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Evaluating Dementia Training Programs for Home Care Workers: A Scoping Review

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ABSTRACT

Background and Objectives: As the prevalence of Alzheimer's disease and related dementias (ADRD) continues to rise worldwide, so does the demand for home care workers who provide essential personal care that enables individuals living with ADRD to age in place. However, there is limited knowledge about dementia-specific training programs for home care workers. This scoping review aims to examine existing dementia training programs available for home care workers and evaluate their outcomes.
Research Design and Methods: We searched five databases, including PubMed, Web of Science, CINAHL, Sociological Abstracts, and Scopus. We used the PRISMA Extension for Scoping Reviews (PRISMAScR) and Arksey and O'Malley's (2005) five-step scoping review framework. Eligibility criteria included relevant study population (paid home care workers), dementia education or training programs, original evaluations, and published in English.
Results: Of the 903 articles identified through the five databases, 17 articles met eligibility criteria and 12 were included in the final analytic sample. The results are presented in three sections: 1) training details, 2) methods and measures, and 3) training outcomes.
Discussion and Implications: This scoping review has implications for three groups of stakeholders, including researchers, governments and policymakers, and home care workers. This work underscores the importance of further implementation and evaluation of dementia training programs for home care workers.

Keywords: Home and community-based services, scoping review, Alzheimer's disease and related dementias, training programs, aging and gerontology

Background

The older adult population is growing globally, as is the prevalence of Alzheimer's disease and related dementias (ADRD) (Alzheimer's Association, 2025; Global Coalition on Aging, 2021; United Nations, 2022). Alzheimer's disease and related dementias is a broad term used to describe a subset of dementias that includes Alzheimer's disease, frontotemporal dementia, Lewy body dementia, multiple-etiology dementia, and vascular dementia (U.S. Department of Health and Human Services, 2024). Alzheimer's disease is the most common form of dementia, which is a type of brain disease that is progressive, meaning changes in the brain cause symptoms to worsen with time. Symptoms include trouble with memory, confusion, difficulty understanding and expressing thoughts and language, decreased problem-solving ability, and mobility limitations, among others (Alzheimer's Association, 2025). The rate of progression and degree of impacted abilities vary per person. Dementia primarily affects older adults; in the United States, for example, approximately one in nine (11%) adults age 65 and over has Alzheimer's disease or dementia (Alzheimer's Association, 2025; Rajan et al., 2021). Worldwide, over 55 million people are living with ADRD, and that number is projected to nearly triple by 2050 totaling 152 million people, barring the development of medical breakthroughs to prevent, slow, or cure Alzheimer's disease (Global Coalition on Aging, 2021; WHO, 2023). Throughout this manuscript, we use the term dementia because of limited statistics, training programs, and information globally on ADRD specifically.

Home care workers are part of the larger home and community-based care system, which provides "person-centered care delivered in the home and community" that "enable people to stay in their homes, rather than moving to a facility for care" (Centers for Medicare & Medicaid Services, 2025). According to the Centers for Medicare and Medicaid Services, 86.2% of people

using long-term care services receive home and community-based care (Centers for Medicare & Medicaid Services, 2025). Home care workers provide people living with chronic conditions or disabilities, including dementia, with personal assistance with activities of daily living (ADLs), such as bathing, eating, personal hygiene, and dressing, and instrumental activities of daily living (IADLs) which include transportation, cooking, and cleaning as well as other tasks (Alzheimer's Association, 2025). About 80% of people living with ADRD receive assistance at home for ADLs and IADLs (CDC, 2024). Research in low- and middle-income countries has shown that home and community-based care is beneficial for older adults aging in place, with increases in physical health and life satisfaction and decreased depression scores with variability in various groups of older adults (Wang et al., 2022).

Home care workers are disproportionately women of color and are often underpaid and undervalued for their critical work (Almeida et al., 2021; Berry & Bell, 2012; Cranford, 2020; Global Coalition on Aging, 2021). Home care workers are employed in several ways, such as through home care or home health agencies, Medicaid funded programs, individual/private hiring practices, and the gray market wherein individuals hire caregivers not part of an organization or agency. For example, the California-based In-Home Supportive Services (IHSS) program in the U.S. is Medicaid-funded and consumer-directed, meaning that care recipients hire workers to provide in home care who could be family or non-family members (California Department of Social Services, 2025). Further, home care workers are often well positioned to observe changes in their client's cognition, health, or behaviors to report to family members or medical care team members in a timely manner (Chapman et al., 2024).

Home care workers play a critical role in supporting aging in place, maintaining independence, and improving quality of life for care recipients, especially for people living with

dementia. The majority of people living with dementia globally want to age in place, with one study suggesting that over 80% of adults wanted to age in their own home and communities (Flinn & Hado, 2021; Rapaport et al., 2020; Sturge et al., 2021). There are many benefits of aging in place, including maintaining independence, lower costs compared to a long-term care facility, continuing connections with community, and overall improved quality of life (Global Coalition on Aging, 2021; UCS Leonard Davis School of Gerontology, 2025; Wiles et al., 2012). From a large qualitative study across eight countries in Europe, researchers found that economic costs for people living with dementia receiving home care were significantly lower compared to long-term care facilities (Wübker et al., 2015). Additionally, people living with dementia may benefit from aging in place given emotional attachments, familiarity with home design and community space, and a sense of connection or belongingness as their symptoms progress (Førsund et al., 2018). As dementia progresses into more severe stages, family caregivers may need to rely on the assistance of home care providers to help meet increasing care needs. Due to the rapid aging of the global population, growing preferences among older adults to age in their own home rather than in a care facility or institution, and acknowledgement of many benefits associated with home and community-based care, demand for home care workers has increased over the past half-century (Milkman, 2022; Scales, 2020; Spetz et al., 2015, United Nations, 2022; WHO, 2017).

Training home care workers who work with people living with dementia is critically important, yet these workers remain undertrained (Alzheimer's Association, 2025; Alzheimer's Disease International, 2022; Travers Altizer et al., 2025). A recent global systematic review noted a lack of training opportunities specifically focused on dementia (Kane et al., 2023). Research suggests that home care workers lack a fundamental level of dementia knowledge,

directly influencing the provision of person-centered care for people living with dementia (D'Astous et al., 2019; Goh et al., 2018; Kane et al., 2023; Polacsek et al., 2020). Providing care and support to people living with dementia requires additional knowledge and skills, including identification of signs and expressions of memory loss, communication skills, and management of challenging psychosocial and behavioral expressions (e.g., wandering, aggression, agitation) (CDC, 2019; Eggenberger et al., 2013; National Alliance for Caregiving, 2017; Parker et al., 2022; Reckrey et al., 2020). Training opportunities can bolster the knowledge and skills of the home care workforce, which could help improve recruitment, reduce turnover, and improve home care workers' financial wellness, which is critically important as we face global challenges with home care worker shortages (Global Coalition on Aging, 2021; Miller et al., 2025; Pace et al., 2024).

Despite the increasing need for a dementia-trained home care workforce, there are limited dementia-specific training programs for home care workers worldwide (WHO, 2017; Kane et al., 2023). This scoping review aims to map the existing dementia training programs for home care workers and evaluate their outcomes to better understand the current landscape and identify gaps in training efforts. Our objective was to understand the effectiveness of dementia training programs for home care workers, identify gaps in existing research, and recommend strategies for improving professional support for home care workers providing care to individuals with dementia. Conducting a scoping review is an appropriate approach to address our research objectives as they are aimed at an exploration of existing literature to identify gaps as well as gaining an understanding of the landscape of literature on this topic.

Methods

We conducted a scoping review using the methodological framework proposed by Arksey and O'Malley (2005) to examine the impact of training programs for home care workers of persons living with dementia. A scoping review is a type of research article that aims to explore the breadth of literature typically shaped by a broad research question. This project was registered on Open Science Framework and can be found here: https://doi.org/10.17605/OSF.IO/GV9TM. This review involved five steps: 1) identifying the research question; 2) identifying the relevant studies; 3) study selection; 4) charting the data; and 5) collating, summarizing, and reporting the results. Guidelines established in the Preferred Reporting Items Systemic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) were used for data reporting transparency and consistency (Tricco et al., 2018). We used EndNote – a reference management software package – to organize and manage research articles for this scoping review. Specifically, all articles identified from the search were imported into EndNote for screening with inclusion criteria, sorting articles, and automated processes to remove duplicate articles. This review was conducted by two primary reviewers (BP, JY) and two secondary reviewers (MN and KSV).

Step 1: Identifying the research question

Our research question was, "What is the landscape of training programs for paid home care workers for people living with dementia?" This research question is well-suited for a scoping review methodology as we sought to understand more about the availability of empirical dementia-specific training programs for paid home care workers globally.

Step 2: Identifying the relevant studies

The search was executed on June 24, 2024. We used five scientific research databases to search for published articles: PubMed, Web of Science, CINAHL, Sociological Abstracts, and

Scopus. PubMed is a free online database focused on biomedical and health-related literature and was chosen for this scoping review because of its topical focus. Web of Science is a paid online database and was included in this work because of its broader topic availability, including science and arts-based research. CINAHL is a paid online database focused on nursing and health literature and was selected for this research because its topical focus aligned well with our research question. Sociological Abstracts is a paid online database and was included in this scoping review because of its focus on social and behavioral sciences literature. Lastly, Scopus is an online database that offers some free and paid features and was used in this work because of its broad topic areas including health sciences and social sciences in particular. Four main concepts related to the research question informed the search strategy: 1) home care worker, 2) training, 3) dementia, and 4) home care setting. To broaden the number of potentially relevant articles, similar search terms were subsequently developed for each concept.

The term "home care worker" encompasses multiple formal and informal occupational titles that share core characteristics justifying their inclusion in this review. Despite varied job titles and classifications, these workers perform overlapping tasks, including assistance with personal care and household support, in the same setting (individual homes) for similar client populations. In the United States context, for example, the occupational title of "personal care aides" and "home health aides" share many responsibilities, including assistance with ADLs and IADLs, and both typically work in individuals' homes, though home health aides may provide some skilled care such as monitoring health conditions (Hunt et al., 2023; U.S. Bureau of Labor Statistics, 2025). Some reporting agencies refer to "home care workers" as "paid caregivers" (NHS, 2024). The commonality in work content, setting, and client needs suggests that training addressing fundamental caregiving skills, dementia-specific knowledge, and caregiver well-

being would be broadly applicable across these roles. We therefore used an inclusive search strategy to capture the full scope of the home care workforce, while acknowledging that certain specialized clinical roles (e.g., nurses providing skilled medical care) may require additional profession-specific training beyond the foundational elements examined in this review. We used the search terms "home care worker," "home health aide," "home health assistant," "home health caregiver," "home health provider," "home care aide," "home care assistant," "home care caregiver," "home care provider," "personal care aide," "personal care assistant," "personal care provider," "paid caregiver," "formal caregiver," "paid care provider," "formal care provider," "nurse aide," "nursing aide," "nurse assistant," or "nursing assistant."

To capture the concept of training, we used the search terms "training," or "education." To capture literature about training home care workers of people living with dementia, we used the search terms "dementia," "Alzheimer(s) disease," "ADRD," "cognitive impairment," or "cognitive dysfunction." To limit literature to home care settings, we used the search terms "home care," "in-home care," "home and community-based care," "home and community-based services," "HCBS," "In-Home Supportive Services," "IHSS."

Step 3: Study selection

Study selection took place using a multi-step screening process. All articles identified from the five databases were imported into EndNote. EndNote automated processes removed duplicates. We identified further duplicates that were missed by Endnote and removed those articles manually. Each article's title and abstract were screened for fit with our research question and inclusion criteria by one member of the research team (BP). Broadly, inclusion criteria included study population, intervention type, study type, and language. Specifically, inclusion criteria were: study population of paid home care workers; dementia or ADRD

education or training programs; original evaluations; and articles published in English. Exclusion criteria were: study population of unpaid caregivers; articles focused on clinical, diagnostic, assessment, or pharmacological interventions; article types including review articles, secondary analyses, descriptive or process analyses, editorials, conference abstracts, books, chapters, white papers, and reports; and articles published in languages other than English. For more information regarding inclusion and exclusion criteria, please see table 1. Articles that did not fit the inclusion criteria were excluded from further consideration and synthesis. All research team members reviewed the remaining abstracts to ensure they met inclusion criteria (BP, JY, MN, & KSV). Discrepancies related to study selection were resolved by the entire research team.

In total, 903 articles were identified in the five databases as shown in Figure 1, including 115 duplicates. After screening for fit with our inclusion criteria, 755 articles were excluded – nine were excluded because they were book chapters, six were excluded because the full-text was inaccessible, and 740 articles were excluded due to misfit of topic or methods, such as not about a dementia-specific training program. Of the 33 articles assessed for inclusion, 16 were excluded because they were not empirical (n=8), not dementia-specific (n=6), or were not home care specific (n=2). Overall, 17 articles met the inclusion criteria and underwent full-text analysis.

Four research teams published more than one article based on one of their training programs; therefore, we excluded duplicative articles published about the same program to gain more accuracy in the frequency count of training programs. We chose to include the most recent article, or the article that reported more measures focused on home care workers. The Guerrero et al. (2018, 2020) research team published three total articles with two articles about one program, and we used Guerrero et al. (2019) and Guerrero, Eldridge, and Tan (2020) for our

analysis. The Kelleher et al. (2022, 2024) research team published two articles about one program, and we used the Kelleher et al. (2024) article. The Nakanishi et al. (2018a, 2018b, 2018c) research team published three articles about one program, and we used Nakanishi et al. (2018b) for our analysis. Su et al. (2021) and Sung et al. (2022) published two articles about one program, and we used the Sung et al. (2022) article. Ultimately, the findings of this scoping review reflect analyses of 12 unique training programs.

Step 4: Charting the data

Descriptive data on included full-text articles can be found in Table 2 and includes information on authors, year, title, aims, study population, sample size, training type, location, language, methods, validated measures, and outcomes.

Step 5: Collating, summarizing, and reporting the results

In step five of this process, all reviewers/authors performed open coding and memoing, then discussed salient themes to resolve discrepancies and create a framework for the remainder of the manuscript.

Results

Of the 903 articles that were identified through the database screening, 12 articles about unique training programs met the inclusion criteria and were included in this scoping review. Our results are split into three main sections: 1) training details, 2) methods and measures, and 3) training outcomes.

Training Details

Among the 12 articles reviewed, six reported training programs in the United States (Cotter et al., 2003; Fenley et al., 2008; Guerrero et al., 2019; Guerrero et al., 2020; Terri et al, 2005; Yeh et al., 2023), and the other six were in Japan, Taiwan, the United Kingdom, Australia,

Sweden, and Canada (Fallahpour et al., 2020; Kelleher et al., 2024; Low et al., 2015; Nakanishi et al., 2018; Savundranayagam et al., 2020; Sung et al., 2022). Three training programs were offered in the English language (Guerrero et al., 2019; Kelleher et al., 2024; Yeh et al., 2023) and six articles did not mention training language (Cotter et al., 2003; Fallahpour et al., 2020; Nakanishi et al., 2018; Savundranayagam et al., 2020; Sung et al., 2022; Teri et al, 2005). Three training programs were offered in multiple languages. The study by Fenley et al. (2008) reported a training program offered in English, Spanish, Mandarin, and Cantonese. The study by Guerrero et al. (2020) offered a training program in English and Spanish. The study by Low et al. (2015) reported a training program offered in English, Mandarin, Cantonese, Vietnamese, Arabic, and Spanish.

Seven of the 12 articles reported training programs offered in person (Cotter et al., 2003; Fenley et al., 2008; Guerrero et al., 2019; Guerrero et al., 2020; Low et al., 2015; Savundranayagam et al., 2020; Teri et al., 2005), and two training programs were offered online (Kelleher et al., 2024; Yeh et al., 2023). Three training programs featured both online and in person portions (Fallahpour et al., 2020; Nakanishi et al., 2018; Sung et al., 2022).

Training programs varied in duration, with four programs lasting one to three days, eight lasting several weeks or months long, and one lasting one year. Four training programs lasted one to three days (Fenley et al., 2008; Guerrero et al., 2019; Low et al., 2015; Nakanishi et al., 2018). The study by Savundranayagam et al. (2020) featured a six-week training, occurring once per week for 2.5 hours each week. Six studies featured training programs that lasted between 10 and 12 weeks (Cotter et al., 2003; Guerrero et al., 2020; Kelleher et al., 2024; Sung et al., 2022; Teri et al., 2005; Yeh et al., 2023). The study by Fallahpour et al. (2020) featured a training program that lasted for one year.

There was a wide range of the number of participants in the studies, between eight and 292 participants. The articles reported the number of participants differently, such as those "completing the training," those at baseline, or those at follow-up time points. Across all studies, the mean number of participants was 96. Most participants were female, with a range of 76.2% to 100% and a median percentage of 90%. The articles reported training participants who had a range of races/ethnicities, with between 11.4% and 80% of participants who could be classified as nonwhite or people of color. Four studies did not report participants' race/ethnicity (Fallahpour et al., 2020; Low et al., 2015; Nakanishi et al., 2018; Sung et al., 2022).

Methods and Measures

Five of the 12 studies were randomized controlled trials or cluster randomized control trials, meaning their methods included an intervention and a control group to evaluate outcomes (Cotter et al., 2003; Kelleher et al., 2024; Nakanishi et al., 2018; Sung et al., 2022; Teri et al., 2005). Four studies used pre- and post-training assessments to evaluate outcomes at two time points (Guerrero et al., 2019; Guerrero et al., 2020; Nakanishi et al., 2018; Teri et al. 2005). Eight studies used assessments at pre-, post-, and follow-up time points (with follow-up time varying from one month to 12 months after the training) (Cotter et al., 2003; Fallahpour et al., 2020; Fenley et al., 2008; Kelleher et al., 2024; Low et al., 2015; Savundranayagam et al., 2020; Sung et al., 2022; Yeh et al., 2023).

The following section is split into five sub-sections regarding measures used to evaluate outcomes given our analyses regarding common themes: 1) dementia knowledge, 2) skills, 3) well-being, 4) job satisfaction, and 5) training satisfaction.

Dementia Knowledge

Seven of the 12 studies assessed changes in home care workers' dementia knowledge, three of which used validated measures. Of the seven articles measuring dementia knowledge, training programs provided instructional material on symptoms and stages of dementia and managing challenging symptoms and behaviors such as wandering and agitation. The study by Yeh et al. (2023) used the Dementia Knowledge Assessment Tool 2 (DKAT2). The study by Sung et al. (2022) used the Dementia Knowledge Assessment Scale (DKAS) and the Approaches to Dementia Questionnaire (ADQ). The study by Nakanishi et al. (2018) used the Japanese version of the Approaches to Dementia Questionnaire (J-ADQ). Among the four studies that did not use validated measures, the study by Fenley et al. (2008) designed an 11-item Knowledge of Alzheimer's Disease index. The study by Cotter et al. (2003) designed an instrument, but they did not further specify it in the article. The study by Kelleher et al. (2024) and the study by Savundranayagam et al., (2020) both used qualitative methods to assess changes in dementia knowledge.

Skills

Nine of the 12 studies assessed changes in home care workers' skills, which captured elements such as competence, confidence or self-efficacy, empathy, and practice behaviors. Of the nine articles measuring skills, training programs provided instructional material on communication skills with clients and family members, assisting with ADLs, caregiver stress management, person-centered approaches to caregiving, and managing challenging symptoms and behaviors including wandering, repetitive behaviors and questions, hallucinations, and issues with sleep. Of these nine studies, four used validated measures. The study by Teri et al. (2005) used the Short Sense of Competence Questionnaire (SSCQ) and the Neuropsychiatric Inventory (NPI), where staff reported client "dementia-related behavioral problems" and staff self-reported

how they reacted to these challenges. The study by Sung et al. (2022) used the Sense of Competence in Dementia Care Staff Scale (SCIDS) and the Jefferson Scale of Empathy (JSE). The study by Nakanishi et al. (2018) used the Japanese version of the Sense of Competence in Dementia Care Staff Scale (J-SCIDS). The study by Yeh et al. (2023) used the Caregiver Self-Efficacy Scale (CSE).

Among the five studies that did not use validated measures, the study by Low et al. (2015) used a five- or nine-item questionnaire regarding confidence with clients living with ADRD, though they did not specify whether the instrument was validated. The study by Guerrero et al. (2019) asked participants questions regarding their ability to care for people with dementia. The study by Guerrero et al. (2020) asked participants about their confidence in providing care for people living with ADRD. Savundranayagam et al. (2020) and Kelleher et al. (2024) used qualitative methods to explore changes in caregiver skills.

Well-Being

Four of the 12 studies assessed home care workers' well-being using validated measures, which captured experiences such as strain, burden, depression, or distress. The study by Fallahour et al. (2020) used the Strain in Dementia Care Scale (SDCS) (Fallahpour et al. 2020). The study by Nakanishi et al. (2018) used the Zarit Burden Interview (ZBI). The study by Guererro et al. (2020) and the study by Yeh et al. (2023) both used the Patient Health Questionnaire 2 (PHQ-2) to assess depression. Additionally, the study by Yeh et al. (2023) used the Caregiver Self-Assessment Questionnaire (CSAQ) to assess distress.

Job Satisfaction

Five of the 12 studies assessed home care workers' job satisfaction, and three used validated measures. The study by Low et al. (2015) used the Utrecht Work Engagement Scale

(UWES). The study by Cotter et al. (2023) used the Index of Job Satisfaction (IJS). The study by Fallahpour et al. (2020) used an organizational climate measure called the Creative Climate Questionnaire (CCQ).

Among the two studies that did not use validated measures, the study by Teri et al. (2005) did not list examples of the questions that were asked. The study by Yeh et al. (2023) reported responses to a job satisfaction question that had a 5-point Likert scale ranging from very dissatisfied to very satisfied, though they did not discuss this measure.

Training Satisfaction

Four of the 12 studies reported home care workers' training satisfaction by asking non-validated questions. The study by Guerrero et al. (2019) asked, "How much of what you learned today will help you in your work as a caregiver?" The study by Yeh et al. (2023) used Likert scales for participants to self-rate whether they learned new skills and thought the training was beneficial. The study by Savundranayagam et al. (2020) asked participants qualitative questions about how helpful the training program was in their work (Savundranayagam et al., 2020). The study by Fenley et al. (2008) asked participants if the training program was useful.

Training Outcomes

Based on our analyses of the articles, the primary outcomes included home care workers': 1) dementia knowledge, 2) skills, 3) well-being, 4) job satisfaction, and 5) training satisfaction.

Dementia Knowledge

Among the seven studies assessing dementia knowledge, those using validated measures consistently reported statistically significant improvements in dementia knowledge, while studies without validated measures also indicated improvements.

Three studies used validated measures. The study by Yeh et al. (2023) reported statistically significant increases in the DKAT2 from pre- to post-training, and between pre-training and 3-month follow-up, but not from post-training to follow-up. The study by Sung et al. (2022) reported statistically significant increases in the DKAS and ADQ at post-training. The study by Nakanishi et al. (2018) reported significant improvements in the J-ADQ.

Among the four studies that did not use validated measures, the study by Fenley et al. (2008) found statistically significant improvement in the Alzheimer's Disease Index at both post-training and 3-month follow-up for all classes. The study by Cotter et al. (2003) reported that multiple classes had increased dementia knowledge, though did not assess statistical significance. The studies by Kelleher et al. (2024) and Savundranayagam et al. (2020) both noted qualitative improvements in participants' dementia knowledge.

Skills

Nine studies assessed home care workers' skills, and those using validated measures showed mixed results with some statistically significant improvements, while studies without validated measures generally reported improvements in caregiving self-efficacy, ability, and confidence.

Among the four studies that used validated measures, the study by Teri et al. (2005) found no statistically significant differences in SSCQ scores, though there were improvements overall, and the NPI resulted in "less impact from resident problems at post-test whereas staff in the control condition reported more" (691). The study by Sung et al. (2022) did not find statistically significant increases in SCIDS scores post-training, though all scores showed statistically significant increases compared to the control group at the one-month follow-up. Sung et al. (2022) found statistically significant increases in JSE scores for the training group

compared to the control group one month after the intervention. The study by Nakanishi et al. (2018) did not find statistically significant improvements in the J-SCIDS scores, though changes were in the expected direction. The study by Yeh et al. (2023) reported statistically significant increases in CSE scores from pre- to post-training and between pre-training and 3-month follow-up, but not from post-training to follow-up.

Among the five studies that did not use validated measures, the study by Low et al. (2015) noted that self-efficacy decreased at post-training but improved at the 12-month follow-up for case managers and home care workers. The study by Guerrero et al. (2019) reported statistically significant improvements in caregivers' ability to care for people with dementia. The study by Guerrero et al. (2020) found statistically significant increases in confidence in providing care for people living with ADRD between pre- and post-training. The study by Savundranayagam et al. (2020) found that participants reported learning person-centered care techniques and improving communication skills. The study by Kelleher et al. (2024) reported participant improvement in confidence, perspective taking, and adaptability.

Well-being

Four studies assessed care workers' well-being, and most reported no statistically significant improvements in various measures, though some indicated changes in the desired direction without significance testing. The study by Fallahpour et al. (2020) reported statistically significant improvements in "balancing competing needs," though no statistically significant improvements in other aspects of the SDCS. The study by Nakanishi et al. (2018) reported no statistically significant improvements in the ZBI, though changes decreased, indicating less burden. The study by Guerrero et al. (2020) found no statistically significant changes in the PHQ-2 between pre- and post-training, though there were small decreases in Cohort A and small

increases in Cohort B. The study by Yeh et al. (2023) found that 7% of participants indicated experiencing depression on the PHQ-2 at pre-training compared to 11% at post-training and 6% at 3-month follow-up with no significance testing conducted. Additionally, the study by Yeh et al. (2023) found that 46% of participants indicated experiencing high distress on the CSAQ at pre-training compared to 50% at post-training and 35% at 3-month follow-up with no significance testing conducted.

Job Satisfaction

Among the five studies that assessed home care workers' job satisfaction, those utilizing validated measures generally found no statistically significant changes, while studies without validated measures reported subjective improvements in job satisfaction.

Three studies used validated measures. The study by Low et al. (2015) reported no statistically significant changes in the UWES. The study by Cotter et al. (2003) noted an improvement in job satisfaction for home care workers "who received individual clinical support," though it is unclear whether this improvement was statistically significant. The study by Fallahpour et al. (2020) reported no statistically significant differences in the CCQ between the baseline and follow-up.

Among the two studies that did not use validated measures, the study by Teri et al. (2005) study found overall improvements in job satisfaction, though these changes were not statistically significant. The study by Yeh et al. (2023) found that 82.6% of participants reported feeling satisfied or very satisfied with their job.

Training Satisfaction

All four studies that assessed training satisfaction indicated high levels of participant satisfaction, with the majority finding them useful and helpful. The study by Guerrero et al.

(2019) found that 80% of participants felt the training was useful to them. The study by Yeh et al. (2023) reported that 94% of participants were very satisfied with the training program. The study by Savundranayagam et al. (2020) noted that participants stated the training was useful and helpful. The study by Fenley et al. (2008) reported that 79% of the participants found the training useful to their work.

Discussion

In this scoping review, we examined the landscape of dementia training programs for home care workers. Our objectives were to increase knowledge about the efficacy of training programs available to home care workers and to identify gaps in the literature to advocate for better professional support for home care workers. Our analysis placed particular attention on training outcomes related to dementia knowledge, skills, well-being, and job and training satisfaction. Out of 903 articles that were identified through five databases, 12 articles were included in the full analytic sample, which demonstrates the limited literature on the efficacy of dementia training programs for home care workers. The small number of articles that met inclusion criteria indicates a need for more evaluation studies on the efficacy of training programs for home care workers of people living with ADRD globally.

Strengths and Limitations

Our scoping review had several strengths. We used an expansive list of terms to capture the complexity and variety of articles about this subject. We followed rigorous methods and reporting transparency as outlined by Arksey and O'Malley (2005) and the protocol offered by the PRISMA Extension for Scoping Reviews.

Our scoping review had many limitations. The small sample size (n=12) limited generalizability of results, though suggests the need for more empirically evaluated dementia specific training programs. The small sample size (n=12) limited our ability to draw conclusions

about which elements create the most advantageous training, such as training type (e.g., in person vs. online), length of training (e.g., single session vs. multi-weeks), and hours of content (e.g., 2 hours vs. 35 hours). In our search of the databases, we found many articles about training programs for unpaid or family caregivers of people living with ADRD or dementia but reviewing them was beyond the scope of our research questions. There were two qualitative articles (Kelleher et al., 2024; Savundranayagam et al., 2020) that did not fit into the distinct categories of home care workers' dementia knowledge and skills, which may undercount the number articles described in those sections. Various countries or regions of the world may use different terminology for home care workers that were not fully captured in our search terms. Findings were also limited given that the search results excluded studies that were not published in English. Further, there may be dementia-specific training programs for home care workers that exist globally but have not been empirically evaluated or published in a peer-reviewed journal yet and, thus, were not included in this analysis. Lastly, our scoping review did not review or compare outcomes regarding persons receiving care that some of the studies addressed (Low et al. 2015; Nakanishi et al. 2018; Teri et al. 2005).

Implications and future directions

This scoping review has implications for three key stakeholder groups: 1) researchers 2) governments and policymakers worldwide and 3) home care workers.

This work has several key implications for researchers. One major implication is a call for the use of and/or development of more tools to assess dementia-specific training programs, especially if researchers provide culturally and linguistically appropriate versions of validated measures. In the majority of the domains we examined in these training programs (dementia knowledge, skills, well-being, job satisfaction, and training satisfaction), researchers used non-

validated measures to evaluate and assess them. Specifically, more articles used non-validated measures in assessing dementia knowledge changes, skills, and training satisfaction. While we understand the need for flexible and tailored assessments for specific training programs, the use of varied and/or non-validated measurements creates challenges for comparing the quality, effectiveness, and overall outcomes across dementia-specific training programs.

Further, several training programs included curriculum about neurodegenerative aspects of dementia, behavioral, physical, and psychological symptoms of dementia, and other information about dementia without assessing changes in dementia knowledge. More specifically, studies evaluating skill building and development (not dementia knowledge) provided some similar instructional topics specific to dementia knowledge, such as addressing challenging symptoms and behaviors associated with dementia, though they did not measure knowledge change (Guerrero et al., 2019; Guerrero et al., 2020; Low et al., 2015; Teri et al., 2005). Some studies did not report material included in the training curriculum (Cotter et al., 2003; Fenley et al., 2008; Yeh et al., 2023) or did not assess changes in dementia knowledge or skills (Fallahpour et al., 2020). This highlights the importance of assessing similar domains across evaluations of dementia-specific training programs in order for researchers to draw conclusions about effectiveness, outcomes, and other characteristics across programs.

Moreover, as this workforce is vital to helping older adults age in place**,** future evaluations of training programs could include qualitative or mixed-methods studies, in addition to quantitative studies, to further examine the context of training or learning environments, larger community environments, and the setting in which home care workers provide dementia-specific care. Additionally, future research could address the accessibility of training programs and home and community-based resources for persons living with dementia (Ward-Griffin et al., 2011).

More research is also needed to explore the perspectives, attitudes, and lived experiences of home care workers to further identify challenges and solutions to better support them in their roles.

This work has implications for governments and policymakers. To build the care infrastructure needed in our communities, worldwide initiatives, movements, and governmental agencies must do more to improve dementia-specific training programs to provide more support and reduce stress for caregivers (Ejaz et al., 2008), and to reduce the employment precarity that home care workers face. For example, the WHO established a global action plan for dementia that includes seven main action areas, one of which details support for dementia carers with recommendations for establishing training programs, protection for caregivers via benefits, policies combatting discrimination, and resources "to improve knowledge and skills, reduce emotional stress and improve coping, self-efficacy and health" (WHO, 2017:82). Further, Alzheimer's Disease International lists national dementia plans, which includes over 48 countries and territories (Alzheimer's Disease International, 2024). One nation-specific example is the United States, where there is a coalition of organizations, stakeholders, and advocates called *Care Can't Wait*, working together and urging Congress to win investments that create millions of caregiving jobs and expand home and community-based services (California Legislative Information, 2023). Additionally, governments could do more to increase funding for evaluations to expand our understanding of the efficacy and effectiveness of training programs for home care workers of people living with ADRD. For instance, the National Institutes of Health (NIH) funded the National Dementia Workforce Study (NDWS) to build a data infrastructure for researchers and policymakers to ask and answer questions to help strengthen the workforce of

clinicians and care providers required by the growing population of people living with ADRD in the United States. (NIH RePORTER, 2023).

Additionally, this work has implications for home care workers themselves. Although limited by a small sample size, the majority of studies noted improvement in dementia knowledge and/or skills, demonstrating the importance of training programs for these caregivers. Furthermore, all articles that measured training satisfaction reported high rates of satisfaction across training programs, ranging from 79% to 94% satisfaction, which highlights how participants enjoyed the training. Training home care workers can reduce turnover, improve overall job satisfaction, and is crucial to continuing to support home care workers in their roles (Luz & Hanson, 2015). This paper suggests that dementia-specific training programs can be valuable to home care workers by improving dementia knowledge and skills such as self-efficacy and confidence, empathy, and other practice related skills.

Conclusion

As the prevalence of ADRD and the desire to age in place increases, the demand for home care workers continues to rise (Alzheimer's Association, 2025; Global Coalition on Aging, 2021; United Nations, 2022). Despite this increasing need and the vital work that home care workers provide, this caregiver workforce remains undertrained and has limited opportunities for dementia-specific training (Alzheimer's Disease International, 2022; Kane et al., 2023). Training programs have the potential to benefit home care workers both professionally and personally through gains in dementia knowledge and caregiving skills to better support their clients, and by learning how to mitigate their own distress or depression when managing their clients' dementia symptoms that can contribute to increases in their stress and burden. This work has important implications for several stakeholder groups, including researchers, governments and policymakers, and home care workers. The small number of articles we found highlights a need

for the use of and/or development of validated culturally and linguistically appropriate standardized measures to evaluate training programs. This scoping review underscores the importance of further implementing and evaluating dementia-specific training programs for home care workers internationally.

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Tables

Table 1: Inclusion and exclusion criteria

Categories	**Inclusion**	**Exclusion**
Study populations	Paid home care workers	Unpaid home care workers, grey market-hired home care workers
Intervention types	Dementia education or training programs	Clinical, diagnostic, assessment, pharmacological
Study types	Original evaluations	Review articles, secondary analyses, descriptive studies, editorials, conference abstracts, books, chapters, white papers, reports
Language	Articles published in English	Articles published in languages other than English

Table 2: Summary of studies on training home care workers of people living with dementia

Authors	Year	Title	Aims	Population	Sample	Training Length and Modality	Location	Language	Methods	Validated Measures	Outcomes
Cotter et al.	2003	Collaborative community-based research and innovation	"Explore the efficacy of increased training and a combination of increased training and individual support for homecare aides in rural areas."	Home care workers	N=29	Six hours training in person	U.S.	Not listed	Randomized controlled trial	Index of job satisfaction	Increased dementia knowledge.
Fallahpour et al.	2020	Dementia Care Education Targeting Job Strain and Organizational Climate Among Dementia Care Specialists in Swedish Home Care Services	"Evaluate the effects of a dementia care education model targeting self-reported job strain and organizational climate, among dementia care specialists in homecare service"	Dementia care specialist who worked in homecare	N=34	12 months long training online and in person	Sweden	Not listed	Pre, post, and 12-month follow up	Strain in Dementia Care Scale	Improvement on job strain though no statistically significant improvements in other aspects of the SDCS[a]
Fenley et al.	2008	Effect of Alzheimer's training on multicultural personal care aides	"Examine the efficacy of efforts by NYC DFTA[b] to enhance the capabilities of ethnically diverse trainees…to train personal care aides (PCAs)[c]."	PCAs working with older adults with Alzheimer's disease	144 trainees participated in the project	10-hour dementia training program in person	U.S. (New York)	English, Spanish, and Mandarin/ Cantonese classes	Pre, post, and 3 month follow-up	None	Increased dementia knowledge and high percentage of satisfaction
Guerrero et al.	2019	Training for In-Home Supportive Services Caregivers in an Underserved Area	To implement a training program for IHSS[d] caregivers with courses on three different topics to improve care to clients.	IHSS caregivers	N=292	Single session, 2 hours total, in person	Riverside County, CA	English	Pre/posttest	None	Increased dementia knowledge and caregiving skills.
Guerrero et al.	2020	Competency-based training for in-home supportive services	To implement and evaluate a competency-based	IHSS caregivers	N=51-63	10 weeks, 35 hours	Riverside and Los Angeles	English, Spanish	Pre/posttest	CSAQ[f], PHQ-2[g]	Increased dementia knowledge

		providers of consumers with ADRD[e].	training program for IHSS caregivers of people living with ADRD.			total, in person	Counties, CA				and caregiving skills; low distress; low depressed mood.
Kelleher et al.	2024	A process evaluation of the NIDUS[h]-Professional dementia training intervention for UK homecare workers	The goal of the training was to improve staff's sense of confidence in dementia care, reduce burnout, and improve the quality of care and life of clients with dementia	Home care workers	N=89	Six sessions of 60-75 minutes each, online training program	UK	English	Randomized controlled trial	None	Increased skills, confidence, and enhanced relationships with clients and peers
Low et al.	2015	The Lifestyle Engagement Activity Program (LEAP): Implementing Social and Recreational Activity into Case-Managed Home Care	To evaluate the effect of LEAP, a training and practice change program on the engagement of home care clients by care workers. Secondary aims are to evaluate the impact of the program on changes in client mood and behavior.	Home Care Clients Home Care Managers and Care Workers	Home Care Clients N= 189 Care Managers/Workers N = 162	Case managers, one three hour session; care workers, four two or three hour training sessions	Australia	English, Chinese (Mandarin and Cantonese), Vietnamese, Arabic, Spanish	Quasi-experimental Design: Data were collected 6 months before program commencement, at baseline, and 6 and 12 months.	5-item subset of the Utrecht Work Engagement Scale	Mean case manager and worker work satisfaction scores and self-efficacy scores were significantly higher at -6 months and +12 months, compared with 0 months.
Nakanishi et al.	2018	Dementia behaviour management programme at home: impact of a palliative care approach on care managers and professional	To investigate the effects of the Behaviour Analytics & Support Enhancement (BASE) programme on the attitudes towards dementia care among professionals.	Long term care providers	N=46 (39 care managers and 7 professional caregivers)	"Behaviour Analytics & Support Enhancement (BASE, a behavior management program) programme"	Japan	Unclear	Mixed methods, 2 day educational training, data collected at baseline and follow-up	Japanese versions of the ADQ[i], ZBI[j], and SCIDS[k]	A significant improvement in ADQ. No significant difference between baseline and follow-up in

		caregivers of home care services									the ZBI or SCIDS.
Savundranayagam et al.	2020	Feasibility of a Dementia-Focused Person-Centered Communication Intervention for Home Care Workers	"This study assessed the feasibility of Be EPIC[l], a dementia-focused, person-centered communication intervention for personal support workers (PSWs)"	Personal support workers	Two groups, N=13 and N=8	Six sessions lasting 2.5 hours each, in person	Canada	Not listed	Semi-structured interviews and focus groups	None	Four main findings "environment, person-centered communication, enhanced relationships and clients' abilities, preferences, and social histories"
Sung et al.	2022	Effects of a dementia virtual reality-based training with peer support for home care workers: A cluster randomized controlled trial	"This study aimed to evaluate the effects of a dementia VR[m]-based training and peer support on dementia knowledge, attitude, competence, and empathy of home care workers"	Home care workers	N=124 assigned to VR group or control group	VR group received "3-month dementia care e-book modules, dementia VR-based activity and 1-h monthly face-to-face peer support group meetings."	Taiwan	Not listed	Assessed at baseline, the end of the intervention, and one-month post intervention	DKAS[n], ADQ, SCIDS	Statistically significant increases for the DKAS and ADQ but not SCIDS at post-training
Teri et al.	2005	STAR[o]: A Dementia-Specific Training Program for Staff in Assisted Living Residences	Describes the STAR program "designed to teach direct care staff in assisted living residences to improve care and reduce problems in residents with dementia"	Staff and residents in assisted living residences	N=114 staff N=120 residents	Two 4-hr workshops, four individualized on-site consultations, and three leadership sessions. Conducted in the	US	Not listed	Randomized controlled trial	SSCQ[p]	No statistically significant improvement, though increased dementia knowledge overall

						assisted living residence over 2 months					
Yeh et al.	2023	Enhancing Dementia Knowledge and Self-Efficacy of In-Home Supportive Services Caregivers Through Online Training	To implement and evaluate a competency-based training program for IHSS caregivers of people living with ADRD.	IHSS caregivers	N=54	10 weeks, 35 hours total online	Alameda County, CA	English	Pre/posttest, 3-month follow-up	DKAT2[q], Caregiver Self-efficacy scale, CSAQ, PHQ-2	Increased dementia knowledge and caregiving skills; moderate distress; low depressed mood, high training satisfaction.

a. Strain in Dementia Care Scale
b. New York City Department for the Aging
c. Personal care aides
d. In-home supportive services
e. Alzheimer's disease and related dementias
f. Caregiver Self-Assessment Questionnaire
g. Patient Health Questionnaire 2
h. New Interventions for Independence in Dementia Study
i. Approaches to Dementia Questionnaire
j. Zarit Burden Interview
k. Sense of Competence in Dementia Care Staff
l. Environment, Person-Centered Communication, I Matter, Client's Abilities
m. Virtual reality
n. Dementia Knowledge Assessment Scale
o. Staff Training in Assisted living Residences
p. Short Sense of Competence Questionnaire
q. Dementia Knowledge Assessment Tool 2

Table 3. Summary of Outcomes by Study.

	Measures of Dementia Knowledge	Measures of Caregiving Skills	Measures of Well-being	Measures of Job or Work Satisfaction	Measures of Training Satisfaction
Cotter et al. 2003	Non-validated measures	Not reported	Not reported	Index of Job Satisfaction	Not reported
Fallahpour et al. 2020	Not reported	Not reported	SDCS[a]	CCQ[b]	Not reported
Fenley et al. 2008	Non-validated measures	Not reported	Not reported	Not reported	Non-validated measures
Guerrero et al. 2019	Not reported	Non-validated measures	Not reported	Not reported	Non-validated measures
Guerrero et al., 2020	Not reported	Non-validated measures	Non-validated modified CSAQ[c], validated PHQ-2[d]	Not reported	Not reported
Kelleher et al. 2024	Non-validated measures	Non-validated measures	Not reported	Not reported	Not reported
Low et al. 2015	Not reported	Either 5 or 9 item questionnaire (unclear if validated)	Not reported	5-item subset of the Utrecht Work Engagement Scale	Not reported
Nakanishi et al. 2018	J-ADQ[e]	J-SCIDS[f]	ZBI[g]	Not reported	Not reported
Savundranayagam et al., 2020	Non-validated measures	Non-validated measures	Not reported	Not reported	Non-validated measures
Sung et al. 2022	DKAS[h], ADQ[i]	SCIDS[j], JSE[k]	Not reported	Not reported	Not reported
Teri et al. 2005	Not reported	SSCQ and Neuropsychiatric Inventory	Not reported	Non-validated measures	Not reported

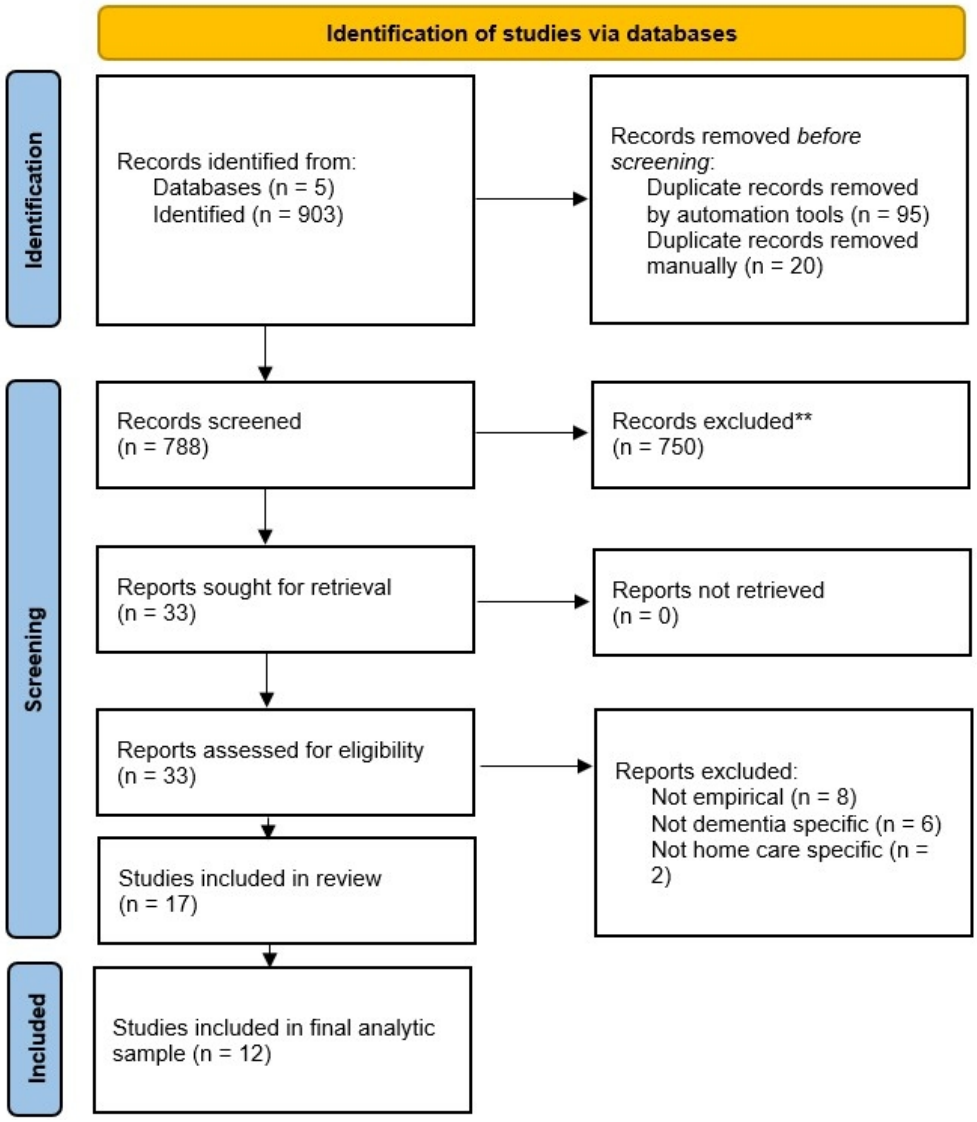
Yeh et al. 2023	DKAT2[l]	Self-Efficacy Scale	CSAQ, PHQ-2	Reported outcomes	Non-validated measures

a. Strain in Dementia Care Scale
b. Creative Climate Questionnaire
c. Caregiver Self-Assessment Questionnaire
d. Patient Health Questionnaire 2
e. Japanese Approaches to Dementia Questionnaire
f. Japanese Sense of Competence in Dementia Care Staff
g. Zarit Burden Interview
h. Dementia Knowledge Assessment Scale
i. Approaches to Dementia Questionnaire
j. Sense of Competence in Dementia Care Staff
k. Jefferson Scale of Empathy
l. Dementia Knowledge Assessment Tool

Table 4. Analytic matrix comparing all articles (n=12).

	Multiple Languages	In-Person Training	Online Training	Single-Session Training	Multi-Week Training	Measures for Dementia Knowledge	Instruments for Well-being	Training Satisfaction Assessed	Client Outcomes Assessed
Cotter et al. 2003	☐	☑	☐	☐	☑	☑	☐	☐	☐
Fallahpour et al. 2020	☐	☑	☑	☐	☑	☐	☑	☐	☐
Fenley et al. 2008	☑	☑	☐	☑	☐	☑	☐	☑	☐
Guerrero et al. 2019	☑	☑	☐	☑	☐	☐	☐	☑	☐
Guerrero et al. 2020	☑	☑	☐	☐	☑	☐	☑	☐	☐
Kelleher et al. 2024	☐	☐	☑	☐	☑	☑	☐	☐	☐
Low et al. 2015	☑	☑	☐	☑	☐	☐	☐	☐	☑
Nakanishi et al. 2018	☐	☑	☑	☑	☐	☑	☑	☐	☑
Savundranayagam, et al. 2020	☐	☑	☐	☐	☑	☑	☐	☑	☐
Sung et al. 2022	☐	☑	☑	☐	☑	☑	☐	☐	☐
Teri et al. 2005	☐	☑	☐	☐	☑	☐	☐	☐	☑
Yeh et al. 2023	☐	☐	☑	☐	☑	☑	☑	☑	☐

Figure 1: Flowchart of study selection process



This figure shows a vertical flow chart depicting the scoping review process in various stages, including identification of studies, screening, and included. Regarding the identification step, we used five databases and identified 903 records (or manuscripts). In this same step, there were some records removed before screening for various reasons: 1) 95 duplicate records were removed by automation tools 2) 20 duplicate records were removed manually. In the screening step, 788 records were screened, and 750 records were excluded. There were 33 records sought for retrieval. We assessed 33 records for eligibility, and many were excluded for the following reasons: 1) 8 were excluded because they were not empirical 2) 6 were excluded because they were not dementia specific and 3) 2 were excluded because they were not home care specific. Overall, there were 17 studies included in the review. In the final step, included, there were 12 studies included in the final analytic sample.

116x140mm (144 x 144 DPI)