www.journals.cambridge.org/ipg). Several participants did not complete all measures at all time points: Participant 1 did not complete a 3-month NPI-A; Participant 6 did not complete a 6-month NPI-A; and participant 8 did not complete the 6-month assessment because of illness.

Anxiety—Most participants were improved (i.e., had a 20% or more reduction from baseline), according to the NPI-A, at 3 months (86% [6/7]) and at 6 months (66% [4/6]). According to the RAID, 25% of patients (2/8) were improved at 3 months and 57% (4/7) at 6 months. On the PSWQ-A, 50% (4/8) of the participants reported improvement at 3 months and 43% (3/7) at 6 months. On the GAI, 38% (3/8) of participants reported improvement at 3 months and 43% (3/7) at 6 months. However, three of the participants scored 0 on this measure at baseline, so no positive changes were possible.

Secondary Outcomes—Most participants reported reduced depressive symptoms according to the GDS; 75% (6/8) at 3 months and 57% (4/7) at 6 months. At 3 and 6 months, 71% (5/7) and 50% (3/6) of collaterals, respectively, reported that their distress over the patient's anxiety had decreased (NPI-A distress question). On the RMBPC, only one collateral reported improvement in participant memory, behavior, and mood problems at each time-point, 13% (1/8) at 3 months and 14% (1/7) at 6 months. However, 38% (3/8) of collaterals reported decreased distress over the client's memory, behavior, and mood problems at 3 months and 57% (4/7) at 6 months.

At 3 months, the average satisfaction (CSQ) rating for participants was 28.9 (range = 24 to 32) and for collaterals was 29.1 (range = 26 to 32), indicating high satisfaction with treatment. Satisfaction ratings remained high at 6 months (Participant M = 28.8; Collateral M = 29.7).

Discussion

Overall, data from this open trial suggest that there are potential benefits of Peaceful Mind, a cognitive-behavioral intervention for anxiety among persons with dementia. The high completion rate indicates that the treatment and assessment protocol is feasible in this population. The average number of sessions completed (9.5) is notable, given the frequent physical illnesses experienced by this population; and the average length of each session indicated that participants were able to maintain attention and involvement in the treatment. Overall, participants and collaterals reported that they were satisfied with and benefited from the treatment in terms of anxiety, depression, and collateral distress, which indicates that the intervention has potential utility.

Participants and collaterals reported using almost all skills with only sleep skills being infrequently used. Although sleep problems commonly occur in older people, particularly those with anxiety and depression (Mallon *et al.*, 2000), sleep disturbances may be low on the list of bothersome symptoms for individuals with dementia and anxiety and their caregivers (Ferretti *et al.*, 2001). Sleep problems also may have been addressed by other skills, such as breathing, calming thoughts, and activity planning, which reduced anxiety and/or left less time for daytime naps.

Anxiety did not improve for all participants on all measures, but the only participant who did not improve on any measure of anxiety was unable to complete the treatment protocol

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because of significant health problems and an extended hospitalization. Most collaterals reported decreased participant anxiety on the NPI-A; but results were more mixed for other measures. The most consistent decrease may have been shown on the NPI-A because this was the measure by which participants were screened and a minimal score was required for study inclusion. The mixed results for other measures may have occurred because each assesses different symptoms, resulting in low correlations between measures of anxiety in persons with dementia (Gibbons *et al.*, 2006). Additionally, the different sources of information from which measures were obtained may have further lowered consistency between measures (i.e., NPI-A: collateral report alone; RAID: participant and collateral report together and final rating by clinicians; GAI and PSWQ-A: participant report alone).

Although not a focus of treatment, depression, problematic participant behaviors, and collateral distress were measured as previous studies have found that behavioral interventions are effective for these problems (e.g. Teri *et al.*, 1997; 2005). Participants reported reduced depression, indicating the intervention may be beneficial in treating both anxiety and depression in this population. Treatment did not seem to affect problematic participant behaviors; and it is not surprising that there was some report of increases in this area, given the typically degenerative nature of dementia. Reduction in collateral distress about anxiety symptoms and general problematic participant behaviors indicate that, though this treatment is demanding of the collateral, collaterals seem to benefit.

For many outcomes, positive effects decreased from the 3-month assessment to the 6-month assessment, indicating that the effects of the treatment may decrease after in-person sessions are completed. Effects of the treatment might be maintained better with intermittent in-person follow-ups to help apply the skills to new problems that arise (e.g., new medical problems, further cognitive decline).

This population was heterogeneous in several ways, including the nature of anxiety, level of cognitive impairment and functional status, and manner in which participants and collaterals wanted to work together (e.g., practicing skills together or just providing reminders). This heterogeneity required significant clinician flexibility with regard to how to integrate collaterals, what skills to teach, and how to use memory aids. Though the treatment avoided focusing on relationship issues, these often arose, and at times the skills built into the treatment protocol were used to help with relationship problems. Greater standardization of this component of treatment may be needed for further investigations of treatment effects. Increased attention to the decisions that underlie variations in treatment also might be useful.

This study has several limitations, foremost of which are small sample size and lack of a control group. These factors, coupled with the population's heterogeneity, hinder our ability to draw specific conclusions. Second, results for different measures were not consistent even within participants, which, though consistent with prior studies (e.g., Gibbons *et al.*, 2006), creates concerns about the validity of measures of anxiety in this population. Third, there were problems with several measures, including the floor effect of the GAI. Fourth, should this therapy be shown effective in further trials, it may be difficult to disseminate as it is time-intensive and was administered within the home. Less time-intensive interventions that may be administered by paraprofessionals, such as relaxation therapy, may be as effective as time-intensive CBT in this population, as has been indicated for older adults without cognitive impairment (Thorp *et al.*, 2009).

Regardless of limitations, the overall trend of the results was favorable and participants and collaterals were mostly satisfied with the treatment. This study is unique, given the focus on anxiety and attention to working directly with persons who have dementia and their collaterals/caregivers rather than intervening primarily through caregivers as in other

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treatment studies (e.g., Teri *et al.*, 1997). Focusing treatment on the participant and conceptualizing the collateral as a coach may encourage a sense of control in the person with dementia, which is theorized to be central to decreasing anxiety (Alloy *et al.*, 1990). Additionally, this approach to treatment might help participants accept help from the collateral by encouraging them to work with loved ones to make decisions about how they want help to cope with problems.

Conclusions

Peaceful Mind, a cognitive-behavioral treatment for anxiety in persons with dementia, has potential utility for treating anxiety among persons with dementia. This open trial demonstrated that it is feasible to implement and test its effects and, thus, that it warrants future study in an RCT with some changes from the open trial protocol. First, as sleep skills were rarely used, it is suggested that focus on them be reduced. However, because sleep problems can be very disruptive, sleep skills should remain available to participants who report sleep as a central problem. Second, as participants' and collaterals' reports of improvement were not consistent across measures, additional validation work is needed to establish standards for outcome assessment in this population. Third, more information about potential moderators should be gathered to determine their effect on treatment outcome, including medical comorbidities and the effects of supplementary handouts. With these changes and the knowledge gained from this open trial, an RCT will help determine whether this promising new treatment approach has a significant impact on anxiety in this population.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

The clinician manual included modules teaching self-awareness, breathing, calming statements, increasing activity, and sleep skills. This table provides a description of the purpose, contents, and collateral involvement in each module.

Module	Purpose	Procedure	Collateral Involvement
Self-Awareness	Increased awareness of anxiety-producing situations and symptoms, prepared participants and collaterals for using anxiety-reduction skills, and promoted the participant and collateral's working together daily.	Participants and collaterals were asked to keep a daily record of anxiety-related experiences individualized for each participant. To simplify this process, forms included examples of anxiety situations and symptoms that were reported as bothersome during pretreatment evaluation. The participant and/or collateral placed a check-mark next to situations and symptoms that occurred each day as well as skills used. Self-awareness records may or may not have been used during the entire course of treatment, depending on their helpfulness.	Ranged from the collateral reading items aloud and marking the page with the participant's response to giving only a daily reminder that it is time to complete the monitoring form.
Breathing	Often when patients get anxious, their breathing becomes rapid and shallow. Breathing retraining was a simple, portable relaxation skill.	Clinicians taught participants how to take long, deep breaths from the diaphragm. This was practiced in-session repeatedly.	Reminded participants to use the skill, and if necessary, led the participant in practice between sessions.
Calming Thoughts	A simplified version of cognitive restructuring that could increase the participant's perceptions of control and help him/her perceive a situation in a new, less anxiety-provoking manner.	Using knowledge about the participant's stressors and strengths, the clinician prepared a list of potential calming thoughts. Input from the dyad was solicited to identify which calming thoughts were most helpful. To be helpful, a calming thought should be believable (e.g., “I am not a burden” may be less effective than “My family wants to help me”). Learning and using this skill could be facilitated by writing calming thoughts on an index card that were carried with the participant or placed in a highly visible location.	Collaterals could be taught to remind the participant practice using calming thoughts regularly, such as by prompting, “What can you say to yourself if you get anxious?” They may also remind participants of calming thoughts when anxious.
Increasing Activity	With this simplified version of behavioral activation, clinicians helped participants and collaterals set concrete goals and daily practice assignments that would increase pleasurable activities and quality of life.	Clinicians helped formulate a plan to increase the participant's activity level. First, the clinician helped generate activity ideas by asking what he/she enjoyed doing in the past and would like to do in the future or using handouts with a list of activity ideas prepared (from Lejuez *et al.*, 2001; Teri *et al.*, 2005). Second, clinicians helped break activities into small steps and simplify previously enjoyed activities to facilitate overcoming potential barriers. As more activities were added to a participant's schedule, he/she sometimes found a calendar and/or a daily schedule helpful.	Collaterals could help organize activities, remind the participant of activities, or even play a more active role (e.g., doing activities along with the participant) in initiating and completing activities.
Sleep Skills	Sleep skills were simple sleep-hygiene instructions to help with sleep difficulties that often occur with anxiety.	Information on sleep problems was collected in a session before presenting sleep skills (using questions adapted from Stepanski *et al.*, 2003) and used to determine which two or three sleep skills were taught. If the selected skills were inadequate, different or additional tips were introduced. Sleep skills handouts provided information about typical patterns of sleep (Stepanski *et al.*, 2003) and could include skills derived from basic conditioning techniques (e.g., use of the bed only for sleep, developing a routine before bed, developing a regular sleep schedule), skills for specific problems (e.g., restless legs, pain), and behavior change that could improve nighttime sleep (e.g., not napping in the late afternoon, drinking decaffeinated drinks after lunch, not exercising or drinking too many fluids in the evening, and getting natural sunlight).	Collaterals were often important in providing information about sleep patterns and reminding the participant to carryout plans to improve sleep (e.g., waking them up when they took a nap late in the afternoon).

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Table 2

Dementia Severity, MINI diagnosis, collateral relationship, and psychiatric medication data on the eight participants who completed the treatment protocol are presented.

Participant	CDR	MINI Diagnoses	Collateral Relationship	Psychiatric Medications
1	1.0	GAD, MDD	Daughter	Memory
2	1.0	GAD, MDD	Wife	Antidepressant Memory
3	1.0	Depression NOS, Anxiety NOS	Wife	Antidepressant Benzodiazepine Memory
4	2.0	GAD, Specific Phobia	Husband	Memory
5	1.0	GAD, OCD, Depression NOS	Wife	Antidepressant Memory
6	0.5	GAD	Son	Benzodiazepine Memory
7	1.0	None	Son	None
8	0.5	GAD, Pain	Son	Antidepressant Benzodiazepine Antipsychotic Memory

Note: CDR = Clinical Dementia Rating Scale; MINI = Mini International Neuropsychiatric Inventory; GAD = generalized anxiety disorder, MDD = major depressive disorder; NOS = not otherwise specified; OCD = obsessive-compulsive disorder