Table 5. Caregiver Intervention Characteristics

| **Group** | **Study reference  USPSTF quality rating** | **Primary Aim** | **Intervention Description** | **Control group** | **Detailed Intervention Description** |
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| **Group-based psychoeducation** | Belle, 2006165  Fair | Provide comprehensive education program including support and active learning techniques to reduce caregiver burden | REACH II: Comprehensive, multicomponent psychoeducational program, including support group and computer-supported phone system | Educ materials + 2 brief phone calls | Provision of information (including resource notebook); didactic instruction; role playing; problem solving; skills training, stress management techniques; and telephone support groups to reduce risk in 5 target areas (depression, burden, self-care and healthy behaviors, social support, problem behaviors) by providing caregivers with education, skills to manage troublesome patient behaviors; social support; cognitive strategies for reframing negative emotional responses; strategies for enhancing healthy behaviors and managing stress. Individualized to participant based on baseline assessment. |
| Brodaty, 1989166  Fair | Reduce distress and improve QOL for both pt and cg | 10-day residential education, training, and support program for cg and pts, 10d memory tng program for pts | CG1: pt 10d residential memory tng program, no cg intervention; CG2: pt 10d residential memory tng program + 6m Waitlist for cg program | Dementia carers' program (caregivers). 10d residential stay for cg and pt plus phone-based followup. The program was aimed at alleviating difficulties associated with being a carer of a person with dementia. Specific targets: psychological distress; isolation and lack of support; lack of assertiveness and apprehension about new roles; poor marital relationship; lack of info about dx, mgmt, progrnosis, domiciliary, and welfare services; legal and financial matters; home safety and organization. The techniques used in the program included didactic education, group therapy, training in management skills, assertivenss training, discussion of "re-roling," extended family therapy sessions, training in techniques for managing problems, basic principles of behavior modification, and use of activities. Telephone calls linking the caregivers every 2w immediately after inpat program, then decreasing in frequency to every 6w. Plus additional CG program for pts: 10d residential stay for memory retraining, reminiscence therapy, environmental reality orientation, general ward activities, med/psych review + tx as warrented. |
| Burgio, 2003167  Fair  IV rec'd in 1st 6m, when only outcomes are reported |  | REACH-Birmingham: Psychoeducational and skills training program | 10 15-min supportive phone calls and educational materials | Workshop with instructional activities to encourage sharing among caregivers. Caregivers were also provided with a skills training notebook and videotapes that demonstrated critical skill techniques. A TV-VCR was lent if caregivers needed one. Caregivers were also visited by a REACH interventionist who assisted them in the application of therapeutic skills. Caregivers received therapeutic phone calls to further refine skills. Caregivers received basic information on behavioral management techniques as well as instruction and support in the technical appliction of specific behavioral and environmental treatments. Caregivers were given specific instructions in the application of problem-solving. Therapists also used cognitive restructuring. Designed to be culturally appropriate for African American and White caregivers. |
| Chu, 2011168  Fair | Reduce caregiver burden and depression | Group education program | UC | Introduction to the support group process covering the group's goals, objectives, rules, expected behaviors, and asking caregivers to tell their story. The second and third sessions, the caregivers' emotions and feelings about caregiving were openly discussed; the fifth and sixth sessions were focused around the patients' reactions and common behaivor problems. Sessions 6 and 7 addressed caregiver's need to take care of themselves and to do positive things with the dementia patient; 8 and 9, caregivers were informed about the availability of community resources, discussed financial issues and in-home services. Sessions 10 and 11 communication problems were the main focus. Final session, group progress was reviewed and caregivers were assisted to develop future plans for care. |
| Coon, 2003169  Fair | Reduce psychological distress, improve positive coping and caregiving self-efficacy | IG1: Psychoeducational and skill training with anger management | WL + brief calls to increase retention | Psychoeducational and skill training in nature, teaching and helping caregivers practice distinct self-management skills. IG1 covered anger management (relaxation techniques, self-monitoring, positive self-talk, assertiveness skills, including role-playing and rehearsing) and IG2 covered depression management (learn about connection between mood and pleasant events, monitor and increase pleasant events, problem-solving to overcome obstacles). |
| Coon, 2003169  Fair | Reduce psychological distress, improve positive coping and caregiving self-efficacy | IG2: Psychoeducational and skill training with depressions management | WL + brief calls to increase retention | Psychoeducational and skill training in nature, teaching and helping caregivers practice distinct self-management skills. IG1 covered anger management (relaxation techniques, self-monitoring, positive self-talk, assertiveness skills, including role-playing and rehearsing) and IG2 covered depression management (learn about connection between mood and pleasant events, monitor and increase pleasant events, problem-solving to overcome obstacles). |
| de Routrou, 2011170  Fair | Improve psychological status of caregiver and patient’s activities of daily living | Comprehensive group psychoeducation | Wait list | In every session, experienced health professionals provided caregivers with detailed information on specific aspects of the disease. The program was focused on education, problem-solving techniques and emotion-centred coping strategies, management of patient’s behaviour, communication skills, crisis management, resource information and practical advice. Caregivers gave their feedback on events of the previous week. Solutions raised from individual experiences had to emerge from the group rather than provided by the coordinator. During the last 20 min, carers were explained how to stimulate their relative in daily activities and social situations in an ecological and individual tailored way, according to personal interests. At the beginning of each session, caregivers gave their feedback about the way they had managed their difficulties in the previous week. |
| Gallagher-Thompson 2003171  Fair | In cgs, reduce depressive sx, increase use of positive coping strategies, decrease use of negative coping strategies, and be less bothered by pt behavior | REACH Palo Alto: Coping with Caregiving class. | Educational materials + brief supportive phone calls (number NR) | IG1 (Coping): Coping with Caregiving class. Psychoeducational class developed to teach a limited number of cognitive-behavioral mood management skills through 2 key approaches: first, an emphasis on reducing negative affect by learning how to relax in a stressful situation, appraise the patient's behavior more realistically, and communicate more assertively; and second, an emphasis on increasing positive mood through the acquisition of such skills as seeing the contingency between mood and activities, developing strategies to do more small, everyday pleasant activities, and learning to set self-change goals and reward oneself for accomplishments along the way. Also given 2 packets of materials. |
| Gallagher-Thompson, 2008172  Fair | Reduced stress and depressive symptoms through improved cog and behavioral skills | Cognitive-behavior program on coping with caregiving | Telephone support (7 15-20m calls over 4m) + educ materials | Coping with Caregiving. Based on cognitive-behavioral principles; it is a skills-learning based approach and included opportunity fo practice and for personalization of material at each meeting. Caregivers discusses experiences and problem-solving is done to address barriers.Short discussions in private if needed. Mini lecture to introduce the rationale for a new strategy or continue to discuss an old strategy if needed. Strategy is practiced through role-playing and other forms of engagements. Relaxation techniques. Final class had caregiver develop an action plan for how to apply strategies to anticipated stressful situations. Topics covered: educ about dementia, neg effects of stress on body and mind, how to identify and track problem behaviors, techniques for managing problem behaviors and identifying antecedents, cognitive restructuring, assertive communication, increasing pleasant events, planning for future, community resources. |
| Hebert, 1994173  Fair |  | Group psychoeducational program | refered to Alzheimer's Society support group | In the first session, the program is presented, the participants are introduced, and the specific needs of each participant are defined. Participants are invited to establish priorities according to their needs in caregiving and their emotional reactions. The other sessions are divided into 3 parts: information on dementia is presented (sx, dx, tx, resources available, legal and ethical issues; role-playing; relaxation techniques. |
| Hepburn, 2001174  Fair | To improve caregiver outcomes by teaching caregivers to frame their role as caregiver in more clinical, strategic terms, eg as a job | Minnesota Family Workshop | WL | Minnestoa Family Workshop. Classroom instruction and exercises along with assignments to read additional material and to put into practice principles and strategies taught in the workshop. Included 5 components: information provision, concept development (understanding progressive effect on pt and guided in developing stage-specific strategies for managing daily life and behavior), role clarification (pt's security and comfort, not rehab or changing the course of the disease), belief clarification (including importance of self-care) and impact of their emotions on pt, mastery-focused coaching. Daycare for pts while cg in training sessions. |
| Hepburn, 2005175  Fair | Mediate the impact of stressors by strengthening the carefiver's abilities to undertake and succeed in caregiving | Partners in Caregiving (PIC) program, focus on day-to-day caregiving (IG1) or decision-making framework IG2), but groups combined for results |  | Partners in Caregiving (PIC) program. The curriculum emphasized mastery of the practice of daily caregiving and development of a confident caregiving attitude. Taught caregivers to develop strategies for dealing with disease's impact. Taught to use activity analysis framework to strengthen caregiver's ability to fit daily tasks and activities to pt's capacities. Demonstrated behav mgmt techniques to cg. Homework and practice skills and strategies between sessionss. Follow-up coaching emphasized skills like assessing the immediate situation, brainstroming and implementing solutions, evaluating results. The PIC consisted of 2 versions of a multi-session multidisciplinary program. The basic program focused on day-to-day caregiving (IG1). The second version placed caregiving practice in a decision-making framework, identifying and using values and preferences as a way to evaluate the options available in day-to-day caregiving decisions (IG2). Groups combined for analysis. |
| Kurz, 2010176  Fair | Improve mood and QOL of cgs | Group education program | UC (for Austria, Switzerland, or Germany) | The educational program focused on information about Alzheimer's disease and was structured for the different stages of dementia severity, but allowed for flexibility in dealing with individual problems. The bi-monthly sessions targeted individual needs or problems. Session content covered general information about Alzheimer's, and information specific to different stages of the disease; behavioral strategies for handling challenging behavior; issues of intimacy and role change; legal and insurance-related issues, seeking support. |
| Losada, 2010177  Fair | Reduce caregiver depression through modifying dysfunctional thoughts and increasing behavioral activation | Group caregiver training | Usual care (for Spain) or assistance by social and health centers | The intervention was aimed at training caregivers in techniques and skills to acknowledge, analyse, and flexibilize maladaptive thoughts. Specifically, cognitive barriers to self-help and to do pleasant activities were sought and analysed. All the sessions presented the same structure: (a) the initial 20 and 30 min were devoted to the analysis and discussion of home work; (b) the following 20–30 min were dedicated to the exposure or description of basic concepts to be worked out (e.g. what is a thought, the relationship between situation, thought and emotion, etc.); and (c) the rest of the time involved the performance of exercises and the practice of basic cognitive and behavioral techniques and skills (e.g. analyzing in graphs the relationship between reported mood and number of pleasant activities done through the past week; analyzing registers of thoughts and their relationship with feelings and the situations that generated the feelings, etc.). Basic principles for caring for a relative with dementia (e.g. security and basic strategies for promoting independence in their relatives' behavior) were also covered. |
| Ostwald, 1999178  Fair | Reduce behavior problems in pts, reducde burden, depression, and negative reactions to pts in cgs | Multifaceted curriculum delivered via lectures and video | WL + info packet about community resources | Multifaceted curriculum to provide caregivers and family members with information about dementing diseases and how they affect persons with dementia, caregivers, and family as a system; develop and strengthen caregivers' practical skills for dealing with caregiving tasks on a day-to-day basis; strengthen caregivers' feelings of confidence and belief that they are able to deal with issues; improve family communication and cooperation. Also received a packet of information about resources available in the community for Alzheimer's care. Included classroom exercises, readings, and homework. Engaged other family members throughout. Patients with dementia were invted to attend concurrent group (day care-like activities and testing). Sessions typically included 5 primary caregivers and 8-10 other family members. |
| Signe, 2008224  Fair | Improve cg burden and satisfaction | Group education and support | UC (in Scandinavia) | General education with group discussion, strategies to mobilize help, for reducing isolation, and for coping or overcoming difficulties. Session content included information about dementia, resources and services available in the community, planning for the future, communication with ppl with demential, promoting positive attitudes toward peple with dementia, coping with challengting behavior, developing new skills and knowledge, and taking care of yourself. Written information at the end of the intervention, including a page with useful telephone numbers. Familty caregivers could continue with the conversation group. They were given practical and emotional support and the leader tried to clarify the needs of the caregivers and to help them find the kinds of support they were looking for. |
| Ulstein, 2007179  Fair | Reduce caregiver stress and improve behavioral and neuropsychiatric sx in pts | Group education program | UC (for Norway memory clinic) | Educational program. Carers are taught about symptoms and the normal course of dementia and about pharmacological and nonpharmacological treatment. Group sessions taught communcation techniques and structured problem-solving. The focus was on how to handle neurpsychiatric symptoms, how to get more informal and professional assistance and how to encourage the patient to accept this kind of help. Cognitive techniques were used to help the carers have more realistic expectations about the patients' functioning in everyday life and to make them understand the behavioral changes of the dementia syndrome. |
| Waldorff, 2012180  Good | Prevent emergence of depression and improve quality of life for patients and caregivers | Group courses targeting caregiver and patient plus individual sessions for dyad | At the assessments at six and 12 months, the raters were instructed to accommodate the patient’s and carers’ typical frustration and uncertainty associated with a recent diagnosis by providing overall information and guidance, and they could facilitate contact to relevant local support programs in both the control group and the intervention group. | The DAISY intervention was conducted as a supplement to the control support. It was tailored individually to each of the participating dyads, and it offered the participants a number of components at their disposal. Up to seven counselling sessions were scheduled: two sessions with the patient and caregiver; two sessions with the patient alone; two sessions with the caregiver alone; and an optional network session with the patient, caregiver, and family network. The counsellor offered the participants guidance with common decision making, advice, and activities that help the participants construct a meaningful life. Written notes were used to focus follow-up sessions with the aim of improving coping strategies and empowering the participants to focus on the positive factors and resources in their lives, according to the principles of self validation. Two parallel lines of five courses each were targeted at patients and caregivers respectively. The objective of the courses was to provide a basic knowledge about the disease and its consequences along with establishing a forum for patients’ and caregivers’ exchange of experiences and coping strategies. The study coordinator contacted the participants by telephone about five to eight times at three or four week intervals. The calls focused on issues discussed at the individual sessions and education courses, but sometimes the conversations included other issues relevant for the individual participant. Patients and caregivers were also supplied with comprehensive written information to support the information given at counselling sessions and courses and a log book in which they could write information and thoughts about their daily life. |
| **Individual psychoeducation** | Chang, 1999181  Fair | decrease cg burden, improve cg mental health, and prevent or delay nursing home placement for pt | Video-based information and phone counseling | Weekly supportive calls assessing cg general well-being | Videotapes demonstrating assisted modeling behavior (eating and dressing) and a support program to reinforce the vidoes and assist the caregiver to explore coping strategies. |
| Ducharme, 2011182  Fair | Improve caregiving and self-efficacy related to caregiving | Individualized counseling and education program | UC at memory clinics | 7 modules: caregiver perceptions of the care situation; coping strategies for dealing with difficulties and averting psychological distress; how to communicate and enjoy time spent with the patient; how to use strengths and experiences to take care of the patient; how to get friends and family to help; knowledge of services and how to ask for them; and planning ahead for the future. Specific skills include communication skills, discussing responsibility for care among family members, becoming familiar with available resources, planning for the future. Includes workbook with documents and exercises to put session topics into practice. |
| Gitlin 2008183  Fair | Reduce behavioral disturbance in pts and burden in cgs | Tailored activity program: identify and capitalize on preserved pt abilities | WL | Interventionists met with caregivers, introduced intervention goals, used a semi-structured interview to discern daily routines, and identified previous and current activity interests. Interventionists observed dyadic communication and home environmental features and assessed dementia patients using the Dementia Rating Scale and Allen's observational craft-based assessments. Interventioniosts identified 3 activities and developed 2-3 page written plans (Activity Prescriptions) for each. Each prescription specified patient capabilities, an activity and goal and specific implementation techniques. The prescription was reviewed and the activity introducted through role play or direct demonstration. Caregivers were also instructed in stress reducing techniques to help establish a calm emotional tone. Caregivers learned to generalize approach for reducing complexity of tasks. |
| Gitlin, 2001184  Fair | Examine short-term effects of home environmental intervention on self-efficacy and upset in caregivers and daily function in dementia patients | Targeted multi-component program by occupational therapists | Educ materials at the end of the study | Targeted, multicomponent program focusing on home environment. Therapist met with caregiver to develop a targeted plan that addressed the specific aspects of daily care that were problematic and for which the caregiver wanted to learn new strategies. Education about the disease process and impact of environment on dementia patients, and benefits of environmental simplification and breaking down tasks for pts. Role-play, direct observation and interviewing to explore ways in which the caregiver handled problem areas and conceptualized or cognitively framed their situation. Education about dementia and the role of the physical and social environment was presented in relation to the specific care difficulties presented by caregivers. The therapists engaged caregivers in mutual problem solving to identify alternate care strategies. Therapist reinforced education about dementia through written materials and discussion, addressed a targeted problem area, observed the caregiver using previously recommended strategies, and/or offered new recommendations. |
| Gitlin, 2003185  Fair | reduce burden and improve QOL in cgs through modifications to the pts environment | REACH Philadelphia: Environmental skill-building program | UC + educational materials | Environmental skill-building program. Educate caregivers about the impact of the environment on patients. Provides caregivers with the skills and technical support necessary to alter their home environments in order to help reduce the adverse impact of behavioral problems. The OT reviews intervention goals and conducts a systematic needs assessment to identify which of 11 areas are difficult for the caregivier to manage and for which he/she wants to learn new strategies. 11 domains considered: caregiver-centered concerns, communication issues with the patient, problems in coordinating care, difficulties assisting in ADLs, concern about home safety, difficulty distracting or engaging patient, concern with wandering, difficulty managing incontinence, difficulty managing catastrophic reactions. In the second visit, the OT continues the education process and works with the caregiver to problem solve about antecedents and consequences of a particular identified problem area. In each susbsequent visit, the OT reinforces education about dementia through written materials and discussion, addresses a targeted problem area, observes the caregiver using previously recommended strategies, provides refinement, and offers new recommendations. Strategies may include modifications to the physical environment, strategies to simplify pt task completion (e.g., simplifying task, providing cues), modification to the social environment (coordinating care among social network, communicating with providers). |
| Gitlin, 2010187 (ACT)  Fair | Help caregivers eliminate, reduce, or prevent problem behaviors by identifying and modifying potential triggers for problem behaviors. | ACT: Occupational Therapy invervention | No OT contact | IG: OTs met with caregivers to introduce intervention goals, review targeted problem behaviors identified at BL, and observe home environment for patient way-finding and potential hazards (e.g. placement of medication) and caregiver-patient interactions (e.g., communication style) using standardized checklists. An action plan was provided. Caregivers were instructed in stress reduction and self-care techniques. Skills were built by having caregivers practice problem-solving and strategy identification and use with OTs and then independently between sessions. Stress reduction and self-care were covered. Low-cost assistive devices were provided. An advanced practice nurse met with caregivers to provide education on common medical conditions that may exacerbate problem behaviors. Patient medications were reviewed and possible undiagnosed illnesses were tested for. |
| Gitlin, 2010188 (COPE)  Fair | improved alignment of environmental demands with patient capability will improve patient and caregiver outcomes | COPE: Occupational Therapist assessment, education, and training | Educ materials + 3 20m phone calls | IG: Assessments (patient deficits and capabilities, medical testing, home environment, caregiver communication, and caregiver-identified concerns); caregiver education (patient capabilities, potential effects of medications, pain, constipation, dehydration); and caregiver training to adress caregiver-identified concerns and help them reduce stress. Included training in problem-solving, communication, engaging patients in activities, and simplifying tasks. |
| Hebert, 2003190  Fair | Reduce caregivers' reactions toward troublesome behaviors and indirectly reduce their burden, psychological distress, and anxiety, and improve their perception of social support and well-being | Cognitive appraisal and coping strategies group psychoeducational program | refered to Alzheimer's Society support group | First component was cognitive appraisal, with the primary objective of improving the caregiver's ability to shift from a global stressor to a specific stressor (i.e., break down to specific elements to clarify the problem and increase awareness that something can be done. Second and third objectives were to develop the caregivers' ability to distinguish between the changable and unchangable aspects of a stressor and their awareness of the importance of the match between the changability of the stressor and choice of coping strategies. Homework to practice identifying specific stressors and identifying changeable and unchangeable aspects and emotional reactions. Second component was coping strategies; mainly focused on problem-solving, reframing, and seeking social support |
| Hinchliffe, 1995191  Fair | reduce behavioral disturbance in pts and improve mental health of cgs | Individualized care package | WL | Individualized care package for each patient and caregiver. Medication, psychological techniques, and social measures were considered. 3 lines of approach were taken to reduce the frequency and/or duration of specified behaviors; reduce caregiver exposure to the behavior; and improve the caregiver's ability to cope with the behavior. |
| Huang, 2003192  Fair | Reduce problem behaviors in pts, improve cgs self-efficacy for mgmt of problem behaviors, and improve environmental supports for cg | Individualized counseling and education program | written materials and biweekly social phone calls | 2-session in-home training program. At the initial visit, the investigator established a partnership with the family caregiver by working through a structured assessment guide. Assessments were made on the conditions of the dementia patient, including habits, daily routines, preferences, behavioral problems and environmental safety and stimulus. Then the investigator worked with the family caregiver to identify targeted behavioral problems and explored causitive environmental stimuli. A tentative plan to minimize the stimuli by modification of the daily schedule was then made with the family caregiver. A second visit was mde to further assess family resources, confirm the behavioral problems, and finalize the plan for handling specific behavioral problems with the caregiver. Contact information for investigator was left in case of problems. Followup phone calls. |
| Marriott, 2000193  Fair | Reduce caregiver burden | Individualized counseling and education program | CG1: UC (for UK) CG2: UC (for UK) plus In-depth interview | 3 main components: carer education, stress management, and coping skills training. Carer education: Caregiver's knowledge of dementia was thoroughly assessed (3 sessions); general information on Alzheimer's diease and practical advivce and management was provided. Stress management (6 sessions): Assessment of caregiver's current appraisal and response to stressors. Adaptive methods of managing personal stress were taught, including self-monitoring, relaxation training, and cognitive and behavioral responses. Training in coping skills (5 sessions): Advice about and role-play of more effective ways of responding to problematic patient behaviors, and exercises to address caregiver's feelings of loss concerning changes in the patient or alterations to their own quality of life. 4 booklets were given that covered information about AD, the intervention topics and available services. Audio-taped in-depth interview same as CG1. |
| Martin-Carrasco, 2009194  Fair | Reduce caregiver burden | Psychoeducation Intervention Program (PIP) | UC (for Spain) | Usual care (for Spain) as well as a Psychoeducational Intervention Program (PIP) where information was provided about the disease and the caregivers were taught to control tension and stress deriving from the caregiving and also strategies for handling patient's behavioral problems and increasing their satisfaction with life. Incorporated elements of cognitive-behavioral counseling, including control of activation (assume this is behavioral activation), cognitive restructuring techniques, problem-solving, and increasing rewarding activities |
| Martin-Cook, 2005195  Fair- | Increase cg sense of competence and reduce depression sx by helping cgs develop a more realistic view of pts function | Individualized training program to help cgs accurately assess pts functioning and demonstrate simplifying tasks | WL + info about community resources | Individualized based on the functional level of the patient and the coping level of the caregiver. Four weekly skills training sessions where caregivers progressed from observer to active participant. Taught caregiver to test functional abilities, break down ADLs to simpler tasks and provide other visual, auditory, tactile, or multimodal cue to improve functioning. Individualized suggestions to enhance communication and specific strategies to facilitate cueing on ADL were reviewed. Practical advice regarding home safety and information about community resources, companion service agencies, and other home health services was offered. |
| Roberts, 1999196  Fair | Reduce psychological distress, durden, and expenditures for health and social services, and improve social support and coping methods | Problem-solving counseling | Usual community and respite services (for respite nursing agency in Canada) | 3 community nurses were trained in problem-solving therapy by experienced therapy nurses; a problem-solving manual was used. Thes nurses provided individual sessions to relatives. Relatives also received usual ongoing available community and respite services by other nurses and volunteer agencies. |
| Schoenmakers, 2010197  Fair | Improve patients functioning in daily life activities and cognitive function | Care counselor for regularly scheduled and ad hoc assistance | Not guided or visited by the care counselor but were passively directed to the usual care systems (for Belgium) | The care counselor was at the exclusive disposal of the intervention group. Over a course of 12 months, the care counselor guided the family carer in organizing home care. At a first visit, the counselor assisted the family carer in exploring any problematic home care situations. Additionally, the care counselor arranged a monthly phone call with the family carer and a three monthly visit. During the intervention period twelve phone calls and four home visits were scheduled. Additionally, the care counselor was within permanent reach for advice by phone, for adjusting home care or for an extra visit. No structured or hierarchical care plan was provided but drawn out following the needs of the family carer and patient. General practitioners were informed about each change in formal or informal home care of their patients. |
| Teri, 2005199  Fair | Reduce depression, burden, and stress in cgs and improved mood, decreased behavioral disturbance, and improved QOL in pts | Home- and phone-based problem-solving counseling | UC (in US) | Consultants met with caregivers in their homes, followed by phone calls. The first 3 sessions focused on teaching caregivers the rationale and use of the A-B-C problem-solving approach to behavior change. Using examples from the caregiver's weekly diary, the caregiver and consultant brainstormed strategies for modifying antecedents or consequences of problem behaviors, and developed written behavior-management plans for the following weeks. Subsequent sessions focused on improving caregiver communication, increasing pleasant events as a means to improve patient's mood, and developing strategies to enhance caregiver support. In the followup phone calls, consultants helped caregivers develop behavior management communcation, pleasant-event and caregiver support strategies for any new problem that arose. |
| Voigt-Radloff, 2011200  Fair | Improve daily functioning of pts; improve cgs QOL, mood, and competence; delay long-term nursing home placement | Occupational Therapy aimed at caregiver and patient | single 1/2- to 1-hour session with OT covering leaflet and answering questions | Dutch 10-session community occupational therapy dementia program, delivered in patient's home. OT explored the patient's preferences and history of daily activities; their ability to perform activties and use compensatory strategies within the familiar environment; the possibilities of modifying the patient's home; the caregiver's activity preferences, problems in caregiving, coping strategies and abilities to supervise; the interaction between caregiver and patient. The caregiver and patient selected the 1-2 most meaningful activities out of a list of their preferences for daily activities to work on. The OT, patient and caregiver defined more effective compensatory and environmental strategies, activities and environment in order to improve their performance of daily activities. The caregivier received practical and emotional support and was coached in effective supervision, problem-solving and coping strategies. |
| Williams, 2010201  Fair | reduce cg stress through acquisition of skills | LifeSkills video modules + phone counseling | WL | LifeSkills video modules: increasing awareness of and objectivity in distressing situations; evaluating one's reactions to those situations to decide whether to try to change one's reactions or to take actions to try to change the situations; changing one's reaction to distressing situations; using assertion to get others to change their behavior; problem solving to change distressing situations; saying no to reduce exposure to distressing situations; speaking clearly so others really listen; listening skills to make sure you hear what others are saying; empathizing to increase understanding of other's behavior; increasing the positives in your interactions with others. Videos were accompanied by a workbook that provided additional information. Phone calls to facilitate modules, apply video material to cg's specific situation. |
| Wright, 2001202  Fair | reduce agitation and institutionalization in pts, reduce depression, stress in cgs through improved behavior management and medication monitoring of pts | Management of problematic behaviors | No behavior management program | Caregivers were asked to identify the most troublesome behaviors in the patient. Strategies for handling such behaviors as hiding and hoarding of objects, repetitive questions, or restlessness were discussed, and a plan for the caregiver to implement a new approach was developed. In addition, the patients' medications were monitored. If side effects were noted or a dosage adjustment seemed indicated, the clinical nurse specialist conferred with a physician. The caregivers' emotional and physical health was addressed with supportive counseling. Caregivers were encouraged to openly express anger, frustrations, and sadness. Strategies for getting help were discussed. Referrals to home health agencies, support groups, and other AD programs were made, and intensive psychotherapy if needed. Physical health concerns were discussed and medical referrals made if needed. |
| **Psychoeducation & Care/Case Management** | Bass 2003203  Fair | Care consultation will have beneficial effects on health care utilization, caregiver satisfaction with services, and caregiver depression and care-related strain | Phone-based care consultation, providing tools to enhance pts and cg competence and self-efficacy | Can contact Alzheimer's Association independently | Flexible, multicomponent intervention. It is a telephone intervention based on an empowerment conceptual framework. Care consultants work with families to help identify personal strengths, as well as resources within the family system, health plan, and community. the goal is to provide tools to enhance patients' and caregivers' competence and self-efficacy. Care consultants also provide information about available community services, facilitate decisions about how best to utilize and apply for these services and may contact service agencies on behalf of the caregivers and patients. |
| Callahan, 2006204  Fair | Improvement in neuropsychiatric functioning of AD pts | Primary care-based Collaborative care and psychoeducation program | "Augmented" UC (written materials, 40-90m counseling session w geriatric NP, dx write-up to PCP from NP | Collaborative care management for a maximum of 12 months. Recommended for treatment with AChEIs or memantine unless contraindicated. Education on communication skills, caregiver coping skills, legal and financial advice, patient exercise guidelines with guidebook and video, and caregiver guide provided by local Alzheimer's Association. Individualized recommendation for managing difficult pt behavior and specific stressors. Specific protocols developed for: personal care, repetitive behaviors, mobility, sleep disturbances, depression, agitation or aggression, delcusions or hallucinations, and caregiver physical health. Care manager also used a web-based tracking system to manage pt appointments and for communicating pt status to treatment team. Met with treatment team members to plan and evaluate treatment. Invited to participate in voluntary support group sessions focused on support and stress mgmt (caregivers) and chair-based exercise (patient). Also received the same intervention components as the CG. |
| Chu 2000205  Fair | reduce cg burden and delay institutionalization | Comprehensive early home care program, incl case mgmt, specialty tx as needed (physical therapy, OT, pyschiatric, etc.), respite care, other assistance | Information on community resources | Early Home Care Program. Provided case mangement, occupational therapy, physical therapy, social work, nursing, respiratory therapy, in home respite, and out-of-home respite, homemaking, personal care assistance, volunteer service and psychiatric consultation. Objectives were to assist the clients and family to: initiate long-term planning early related to issues such as housing, finance, legal matters, caregiving support; increase use of the home care and otehr community services; improve the coping strategies related to psychosocial issues which often hinder long-term planning and service utilization; improve caregiving strategies related to functional and behavioral difficulties of the individuals with AD. |
| Eloniemi-Sulkava 2009 225   Good | delay institutionalization and reduce healthcare utilization and costs | Comprehensive support provided by a Dementia Family Care Coordinator | UC (for Finland) | The core elements of the intervention consisted of a family care coordinator's (FCC) actions, a geriatrician's medical investigations and treatments, goal-oriented support group meetings for caregivers and individualized services. All the coordinated services were planned in collaboration with the families. At a home visit with the FCC an initial support plan was created. The geriatrician's appointments and comprehensive geriatric assessments and treatment for the patients (or caregivers if needed) followed the visit. The services were primarily arranged through the municipal social and healthcare system. The FCC operated in partnership with the geriatrician, who was available to the couples. The caregivers participated in 5 goal-oriented support group meetings during the first year. Each meeting had a different theme relevant to caregiving. |
| Eloniemi-Sulvaka, 2001206  Fair |  | Comprehensive support provided by a Dementia Family Care Coordinator |  | Comprehensive support provided by a DFCC, who had access to a physician. The DFCC gave continuous and systematic counseling, conducted follow-up calls and in-home visits as well as arranging social and health care services. She acted as a dementia expert and an advocate for the patients and the caregivers. Only services in the financial range of the caregivers and patients were used. Both the patients and caregivers participated in annual courses. The purpose of the courses was to support the functional capacity and adaptation of both patients and caregivers (included medical check-ups, psychological assessments, lectures, therapeutic group meetings, and different kinds of physical, mental, and social stimulation). The rehabilitation team made the service plan for each family. |
| Fortinsky, 2009207  Fair | Prevent/delay nursing home admissions by improving knowledge and psychosocial outcomes and increasing use of available services | Individualized care consultation services: problem-solving, monthly care plans sent to PCP, plus educational materials | Educ materials only | Received a package of educational materials at baseline related to dementia symptom management and available community services. At monthly meetings it was determined which aspects of dementia symptoms and care responsibilities caused caregiver concerns, discuss action steps to address caregiver concerns, and compose a written care plan. Each care plan was organized according to problems or concerns expressed by the family caregiver (whether related to the caregiver or patient), along with action steps that caregivers should take to address each concern. The minimum care plan for all family caregivers included the action steps that family caregivers should take to learn more about or use; key information about the clinical course of the disease process; legal and financial planning issues; family support groups; dementia educational programs offered by the chapter and other organizations; adult day care services; and respite care services. Care plan was also faxed to patient's physician with the expectation that the physician would review the care plan with the caregiver, inquire if action steps had been taken, and reinforce the importance of the plan. |
| Gitlin, 2003185  Fair | reduce stress in cgs | REACH Memphis: Caregiver support in primary care + behavior management by phone | Information during 4-6 primary care visits and referral to local Alzheimer's organizations | Behavior care. Caregivers are taught personal strategies to help themselves cope better when problem behaviors arise. Supplemental telephone calls between office visits help extend face-to-face meetings by providing caregivers the opportunity to further review and discuss intervention materials. Caregivers receive specific handouts identified through the in-person counseling sessions. |
| Gitlin, 2003185  Fair | reduce stress in cgs | REACH Memphis: Caregiver support in primary care + behavior management and individual counseling/support | Information during 4-6 primary care visits and referral to local Alzheimer's organizations | IG2: Enhanced care. In addition to IG1, enhanced care teaches specific stress and behavior management strategies for the caregivers themselves through face-to-face meetings with the interventionists at regularly scheduled primary care office visits. Enhanced care educates caregivers on successful cognitive and behavioral strategies that can help change negative thinking patterns and may also help reduce caregiver distress in caregiving situations where the course of events cannot be altered. |
| Jansen 2011208  Fair | improve compentence, psychosocial functioning, and QOL in cgs, and QOL in pts | Case management | UC (for The Netherlands) | Case management entails assessment, planning, coordination, collaboration, and monitoring of care. Nurses provide practical, informational and socioemotional support. Multiple support strategies are offered to informal caregivers and patients (e.g., support groups, respite care). The intervention begins with a home visit in which they administer the Resident Assessment Instrument Home Care (RAI-HC). The nurses and participants order the identified problems into a heirarchy and formulate a care plan for these problems. They leave behind a form to register care received and appointments with health professionals. In the 2nd home visit, the nurses explore the caregiver's situation with a capacity and burden questionnaire and hand a guide to caregivers holding available social services and welfare professionals. Additional visits are planned as needed. Nurses contact and monitor the situation at least every 3 months. Nurse contact the GPs to inform them about the situation. |
| Lam, 2010209  Fair | Reduce burden of cgs of older people with mild dementia | Case management | UC (for Hong Kong) | Subjects were assigned to a case manager (OT). Assessment and advice: The case manager evaluated the activities of daily living and neuropsychiatric symptoms of the demented subjects, and caregiver distress in care duties. Advised caregivers and patients on safe performance in basic self-care activities with environmental modification to promote safe home living, behavioral management, and communication techniques. Home-based program on cognitive stimlation: Training on home-based cognitive stimulation strategies that included reading newspapers together, reminiscence by old-time photos, continued engagement in usual household tasks and leisure activities. Reinforced by home visits and telephone calls. Case management: Support to caregivers and patients by home visits initially, later by phone calls, and follow-up at hospital clinic visits. Encouraged the subjects to be registered with local social centers. Liased with staff in the social centers to ensure smooth integration. The case manager was accessible by a telephone hotline during working hours Monday-Saturday. Liased closely with the psychogeriatricians or geriatricians in the clinics. |
| Vickrey 2006210   Good | Improve adherence to dementia guidelines | Care managers provided comprehensive assessment and action plan developed with caregiver | UC (in US) | 23 existing dementia guideline recommendations were selected as care goals by a steering committee (a physician from each health care organization, a leader from each community agency, a community caregiver, and investigators). The committee also designed a structured assessment, algorithms linking specific care management actions to assessment results, and interorganization care coordination and referral protocols. Every enrolled patient and caregiver dyad was assigned a care manager who contacted them to schedule a structured home assessment. The care manager collaborated with the caregiver to prioritize problem areas; teach problem-solving skills; initiate care plan actions; and send and assessment summary, a problem list, and selected recommendations to the PCP and other designated providers. A meny of potential care plan actions was documented. The care manager provided ongoing followup. |
| **Assessment & Treatment Planning** | LoGiudice, 1999211  Fair | Improve psychosocial health status and reduce burden of cg | Extensive assessment and referral | Assessment only, questions raised were answered and referral back to GP was encouraged | Attended a hospital memory clinic on 2 occasions. The initial visit included a complete medical and cognitive assessment. Principal carers were interviewed by the research nurse who provided advice and counseling as well as completing the CAMDEX informant interview schedules. Participants were invited back for a neuropsychological assessment. A family conference was undertaken with carers, patient, and family members to discuss the details of the outcomes of the assessment. Participants were free to ask questions and a plan of assistance was formulated, which included referral to appropriate services. GPS were informed of the assessment. |
| **Computer/ Phone-based Psychoeducation** | Brennan, 1995212  Fair | reduce social isolation in cgs and improve decision-making skill and confidence | Interactive computer-based information and BB with nurse moderator | NR, assume UC | ComputerLink. Included a public bulletin board, private email, and a question-and-answer segment facilitated by a nurse. It included a 4-module electronic encyclopedia on Alzheimer's disease and its treatment, management of symptoms, services for Alzheimer's patients and caregivers, and self-care for caregivers. Also included a decision-support module that helped caregivers address unsolved problems and dilemmas. |
| Finkel, 2007213  Fair | See if technology-based intervention is feasible for social service agency | Primarily computer-supported phone-based system | Educ materials + 2 brief phone calls | Focused on provision of information about the disease and community sources and strategies to enhance safety, communication, self-care, social support, and management of problem behaviors. A computer-telephone integration system (CTIS) was the primary vehicle for intervention delivery and the intervention was delivered by staff at the Council for Jewish Elderly. The CTIS system involved the use of screen phones that allowed the users to place/receive calls, send/retrieve messages, access a range of information and services, and conference with several people simultaneously. Each caregiver was provided with a phone. |
| Mahoney 2003214   Fair | reduce stress, depression, and anxiety in cg through reducing pts disruptive behaviors | REACH Boston: Telephone-linked computer. | UC + educational materials | Telephone-linked computer. Integrated telephone network system and IVR computer network system. Caregivers dialed in and heard the narrator greet them by name, review the menu of four module options, and got the service they requested. The caregiver heard a digitized human voice that spoke a computer-mediated script. Caregivers responded by touching the designated numbers on their phone. Available modules: (1) Weekly caregiver's conversation (interactive automated system that monitored stress levels and provided information on how to manage patient problems, sent alerts to system manager if stress level increased significantly during 3-week period, monthly health self-assessment, reminders about previous advice and TLC features); (2) personal mailbox (allowed caregivers to anonymously send and receive confidential communications with other caregivers or communicate with a clinical nurse specialist); (3) bulletin board (support group over the phone, similar to a chat group, users could post messages and receive responses from other users); (4) activity-respite conversation (offered the patient an 18-minute personalized, pleasant conversation designed to engage the listener in a safe, comforting, and nondemanding activity). Also included "Ask the expert" option for confidential voicemail access to multidisciplinary paen for advice, referrals, or second opinions. |
| **Family-based Psychoeducation** | Joling, 2012215,216  Fair | Reduce depression and anxiety in cgs, as well as burden and improving QOL | Psychoeducation for caregiver and family members with primary goal to increase family involvment in care and support primary caregiver | UC (for The Netherlands) | 6 in-person counseling sessions: one individual prparation session followed by 4 structured meetings that included their relatives and/or friends (family meetins), and one additional individual evaluation session. The first session was aimed to prepare the caregiver for the family meetings and to propose the idea of seeking help from family and friends. The aim of the family meetings was to offer psuch-education, teach problem-solving techniques and mobilize the existing family networks of the patient and primary caregiver in order to improve emotional and instrumental support. After the final family session, an individual session was held to evaluate the caregiver's satisfaction with the intervention program and to start additional support when requested. |
| Mittleman, 2008217  Good | Reduce depression in cg, delay pt nursing home placement, improve pt survival through improved emotional support and assistance of caregiver by other family members | Individual and family counseling sessions + donepezil | Donepezil + UC | In-person counseling sessions, two individual sessions and 3 sessions that included family members. Counseling on demand by telephone also provided. Donepezil (started at 5 mg and was increased to 10 mg/day unless contraindicated). Resource information, help in an emergency, routine services. |
| **Peer support only** | Charlesworth, 2008218  Fair | improve psychological well-being and QOL of cg | Peer befriending (peer not necessarily experienced in caregiving) | UC (in England) | Contact with a local befriending scheme. Befriending volunteers had the role of providing emotional support for their matched carers through companionship and conversation and being a "listening ear." We also permitted informational support or "signposting" in limited, appropriate circumstances. Usual care as provided in their area by health, social, or voluntary services |
| Gallagher-Thompson 2003171  Fair | In cgs, reduce depressive sx, increase use of positive coping strategies, decrease use of negative coping strategies, and be less bothered by pt behavior | REACH Palo Alto: Enhanced support group | Educational materials + brief supportive phone calls (number NR) | IG2 (Enhanced): Enhanced support group. Patterned after typical caregiver support groups in the community and was developed by using the principles outlined in a manual on support groups published by the Alzheimer's Association. It primarily focused on developing peer support rather than on teaching participants how to care for their own needs. Also given 2 packets of materials. |
| Pillemer, 2002219  Fair | Improve psychological well-being of cg | One-on-one Peer support of current or former cgs | No peer contact | Peer Support Project. Volunteers received training and were paired with caregivers. The emphasis was support that persons in the same life situation can provide to one another without professional intervention. The volunteer training focused on social support as well as a tool kit of exercises and activities to conduct with the caregivers. The activities were designed to help the caregivers openly discuss their situations and to discover ways to obtain better support from other network members. |
| Winter, 2006220  Fair | reduce depression and burden in cgs and enhance a sense of personal gain. | Telesupport group | No support group | Telesupport groups were conducted by trained social workers who used conference-calling technology to link 5 caregivers per group for an hour weekly. The primary goal was to enhance caregiver ability to manage daily stressors by providing emotional support and validation. Faciliators initially focus on developing group cohesion. Caregivers express emotions and share coping strategies, assist eachother in problem-solving, and share educational resources. |
| **Physical activity counseling** | Connell 2009221  Fair | increase cg PA and decrease perceived burden, depression, and stress | Telephone-based motivational interviewing for PA | Written materials at end of study | Health First video featuring spouse caregives discussing strategies for fitting physical activity into their daily routine. Choice of exercise videos (low impact exercise for those with limited mobility or low impact aerobic dance and movement). Booklet "Pep Up Your Life" distributed by the AARP which contains information on flexibility, strength and balance exercises. Health First workbook that explained each step of the program and included forms for participants to keep track of their weekly goals and progress toward their long-term goals. Two motivational newsletters. Telephone counseling calls to address potential or perceived conflicts with participation. |
| Hirano 2011222  Fair | reduce subjective sense of burden and physical symptoms in older adult caregivers through increased physical activity | Exercise prescription | No exercise intervention | Prescribed regular exercise with moderate intensity (3 metabolic equivalents, or METS) 3 times per week. Carried a pedometer that recorded daily steps and asked to record their daily progress of exercise amount in a journal (same as CG). |
| King, 2002223  Fair | Improve fitness, reduce psychological distress, reduce risk of negative CV outcomes, and improve sleep quality through increased exercise | PA counseling for caregivers | Nutrition education | Provided with an exercise prescription in which exercise intensity was gradually increased over the initial 6-week period to 40-59% of heart rate reserve based on the peak heart rate achieved during symptom-limited treadmill testing. Participants were instructed to engage in at least 4 30- to 40-minute exercise sessions per week of primarily brisk walking, in a home-based format. Participants were encouraged to increase other forms of activity throughout the day, such as leisurely walking and gardening. Telephone contact occurred on a biweekly basis during the first 2 months and then once monthly through 12 months. Calls were used to monitor progress, answer questions, and provide feedback. Participants completed brief daily logs to record physical activity. Health educators utilized behavioral strategies based on social cognitive theory. |

**Abbreviations:** AARP = American Associated of Retired Persons; ACT = Advancing Caregiver Training; AD = Alzheimers Disease; cg = caregiver; CG = control group; COPE = Care of Persons with Dementia in their Environment; CTIS = computer-telephone integration system; d = day; DAISY = Danish Alzheimer Intervention Study; DFCC = Dementia Family Care Coordinator; Educ = education; FCC = Family Care Coordinator; GP = general practioner; IG = intervention group; METS = metabolic equivalent; min = minutes; m = months; NP = nurse practitioner; OT = Occupational Therapist; PA = physical activity; PCP = Primary Care Physician; PIC = Partners in Caregiving; PIP = Psychoeducation Intervention Program; pt = patient; QOL = quality of life; RAI-HC = resident assessment instrument-home care; rec'd = received; REACH = Research for Enhancing Alzheimer’s Caregiver Health; sx = syptoms; tx = treatment; UC = usual care; tng = training; UK = United Kingdom; USPSTF = United States Preventive Services Task Force; wl = waitlist.