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Clinical Geriatrics - Original Investigation

The Dementia Caregiver Toolbox: a synchronous video pilot intervention to boost role preparedness and self-efficacy

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Most dementia caregivers receive no formal training. Although dementia caregivers want information to help them prepare for their new role, they often have difficulty finding the information they seek. The Dementia Caregiver Toolbox, a structured, synchronous 10-week telehealth intervention, was designed to boost dementia caregiver role preparedness and self-efficacy by providing broad education about dementia, introduction to skills to help caregivers provide care, and information about available dementia caregiver resources. In this pilot study, we evaluated feasibility, acceptability, and benefits of The Dementia Caregiver Toolbox using a single-arm design. Of 48 eligible dementia caregivers, 32 enrolled in the intervention and 22 completed all data collection sessions. Self-reported satisfaction was high for all aspects of the caregiver experience. Role preparedness and self-efficacy increased from baseline to post-treatment, with medium to large effect sizes ($d = 0.74$ and $d = 0.94$, respectively). The current results provide preliminary support for a synchronous video intervention for dementia caregivers.

Key words: Alzheimer's disease, self-efficacy, dementia caregiver, caregiving, role preparedness

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INTRODUCTION

More than 11 million people in the United States, typically family and friends, currently serve as caregivers for persons diagnosed with dementia, providing an estimated 18 billion hours of unpaid care [1]. Despite the significant time commitment, dementia caregivers typically have no formal training before assuming the role of caregiver [2,3]. Consequently, dementia caregivers are at an increased risk for many negative outcomes, including increased mental and physical health problems and social isolation, even when compared to caregivers of people without dementia [4,5]. Chen & Lin (2022) explored the experiences of dementia caregivers after initial diagnosis. Some caregivers seemed rather unphased by the diagnosis because it was consistent with their observations and expectations. Others described feelings of helplessness and confusion. One caregiver shared, "At this point, I don't know what I should do next. At the beginning, it was total confusion, like a drowning person who is unable to reach out to their rescuer". Despite the range of initial reactions, all caregivers had questions related to the diagnosis, disease course, and providing care [6].

One caregiver summarized the benefits of information, stating, “Being well informed gave me a sense of control of Alzheimer’s disease. I felt like I could better plan for what was coming” [6]. Although dementia caregivers crave information about their new role, they often have difficulty finding the information they seek. Anticipatory guidance is the process of providing additional, proactive counseling about disease prognosis to aide in preparation and future planning after initial diagnosis and has been recognized as being an important component of care for those with other chronic diseases (such as cancer) but has been identified as a gap in dementia caregiving [7]. Although there are numerous books, internet resources, skills-training courses, and other resources for dementia caregivers, it can be difficult to navigate the landscape of resources available and identify what information and programs are reliable and evidence-based without some foundation of knowledge. Psychoeducational interventions aimed at providing dementia caregivers with that foundational knowledge about dementia diagnosis and the caregiving role, including an introduction to vetted national and local resources available to them, can provide a road map that may reduce negative outcomes.

Caregiver role preparedness refers to the degree to which a person feels prepared for the emotional and pragmatic demands of caregiving, such as completing day-to-day physical caregiving tasks, providing emotional support, scheduling and coordinating medical services, and handling emergencies [8]. While these tasks alone have been known to increase caregiver stress and burden, insufficient role preparation adds to the burden felt by dementia caregivers [9]. Improving caregivers’ perceived role preparedness reduces negative symptoms associated with caregiving, such as burden, depression, anxiety, and stress [10-12]. For example, high role preparedness in family caregivers in palliative care settings (i.e., caregivers of people with heart failure, cancer, stroke, etc.) was consistently associated with lower levels of anxiety and depression, and higher levels of hope and reward [10,12,13]. A systematic review including more than 4,200 caregivers of older adults with varying diagnoses found that caregivers who received training or education relating to the caregiving role had lower perceived stress, which consequently improved the quality of care given to the care recipient [14]. Though role preparedness has been extensively studied in other types of caregivers, less focus has been given to role preparedness in dementia caregivers. Shyu and colleagues [15] examined the influence of role preparedness in Taiwanese dementia caregivers and found that high preparedness was associated with improved mental health and an increase in rewarding caregiver experiences. A recent study examining the impact of role preparedness in dementia caregivers found that greater role preparedness was associated with lower depression and burden, which was associated with less potentially harmful caregiver behaviors, such as yelling and screaming at the care recipient [16]. Though a diagnosis of dementia undoubtedly causes significant stress, adequate preparation for the caregiving role has been shown to reduce the negative aspects of caregiving and increase the rewarding aspects of the role [14,15]. Self-efficacy is a psychological construct that refers to the caregivers’ perceived confidence in their ability to successfully manage the responsibilities and tasks of the caregiver role [17]. A caregiver’s self-efficacy influences the decisions they make, how persistent they will be when challenges arise, and the amount of stress and burden they will experience as a result of their caregiving responsibilities [18]. Role preparedness and self-efficacy are related constructs, with role preparedness referring to the gathering of information and resources needed to respond to an event or circumstance, while self-efficacy refers to the belief that one can be successful in their response. A lack of information and uncertainty regarding how to provide care (a lack of role preparedness) increases caregiver stress and has been reported to ultimately compromise the caregiver’s well-being and self-efficacy [11]. Dementia caregivers with higher levels of self-efficacy are more likely to identify positive aspects of caregiving, utilize coping mechanisms while under stress, and experience less depressed mood [19, 20]. Self-efficacy is domain specific, in that one can have strong self-efficacy for one specific domain and lack self-efficacy in another domain [17]. Interventions that increase both role preparedness and self-efficacy for dementia caregivers may be most effective in protecting against the negative consequences associated with the role [19-21]. Delivery of such interventions needs to minimize barriers to participation.

The demanding nature of caregiver often acts as a barrier to accessing in-person care services and programs. According to the AD facts and figures report [1], in addition to the hours spent providing care for the diagnosed individual, six in ten dementia caregivers work an average of 35 hours per week. These demands interfere with the caregiver’s ability to attend in-person support and education programs, which often requires time not just for the program, but also for tasks like finding respite care for the care-recipient and traveling to and from the program. Additionally, many caregivers are uncomfortable with leaving the care recipient home alone and/or are unable to find respite care, despite their efforts [22]. These difficulties are often intensified for carers in rural locations. For example, as compared to their urban counterparts, rural dementia caregivers typically know of fewer available services and specialty providers and must travel significantly farther to find services [23]. Telehealth services, provided via video or phone, can reduce these barriers. Though the original concept of using telehealth focused on providing basic healthcare to patients in rural locations, telehealth use has grown to include many different practices and specialties [24,25]. A systematic review [26] of 14 different dementia caregiver interventions delivered via telehealth found that computer-based interventions proved to be just as effective at improving symptoms of stress, anxiety, and depression as in-person interventions. Studies have also reported significant improvements in caregiver burden and coping abilities in intervention groups offered via video telehealth [27-29]. The growing utilization of telehealth underscores its efficacy and acceptance and provides a novel approach to overcoming common barriers to in-person care for dementia caregivers.

Role preparedness and self-efficacy have been described as modifiable constructs that can be improved through educational programs and skills training interventions [17,21]. The Dementia Caregiver Toolbox is a structured caregiver course offered through a synchronous video platform, designed to boost role preparedness and self-efficacy for dementia caregivers by providing broad education about dementia, introduction to skills to help caregivers provide care, and information about available national and local dementia caregiver resources, with the goal of providing a roadmap of the dementia caregiving experience. The telehealth platform was specifically chosen to improve access to the intervention for rural caregivers and caregivers facing other barriers to in-person care. The goal of the current project was to understand the feasibility and acceptability of the Dementia Caregiver Toolbox.

MATERIALS AND METHODS

Description of intervention

Manual

We created a 118-page intervention manual containing ten modules and a resource list of books and websites related to dementia caregiving. Each virtual course session corresponded with one module (Tab. I).

Intervention structure

Except for the first and last sessions, which were aimed at introducing and wrapping up the intervention, each session included a review of the prior session's main points, a brief discussion of the previous week's homework assignment, new material led by the instructor, discussion of new material, and review of homework to complete the following week.

Participants

The intervention was run within the VA [redacted]. Caregivers were either a Veteran caring for a person with dementia or a non-Veteran caring for a Veteran with dementia. Interested individuals were referred by providers and were contacted by program staff, or they were given information by providers and contacted program staff directly.

Inclusion criteria included (1) aged 18 years or older; (2) English speaking; (3) providing care to someone with dementia; (4) identify as a Veteran or be caring for a Veteran with dementia; (5) have access to internet and a device (e.g., smartphone, computer, tablet) with audio and video, and (6) willingness to participate in virtual pre-and post-course questionnaires. Exclusion criteria included (1) non-English speaker; (2) unable to attend sessions due to scheduling conflicts, and (3) caring for someone who does not have dementia.

A recruitment flyer was sent to VA email listservs which primarily included providers in mental health, social work, and geriatrics to recruit eligible caregivers. Recruitment began in July 2022. The present study is based on data collected from caregivers who completed the intervention from September 2022 through July 2023. Caregivers were screened for eligibility by phone and eligible caregivers were enrolled. Whenever possible, caregivers were given the option to enroll in a morning group or an afternoon group to offer greater flexibility. We collected data before and after intervention participation for all participants.

Data collection and analysis

Pre-intervention baselines were scheduled via VA Video Connect (VVC), an audio and video software program that is the official technology platform used for telehealth within the VA system. All pre-intervention baselines took place before the first session of the intervention. Pre-intervention baselines included administration of questionnaires assessing role preparedness (*Preparedness for Caregiving Scale*, PCS) [8] and self-efficacy (*Caregiving Self-Efficacy Scale*, CSES-8) [30]. PCS measures how well-prepared a caregiver is to take on the caregiver role with 5 items using 4-point response options and has high internal consistency (Cronbach's Alpha was 0.72). CSES-8 is a brief 8-item instrument that asks respondents to rate their confidence in their ability to manage caregiving tasks on a 10-point scale. This instrument has high internal consistency (Cronbach's Alpha was 0.89 and 0.88) and test-retest reliability (0.73). Caregivers also completed the Older Americans Resources and Services (OARS) Activities of Daily Living (ADL) scale [31] to assess the level of functional impairment in care recipients, with12-items rated on a 3-point scale. These items demonstrated acceptable goodness-of-fit

Table I. Table of contents.

Week	Session title	Contents
1	Introduction	Overview of course content, goals, class guidelines; Introduce group members to each other
2	What is dementia?	Overview of dementia – definition, stages, causes; fact or fiction exercise
3	Building your care team	How to ask for help; review of different providers (medical professionals, professional caregivers, community resources)
4	Building your toolbox	Provides various internal (repetition, association, etc.) and external (calendar, note taking, etc.) strategies for the organizational side of caregiving – based on cognitive rehabilitation strategies
5	Managing behavioral problems - Part 1	Summary of common neuropsychiatric symptoms; the Four R's; class exercise in utilizing the four R's
6	Managing behavioral problems - Part 2	ABC's of behavior change; creating a behavior log; review of behavioral interventions for common problematic behaviors; overview and strategies for safety concerns; overview of driving safety/evaluation/cessation
7	Maintaining your relationship	Discuss changing relationships in dementia; discuss tips for planning enjoyable activities
8	Caring for yourself	Discuss self-care strategies for caregivers including how to prioritize self-care, scheduling pleasant activities, the art of relaxation, engaging in mental health care, and available community/VA resources
9	Planning for the future	Discuss importance of planning early; review important medical and financial legal paperwork; discuss end of life topics including assisted living/skilled nursing facilities, funeral planning, and life after caregiving
10	Wrap up and feedback	Open format; CGs encouraged to reflect on experiences in the course and provide feedback to the leader

All sessions include review of the previous session content, discussion points, summary, and homework.

in measurement models as a single measure of ADL ability. We also collected information about basic demographics, the caregiver's relationship to the care recipient, care recipient diagnosis, living arrangements (living with the person with dementia or not), and length of time caregiving. Virtual pre-intervention baselines also provided an opportunity to introduce caregivers to the VVC platform and provide technological assistance if needed prior to the start of the intervention.

After the pre-intervention baselines were completed, all caregivers were mailed a physical intervention manual. As the intervention progressed, we recognized the need to send printed instructions for using VVC and a list of VA and community caregiver resources which were obtained from a VA website (sent to participants in 4 of 5 courses).

After each ten-week intervention was completed, a program member reached out to caregivers to schedule a virtual post-intervention follow-up, which included re-administration of the PCS and CSES-8. A satisfaction questionnaire was developed to assess caregiver experience. Caregivers rated the following on a scale from 1-100: (1) Was the time frame of the intervention (60 minutes per week, for 10 weeks) appropriate?; (2) Would you recommend this intervention to a fellow caregiver?; and (3) Overall, how satisfied were you with this intervention? Caregivers were also asked whether they felt that their expectations for the intervention had been met. Any additional caregiver comments were recorded when applicable.

Questionnaires completed at the beginning and end of the intervention were not administered by the clinician, so as not to bias patient responses. Questionnaires were shared on the screen for the majority of participants. For a small minority of caregivers that had difficulty logging on to the initial visit, questionnaires were read aloud by the interviewer. All survey data were entered into a secure computer database. Descriptive statistics were used to obtain information regarding sample demographics. Considering the small sample size and focus on feasibility and acceptability, Cohen's *d* effect sizes were calculated for all relevant findings.

RESULTS

Participant flow

A total of 65 interested caregivers were referred providers. Fifty of these 65 caregivers were successfully contacted. Of these fifty, two were deemed ineligible as they were not equipped for telehealth; one of these caregivers requested to remain on the waitlist in case an in-person option became available, or a regular weekly telehealth connection could be facilitated through their local VA community-based outpatient clinic. Sixteen caregivers indicated that they were no longer interested in participating and declined to enroll. Reasons for declining to enroll included scheduling conflicts (n = 3), preference for an in-person course (n = 1), preference for a general caregiver support group (n = 2; in these cases, caregivers were referred to a VA general caregiver support group), and doubts about the relevance of intervention content as the care-recipient was already in an advanced stage of dementia (e.g., Memory Care or hospice; n = 3) or had only recently begun to show very mild memory problems (n = 1). The remaining six caregivers did not provide a reason for declining to enroll.

A total of 32 caregivers completed the pre-intervention baselines and were officially enrolled. Three caregivers dropped out after attending 1-3 sessions. Of these individuals, two were unable to be contacted and one indicated that they realized a weekly commitment would be too cumbersome. Twenty-nine caregivers were regular attendees (i.e., attended > 4 sessions). Six of these 29 were lost to follow-up (i.e., did not return contact attempts) and did not complete post-intervention follow-up. The remaining 23 caregivers completed post-intervention follow-up. One caregiver's data was excluded from analysis as they only joined by audio (telephone). In sum, a total of 22 caregivers completed all pre- and post-intervention sessions (Fig. 1).

Participant characteristics

Of the 22 caregivers completing all pre- and post-sessions, 77% were female (n = 17). Participating caregivers lived in one of seven different states, including New Hampshire (n = 8), Massachusetts (n = 8), Vermont (n = 2), Maine (n = 1), Connecticut (n = 1), South Carolina (n = 1), and New Mexico (n = 1). Caregivers included spouses/significant others (n = 13), former spouses (n = 1), siblings (n = 2), and adult children (n = 6). Caregivers ranged in age from 40-77 (age M = 66; SD = 9.93). Diagnoses of care recipients included unspecified dementia/no specific dementia diagnosis given (n = 8), vascular dementia (n = 6), Alzheimer's disease (n = 6), mixed dementia (n = 1), and atypical AD (n = 1). Caregiver ratings showed that over half of care recipients (n = 16) were above the cutoff for significant functional impairment as defined by the OARS IADL questionnaire criteria (i.e., total score > 18; M = 19.13, SD = 5.74, range = 7-28). Total session attendance was high (M = 8.45; SD = 1.76; range = 5-10). Length of time since diagnosis ranged from very recently (i.e., a few weeks) to 17 years, with two caregivers noting that they were unsure if they ever officially received a diagnosis. Overall, most caregivers estimated that the person with dementia was diagnosed within the last three years. Likewise, many caregivers had difficulty providing an estimate of exactly when they began to care for the person with dementia; responses ranged from a few months to 17 years, with most caregivers estimating they had been in their caregiving role for a few years.

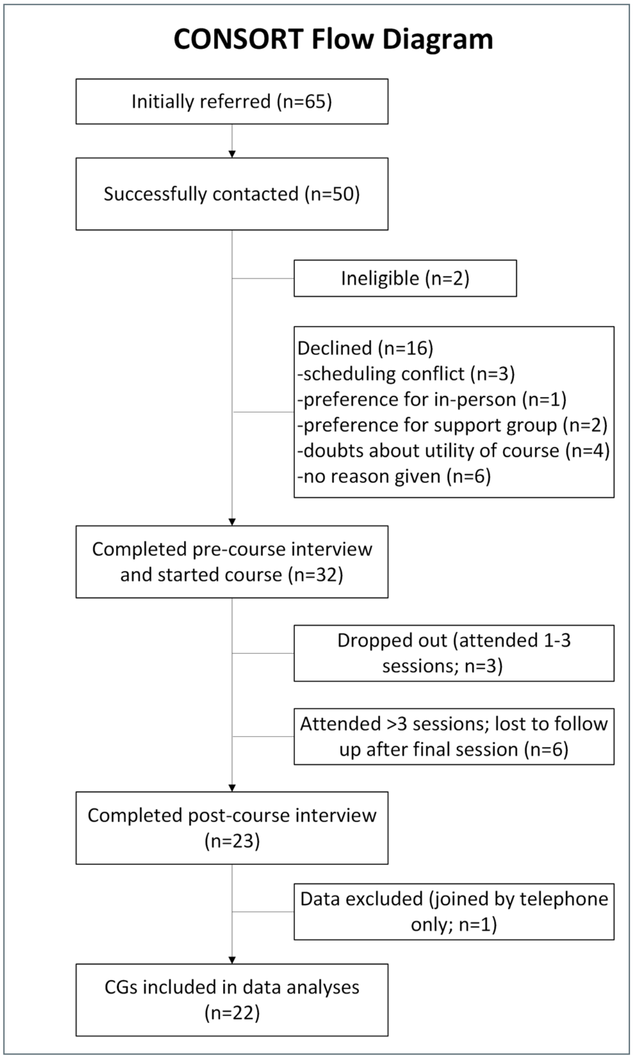

Figure 1. CONSORT flow of the progress through the phases of a single group pre- and post-intervention pilot.

Pre- and post-course effects

Scores on pre- and post-intervention measures demonstrated increases in role preparedness and self-efficacy (Figs. 2-3). Analyses showed a medium effect of the intervention on role preparedness ($d = 0.74$) and a large effect on self-efficacy ($d = 0.94$).

Caregivers' response to the intervention was predominantly positive. When asked to rate their overall satisfaction with the intervention on a scale from 1-100, 86% of caregivers rated their satisfaction as 80 or higher. Eighty six percent of caregivers found the technology easy to navigate. Furthermore, 91% of caregivers thought that the time frame of the intervention was appropriate, although some specified that they would have been equally satisfied if the intervention had lasted a few additional weeks. When asked how likely they were to

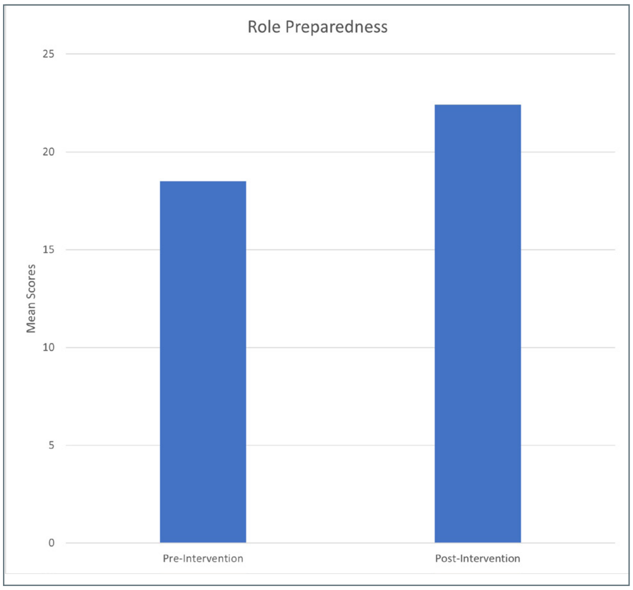

Figure 2. Pre- and post-intervention caregiver role preparedness scores.

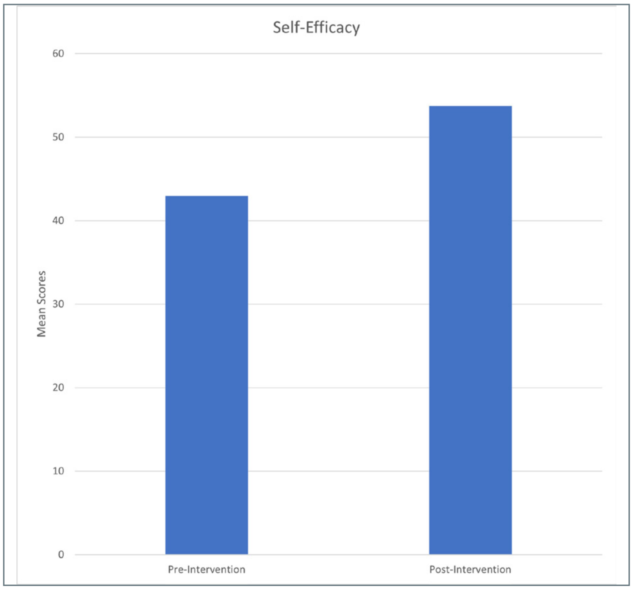

Figure 3. Pre- and post-intervention caregiver self-efficacy scores.

recommend the intervention to a fellow caregiver on a scale from 1-100, 77% of caregivers responded with 100. At intervention completion, 77% of caregivers felt that their intervention expectations had been fully met.

Intervention modifications

The first cohort of intervention participants had some trouble navigating the virtual platform and we decided to include a VVC User Guide that was mailed out with the intervention manual for all future cohorts. We also added a Telehealth Etiquette section to the first module in the manual (for example, asking participants to use the raise hand feature and make sure they are muted or have no background noise). We also added a brief (three minutes or less) mindfulness or deep breathing exercise at the beginning of each session. The instructor chose a different YouTube video each week and played the audio for the class through the VVC platform. We also moved the discussion portion of each session to the end, after all content had been covered. Initially, time for focused discussion was interspersed throughout each session, but we found that it was sometimes difficult to cut off discussion and finish all the material.

After the second cohort completed the intervention, we included a printed copy of the Services and Supports for Veterans and Caregivers document (a PDF available on the VA Caregiver Support Program website) along with the VVC User Guide and Manual. We also added information in the manual to reflect the recent FDA approval of disease-modifying medications for AD.

DISCUSSION

The purpose of the present pilot study was to evaluate feasibility, acceptability, and benefits of the Dementia Caregiver Toolbox. These pilot results suggest strong feasibility and acceptability. Participants attended most sessions (with a mean of 8 out of 10 sessions attended) with very low dropout (90% retention). Satisfaction ratings were high, and caregivers reported benefitting from the intervention. Preliminary exploration of key outcomes revealed boosts to role preparedness and self-efficacy.

Dementia caregivers are said to have a “caregiver career” which is comprised of many stages, beginning sometime after diagnosis and ending with the passing of the person diagnosed with dementia [32]. A recent study found that dementia caregivers in their sample spent at least 6 hours a week providing care, with over 22% of their sample reporting that caregiving was a 24/7 job [33]. The caregiver career includes numerous tasks such as helping with activities of daily living (i.e., medication management, grocery shopping, bill pay), providing emotional support, coordinating care with other persons, and finding and using support services, to name only a few [34]. Furthermore, these responsibilities change and shift over time as the disease progresses [35]. Despite the demanding and dynamic complexities of the caregiver career, there is typically little to no training provided following diagnosis. Imagine embarking on any other career path with no training. The Dementia Caregiver Toolbox was designed to provide caregivers with foundational knowledge about dementia diagnosis and progression, the caregiving role, common challenges, tips for managing caregiving demands and challenging situations, and available national and local resources. We chose to offer the intervention via synchronous telehealth to reduce barriers to access. We were primarily interested in demonstrating feasibility and acceptability at this early intervention development stage.

Over the course of approximately 10 months, 65 caregivers expressed interest in the intervention and 50 were successfully contacted. The majority of interested caregivers (32) that were able to be reached decided to enroll in the intervention and 29 of these caregivers were regular attendees (> 4 sessions minimum, with most attending 8 sessions on average). Though the intervention was based out of Massachusetts, we had caregivers attend from five New England states and, by word of mouth, had two other caregivers join from further away (South Carolina and New Mexico). Taken together, our findings support the use of synchronous telehealth for dementia caregiver interventions. With that said, during the intervention, some caregivers expressed frustration about background noise when others did not mute themselves. As a result of this feedback, we added a Telehealth Etiquette section to the first session that included instruction on the raise hand feature and muting and unmuting sound. Our experience suggests that video telehealth interventions may be improved by providing a specific orientation to the milieu.

Though most caregivers that expressed interest in the intervention were able to join via video and reported that the technology was easy to navigate, it is notable that two caregivers that expressed a desire to enroll in the intervention were not able to join because they were not equipped for telehealth. In addition, one other caregiver that joined the intervention was never able to successfully connect via video though she attended every session (10 of 10). Digital health literacy is one barrier to engaging in telehealth [35-37]. Almost 1 in 3 dementia caregivers are themselves over age 65 [34] and older adults may be particularly vulnerable to disparities in digital health literacy [37,38]. Research suggests that digital health literacy interventions, aimed at improving digital health literacy, can be an effective way to increase older adult knowledge and self-efficacy, but perhaps not actual skill [39]. Access to direct support during telehealth interventions may be needed to improve actual ability to participate in interventions. In addition, reliable access to internet still remains an obstacle for many and more work is needed to reduce digital inequity so dementia caregivers can access these types of interventions [40-42].

Of the 22 caregivers that completed data collection, the majority felt that the intervention met their initial goals and expectations and that the time frame of the intervention was appropriate. Most gave high satisfaction ratings of 90 or higher on a scale of 1 to 100 and were 100% likely to refer the intervention to a fellow caregiver. Though not powered for statistical significance at this pilot stage, we found a medium intervention effect on role preparedness and a large intervention effect on self-efficacy. It is interesting to note that the intervention was initially conceptualized as an offering for caregivers that had recently received a new diagnosis of dementia. However, enrolled caregivers reported a large range from time since initial diagnosis, from a few weeks up to 17 years. A scoping review of 20 studies focused on the information needs of dementia caregivers found that most caregivers described a need for general information about dementia, how to provide care for the diagnosed individual, and where and how to find and use services [43]. Caregivers that are more knowledgeable about dementia and caregiving have better outcomes compared to those with less knowledge [26,44]. Interventions like the Caregiver Dementia Toolbox can serve as a helpful first step for providing a broad introductory roadmap for dementia caregivers, including an overview of additional available resources.

The largest limitation of this study is our failure to collect data related to cultural identity. Studies have found racial and ethnic differences in the perceptions of dementia and aging in general that may alter the delivery and/or impact of the current intervention. Specifically, Hispanic, Black, and Asian cultures may be more likely to view memory problems in older age as normal, while White individuals may be more likely to view changes as problematic [45-47], which may be due to low exposure to information about dementia for lower SES/marginalized groups [45,47-49]. Interventions like the one described need to consider the potential impact of differing illness perceptions across racial and ethnic groups. Furthermore, future interventions may need to consider cultural differences in the caregiver journey, with specific consideration to preferences for keeping care within the home, privacy around medical conditions, limited discussions about advanced care planning, the role of religion in understanding AD and coping with caregiving, use of holistic/traditional treatment measures, and barriers to accessing community resources [46,50,51]. Intervention delivery also needs to be most fitting for the targeted group and should include consideration of the location of delivery, preferred language, and literacy requirements [52]. Specific to the synchronous telehealth format of the Dementia Caregiver Toolbox, the use of technology as a dissemination tool has been shown to have mixed effects across racial/ethnic groups, with access to stable internet and technology literacy named as the largest barriers [52,53], suggesting that synchronous telehealth would not reach as many in need.

In the present study, participants were predominantly female. Women, estimated to represent approximately two-thirds of dementia caregivers [34], may continue to face cultural expectations to take on more caregiver responsibilities compared to male caregivers [54-56]. Female caregivers are at a greater risk for caregiver distress and burnout compared to male caregivers and may have different caregiving experiences than their male counterparts [57,58]. The Dementia Caregiver Toolbox intervention may have different outcomes for female versus male caregivers that we were unable to detect in our pilot, given the small sample size. This would be an area of future investigation.

Several diagnoses for the care recipients were reported in the current study. The Dementia Caregiver Toolbox intervention was designed to provide broad dementia education and skills training, with the goal of providing a roadmap of the dementia caregiving experience that is applicable across a wide range of neurodegenerative etiologies. However, caregiver experiences and needs may differ by care recipient diagnosis. For example, caregivers of care recipients diagnosed with frontotemporal dementia differ from those diagnosed with other dementias in several ways, including, for example, greater overall experienced burden [59,60]. These experiential differences may change intervention responsiveness. In addition to the varied types of dementia reported, length of time since diagnosis varied widely, from a few weeks to many years. Given the small sample size in the current study, we were unable to investigate differences in intervention responsiveness by certain participant and patient characteristics. Gaining a better understanding of the impact of care recipient diagnosis and length of time spent providing care on intervention outcomes will be considered in a larger outcome study with a more robust sample size.

This pilot study focused on the feasibility and acceptability of a dementia caregiver telehealth intervention designed to provide a broad roadmap of the caregiving career to boost role preparedness and self-efficacy. As described, we were able to successfully recruit and retain dementia caregivers and received favorable feedback in response to the intervention, demonstrating efficient implementation. Given these preliminary findings, a larger outcome study is now warranted to determine the efficacy of the intervention in improving caregiver outcomes.

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Conflict of interest statement

The authors declare no conflict of interest.

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Author contributions

MKO’C: substantial contributions to the conception of the work, drafting and revising the work critically for important intellectual content, final approval of the version to be published, agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity are appropriately investigated and resolved; ZB: substantial contributions to the design of the work and the acquisition of data, revising the work critically for important intellectual content; RDM: substantial contributions to the design of the work and the acquisition of data; MS: substantial contributions to drafting and revising the work critically for important intellectual content; JH: substantial contributions to the acquisition of data.

Ethical considerations

The present study was completed in accordance with the Helsinki Declaration and reviewed by the Institutional Review Board of the VA Bedford Healthcare System and determined to be a quality assurance project. After the submission was reviewed in its entirety, the project was approved by the Institutional Review Board as a quality assurance project.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author (MKO).

Study design

A single arm pre-post pilot study was conducted including both pre- and post- group intervention measures and the ten-week group intervention described below. Each group was led by a doctoral level neuropsychologist with dementia and dementia caregiver experience. All intervention sessions were led by the same clinician.

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