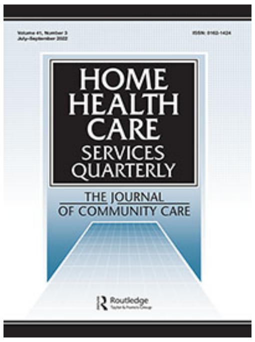

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Behavioral activation for live-in migrant home care workers and care recipients in Israel: a pilot study

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ABSTRACT

In a growing global trend, individuals are migrating to other countries to live with and care for older adults with dementia. Although this trend addresses the geriatric workforce shortage, workers and older adults often experience distress. In a pilot study in Israel, six migrant care workers participated in a six-week group intervention in which they learned to increase valued, enjoyable activities for themselves and the older adult with whom they lived (behavioral activation). After the intervention, workers reported that they increased activities for themselves and the older adult and were satisfied, and quality of life and sense of achievement showed medium and large effect sizes, respectively. Participants suggested adapting the intervention to an online format for greater access. Although findings are tentative, the study points to promising strategies for migrant home care workers: focusing on the worker and older adult and offering online interventions.

KEYWORDS

Behavior; mental health therapy; caregiving; dementia; behavioral activation; migrant workers

Worldwide, we are facing an unprecedented demographic shift, in which older adults outnumber children for the first time in history, with the number of adults 65 and older surpassing 727 million persons in 2020 and anticipated to double to over 1.5 billion in 2050 (United Nations Department of Economic and Social Affairs Population Division, 2020). The number of older adults is rising in all regions of the world and will increase from 9% of the population in 2020 to 16% in 2050 (UN, 2020). There are not expected to be enough family members and professionals to care for them, with an estimated need for 13.5 million new workers by 2040 (Global Coalition on Aging and Home Instead, 2021).

To care for older adults with dementia and other health limitations, a growing number of countries are turning to migrant workers to care for older adults (Chau, 2020), such as Canada, Germany, Israel, Italy, Singapore,

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This article has been corrected with minor changes. These changes do not impact the academic content of the article.

Spain, the United Kingdom, and the United States (Cohen-Mansfield, Garms-Homolová, & Bentwich, 2013; Fisher, 2021; Salami, Duggleby, & Rajani, 2017). There are an estimated 11.5 million international migrant domestic workers globally, approximately 73% of whom are female; migrant workers comprise over 60% of home-based caregivers in Israel, Italy, Greece, and Spain (King-Dejardin, 2019). In 2018, Israel employed approximately 55,000 migrant home care workers, up from 40,000 in 2013, and now representing 60% of all migrant workers to Israel (Raijman, 2020). As permitted by Israel's Long-Term Care Insurance Act from 1988, they provide round-the-clock care to older adults, living with an older adult or a couple, providing services such as meal preparation, bathing, grooming, shopping, and cleaning (Raijman, 2020). The worker is supposed to receive one day off each week, according to Israel's federal regulations (Shamir, 2013).

This arrangement benefits migrant workers, older adults, and their families, while also presenting challenges. Migrant home care workers receive income that benefits them as well as their families, and older adults and family members receive caregiving (Shinan-Altman, Riabzev, & Ayalon, 2018). In one study in Israel, most migrant home care workers and care recipients reported positive relationships with each other (i.e., good quality, feeling close, understanding each other, getting along well), and their ratings of the relationship were positively correlated (Teshuva, Cohen-Mansfield, Iecovich, & Golander, 2019) In spite of these positive aspects, other Israeli studies indicate that it is common for the worker to experience depressive symptoms and loneliness (Ayalon, 2012; Ayalon & Shiovitz-Ezra, 2010). A disturbing number of workers report suicidal thoughts or behavior since arriving in Israel: 24% had felt life was not worth living, 15% had seriously considered suicide or made a plan, and 5% had made at least one attempt (Ayalon, 2012). Likewise, the older person also often shows symptoms of depression and other problematic behavior, such as memory problems or agitation (Ayalon, 2010b). Moreover, the worker's and older person's moods impact each other (Ayalon, 2009b, 2010a, 2012; Ayalon & Shiovitz-Ezra, 2010; Ayalon, Shiovitz-Ezra, & Palgi, 2012), and the quality of their relationship predicts burnout, burden, and job satisfaction for workers (Cohen-Mansfield & Golander, 2021).

Studies of migrant home care workers in other countries also have revealed benefits and challenges. In two reviews of research across multiple countries (including Israel), a complex picture emerged regarding migrant home care workers' experiences and interactions with care recipients and family members (Fisher, 2021; Salami et al., 2017). In a review across seven countries, workers commonly were viewed by care recipients and family members as part of the family, with all its complications, such as asking the care worker to use familial terms (e.g., mother or father), giving gifts to the care worker, and expecting the care worker to provide emotional support and expand their duties, raising the potential for abuse and exploitation (Salami et al., 2017). In a review comparing Israel and Italy, both countries were found to use migrant home care workers extensively and to have similar challenges, including demands of being expected to provide round-the-clock care (24 hours/day) and undervaluing of care work, as evidenced by insufficient training and policies to protect workers' rights (Fisher, 2021). In a third recent review of 127 studies of migrant workers (including but not limited to domestic and home care workers), studies across numerous countries indicate high rates of depressive and anxiety symptoms. Risk factors for depressive and anxiety symptoms included stress associated with acculturation, discrimination, exploitation at work, being female (who are more often domestic or home care workers), and social isolation. One protective factor was identified – retaining practices from one's home culture, and a small number of intervention studies conducted suggest that improving healthy behaviors and coping was promising for improving well-being (Mucci et al., 2020).

Given the depressive symptoms, distress, and challenges commonly experienced by migrant home care workers and their care recipients, there is a need to identify easy-to-use interventions that might simultaneously address the needs of migrant home care workers and their care recipients. Behavioral activation is a behavioral intervention that might be able to improve distress and quality of life for both the migrant worker and the older adult, based on research demonstrating its benefits for individuals from a variety of cultural backgrounds and ages (Dimidjian, Barrera, Martell, Munoz, & Lewinsohn, 2011), including with older adults with dementia (Teri, Huda, Gibbons, Young, & van Leynseele, 2005; Teri, Logsdon, Uomoto, & McCurry, 1997).

Behavioral activation involves training an individual or group to plan and engage more frequently in activities that they find personally valuable, rewarding, and/or enjoyable, and it can be delivered in individual or group formats. It is solidly grounded in psychological theory and research demonstrating that, as individuals are better able to create more valued, meaningful, enjoyable activities in their lives, they experience better moods, relationships, work productivity, and health (Dimidjian et al., 2011; Ekers et al., 2014; Lejuez, Hopko, Acierno, Daughters, & Pagoto, 2011). Behavioral activation is effective for diverse individuals and groups (Dimidjian et al., 2011), likely because they determine values, goals, and activities for themselves in a flexible, personalized manner. Family caregivers and staff in assisted living facilities have been able to learn and implement behavioral activation for care recipients with dementia, thereby reducing depressive symptoms in the person with dementia (Teri et al., 2005, 1997). Although no studies of behavioral activation have involved migrant home care workers, previous research has found that they intuitively implement behavioral strategies with care recipients (Ayalon, 2009a), such as approaching an agitated care recipient with compassion and going along with rather than correcting the care recipient. Other benefits of behavioral activation are its feasibility for non-mental health professionals to learn and to be disseminated via online formats (Dimidjian et al., 2011).

The purpose of the current study was to develop and pilot test a behavioral activation intervention with live-in migrant home care workers in Israel, to evaluate feasibility and identify modifications that might be needed for the intervention protocol or study procedures to design a larger hypothesis-testing study. In the current study, the goal of the intervention was to train them to increase valued activities for themselves and their care recipients. No prior studies were identified that evaluated behavioral activation with migrant home care workers or that attempted to intervene with both the worker and care recipient; thus, two primary innovations of this intervention are the focus on migrant workers (instead of family caregivers or institutional staff) and the dyadic focus of the intervention (i.e., training workers to use the same strategies for themselves and their care recipients). Because older care recipients all suffered from severe dementia, the behavioral activation intervention targeted them via the migrant home care workers. Worker and care recipient outcomes were also assessed, although the study was not large enough for formal hypothesis-testing.

Methods

Sampling and recruitment

Participants were recruited from one dementia service organization in the center of Israel that provided housing and day services for older adults with dementia and support services to families. Inclusion criteria included: a) migrant home care worker at the collaborating dementia service organization; and b) able to speak, read, and write in English (all workers at this organization were from the Philippines, where English is an official language). A social worker with the organization invited all 14 migrant home care workers who lived with older adults that received services at the organization, regardless of their level of depressive symptoms or distress. Eleven migrant home care workers attended an informational session with study personnel, at the end of which they were invited to provide written informed consent and complete the pretest survey. Ten consented, and nine completed the pretest survey. One person withdrew before completing the pretest survey due to difficulty reading and speaking English.

Behavioral activation intervention

The intervention was conducted in a group setting, with two facilitators (one Ph.D. psychologist, one Ph.D. social worker). Participants met for six weeks, weekly, for 90 minutes each session. The protocol and forms were based on behavioral activation treatment for depression (Lejuez et al., 2011), which involves helping a person to plan and increase valued and enjoyable activities as a method for reducing depressive symptoms. This protocol was selected because of its emphasis on identifying one's life values across five life areas (relationships, education/career, recreation/interests, mind/body/spirituality, and daily responsibilities) and basing activities on life values. The manual defines values as "an ideal, quality, or strong belief in a certain way of living" and "something that is important to you, in your heart, about your life." Examples of values include "how you treat other people, how you relate to family and friends, work, or how you take care of yourself" (Lejuez et al., 2011). The study team believed that a focus on life values would be relevant and beneficial for all participants and their care recipients, even if they were not distressed. Activities are then selected by participants based on their values, defined as "things you can do to actually live according to the values" with the qualities of being valued or enjoyable, observable, measurable, and realistic (Lejuez et al., 2011). An example includes the activity of writing a letter to one's child, based on the value of being a loving parent, in the life area of relationships.

An outline of the six-week group intervention is provided in Table 1. For each topic, the group discussed how to apply the concepts and activities for their own lives and for their care recipients. Participants were asked to complete forms after each session, with one set of forms for themselves and one set of forms for their perceptions of their care recipients. The forms asked them to identify values, plan activities, and keep track of activities completed. Each follow-up session began with a discussion of participants' experiences since the previous session. The intervention protocol is available upon request from the first author. The group leaders followed the intervention protocol but did not undergo independent fidelity assessment.

Measures

All questions and scales have been used with Israeli migrant home care workers in past research and/or have been validated in multiple cultures and languages. In the present study, all measures were used in English (all participants were from the Philippines, where English is one of the official languages).

Table 1. Overview of behavioral activation session topics.

Session 1	Defining and identifying values
Session 2	Identifying values
Session 3	Ranking and planning activities based on values
Session 4	Reviewing and planning activities
Session 5	Reviewing and planning activities
Session 6	Maintaining and adding activities after group's end

Demographic variables. Participants reported on demographic characteristics and their background as a home care worker (Table 2).

World Health Organization-5 (WHO-5). The WHO-5 was used to measure the worker's well-being (Heun, Bonsignore, Barkow, & Jessen, 2001). It contains five items rated for frequency on a six-point Likert scale (0 = "at no time" to 5 = "all of the time") for the past two weeks. Items are summed to create a range of 0–25, with higher scores indicating better well-being. For the completer sample, Cronbach's alphas for the current sample (N = 6) were low (0.35 [pretest], 0.57 [posttest]).

Table 2. Sample description at baseline (N = 6).

Variable	M (SD) or N (%)
Age, M (SD)	37.20 (5.93)
Gender: Female	3 (50)
Born in Phillippines	6 (100)
Years education: 14	3 (50)
15–16	2 (33.3)
Marital Status: Single	2 (33.3)
Married	3 (50)
Divorced	1 (16.7)
Number children: 0	1 (16.7)
1	2 (33)
2	2 (33)
3	1 (16.7)
Religion: Christian	6 (100)
Religion/spirituality: Important	3 (50)
Very important	3 (50)
Financial situation: Just enough	4 (66.7)
Comfortable	2 (33.3)
Years in Israel: 6–9	4 (66.7)
10+	2 (33.3)
Years home care worker: 1–5	1 (16.7)
6–9	4 (66.7)
10+	1 (16.7)
Level speaking Hebrew: Poor	1 (16.7)
Fair	2 (33.3)
Good	3 (50)
Have off 1+ day/week (yes)	4 (66.7)
During work days, have free time in home (yes)	6 (100)
During work days, have free time to leave (yes)	4 (66.7)
Hours sleep per night, M (SD)	7 (1.27)
Times wake up to care for older adult per night: 1	1 (16.7)
2	3 (50)
3+	2 (33.3)
Overall sleep quality: Fairly bad	1 (16.7)
Fairly good (dichotomize, other categories?)	5 (83.3)
Seen on a regular basis: No one	0
Older adult's partner	0
Older adult's family	5 (83.3)
Older adult's friends	2 (33.3)
Your own friends at organization	4 (66.7)
Your own friends outside	1 (16.7)
Your own family	0
Past month, felt need to take off (yes)	3 (50)
Past month, actually took off (yes)	3 (50)
Have had training to be home care worker (yes)	5 (83.3)

Note. Numbers represent N(%) unless otherwise specified. Missing: 1 age, 1 education.

Patient Health Questionnaire-9. (PHQ-9). The PHQ-9 is a validated screening tool for depressive symptoms (Kroenke, Spitzer, & Williams, 2001); it was used to assess the workers' depressive symptoms. It contains nine items rated on a four-point Likert scale (0 = "not at all" to 3 = "nearly every day") over the past two weeks. Ratings are summed, with a range of 0–27. Higher scores represent more depressive symptoms. Cronbach's alpha was low at pretest (0.57) but good at posttest (0.93).

Paykel suicidal ideation. The Paykel scale includes five questions about suicide ideation or previous attempts (Paykel, Myers, Lindenthal, & Tanner, 1974). At pretest, the time frame was since moving to Israel; at posttest, the time frame was since beginning the study. For the current study, a variable of any suicide ideation was analyzed ("yes" to 1 or more items; versus "no" to all items).

Maslach Burnout Inventory – Emotional Exhaustion, Depersonalization, Personal Achievement (MBI-E/D/A). The MBI was used to measure workers' sense of burden, with three subscales (Maslach, Jackson, & Leiter, 1996). Twenty-two items are rated on a seven-point Likert scale (0 = "never" to 6 = "every day"). Some items are reverse-scored, such that higher scores indicate greater burden, with ranges of 0–42 for MBI-E and MBI-D, and a range of 0–48 for MBI-A. Cronbach's alphas were borderline or acceptable for MBI-E (.62 [pretest], 87 [posttest]) and MBI-D (.82 [pretest], 93 [posttest]), but low for MBI-A (.47 [pretest], 45 [posttest]).

Quality of life – Alzheimer's Disease (QOL-AD). The QOL-AD is a 13-item tool in which a caregiver can rate perceived quality of life for another individual with AD (Logsdon, Gibbons, McCurry, & Teri, 2002). A fourteenth item was added for "people who work with him or her" (Edelman, Fulton, Kuhn, & Chang, 2005). Workers reported their perceptions of the quality of life for the older adult to whom they provided care. Items are rated on a four-point Likert scale (1 = poor to 4 = excellent), summed to create a range of 14–56, with higher scores representing better QOL. Cronbach alphas were acceptable at both pretest (.82) and posttest (.95).

Satisfaction. At pretest, one open-ended item inquired about what participants hoped to gain. At posttest, eight Likert items assessed scheduling of intervention sessions, overall quality, leaders' knowledge and skills, how leaders treat you, and how leaders communicate with you (very satisfied, satisfied, neither, dissatisfied, very dissatisfied). Six open-ended items asked about the workers' overall impressions, benefits, changes made because of program, how we could improve the program, whether they would recommend the program to others, and what else.

Procedures

The study utilized a pretest/posttest intervention design. During the informational session, study personnel reviewed the informed consent document and answered all questions. Attendees then signed two copies of the consent document (keeping one) and completed the paper-and-pencil pretest survey. Study personnel were present to answer questions. One week later, the intervention sessions began, which ran weekly for six weeks. Immediately after the last intervention session, the group leaders left, and participants completed the paper-and-pencil posttest survey with a different member of the study team. All meetings were held in meeting rooms at the dementia service organization. All documents and meetings were in English. All documents and procedures were approved by the ethics review committees of the University of South Florida and Bar-Ilan University.

Data analyses

All analyses were conducted using SPSS 24. Descriptive statistics were computed for all variables, and Cronbach's alpha were computed for all scale variables. The six participants who completed the intervention and post-intervention survey were compared to the three withdrawals on baseline demographic and scale variables, using t-tests and chi-square tests. Effect sizes were calculated for pretest and posttest outcome variables for the six participants (pre-post change score divided by the pretest standard deviation).

Results

Participation

Of the nine participants who completed the pretest survey, eight attended the first intervention session. One person withdrew before the first intervention session, due to difficulty leaving the care recipient. Two additional people stopped attending after the first intervention session. All three withdrawals were female. Six individuals completed the intervention, and all six completed the posttest survey. The three individuals who withdrew did not differ statistically from the six who completed any demographic variables at baseline. One difference was marginally significant, however; two of those who withdrew reported 12 years of education (1 missing), whereas five completers had 14 or more years of education (1 missing), χ^2 (3) = 7.0, p =.072. Participants who completed the study reported a greater sense of achievement (MBI-A), at baseline, than those who withdrew, *M(SD)* = 42.79 (3.20) versus 17.43 (9.16), t (7) = −6.42, $p <$ 001, There were no other statistically significant (or marginal) differences for scales at baseline, with comparable means for withdrawals and completers, respectively: WHO-5 (17.92 vs. 19.17), PHQ-9 (7.62 vs. 5.50), MBI-E (9.39 vs. 10.89), MBI-D (6.00 vs. 9.36), and the care recipient's QOL-AD (39.39 vs. 38.17). Descriptively, the three individuals who withdrew reported more suicidal thoughts or behavior at some point in time since coming to Israel: all three had wished they were dead (vs. 2 of 6 completers),

χ^2 (1) = 3.60, p =.058; two had thought of taking their life (1 missing; vs. 1/6 completer), χ^2 (1) = 3.73, p =.053; two had considered or planned to take their life (vs. 2/6 completers), χ^2 (1) = 0.90, p =.343; and two had attempted to take their life (vs. 1/6 completer), χ^2 (1) = 2.25, p =.134.

Of the six completers, five attended all six sessions and completed at least some between-session activities. One attended three sessions, due to illness of self or the care recipient; this participant also did not complete between-session activities.

Sample description

Please see Table 2. The number of males and females was balanced. All participants were born in the Philippines and identified as Christian. Half were married, and most had children. Average age was just under 37. All participants had been in Israel six or more years, and all but one had worked as a home care worker for six or more years. Similarly, all but one had worked for the current care recipient for five or more years. Most reported fairly good sleep quality, although all woke at least once to care for their care recipient each night. Financially, most reported just barely making ends meet.

Outcomes

As shown in Table 3, improvements were observed for WHO-5 and personal achievement, with a medium effect size for WHO-5 (.603), and a large effect size for personal achievement (.869). QOL-AD declined with a medium effect size (.735).

For all satisfaction ratings, all six participants were either “satisfied” or “very satisfied,” except for “how often meetings held” and “length of meetings held,” for which one participant was “neither” satisfied nor dissatisfied with each. Specific ratings for “very satisfied” or “satisfied” were, respectively: overall quality (4, 2), leaders’ knowledge and skills (5, 1), how leaders treat you (6, 0), how leaders

Table 3. Participant outcomes (N = 6).

	Pretest M (SD)	Posttest M (SD)	Effect size
World Health Organization-5	19.16 (2.22)	20.5 (1.64)	0.603
Patient Health Questionnaire-9	5.50 (2.88)	5.90 (3.91)	0.139
Paykel any suicide ideation	3	1	
Maslach: Emotional exhaustion	10.89 (5.76)	12.02 (8.75)	0.196
Maslach: Depersonalization	8.20 (8.01)	7.13 (5.78)	0.134
Maslach: Personal achievement	42.72 (3.13)	40.00 (5.40)	0.869
Quality of Life: Alzheimer Disease	38.17 (8.73)	31.75 (9.67)	0.735

Note. World Health Organization-5: range 0–25; Patient Health Questionnaire-9: range 0–27; Maslach emotional exhaustion: range 0–42; Maslach depersonalization: range 0–42; Maslach personal achievement: range 0–48; Quality of Life Alzheimer Disease: range 14–56. For all scales, a higher score indicates more of the construct. For suicide ideation, at pretest participants were asked about “since arriving in Israel;” at posttest they were asked about “in the last six weeks.”

communicate (4, 2), how often meetings held (3, 2), length of each meeting (2, 2; 1 missing), time of day meetings held (2, 4), and day of week meeting held (2, 4). In open-ended questions (Table 4), all participants had overall impressions that were positive, and all indicated they would recommend the group to others. Four participants reported benefits (two did not write in benefits), such as setting new daily goals and activities for themselves and the care recipient.

Consistent with these written satisfaction comments, participants reported during the group sessions about engaging in valuable activities and helping their care recipient engage in activities. Examples of activities for themselves included: contacting family members more often, physical activity and exercise, social

Table 4. Satisfaction: Open-ended questions (N = 6).

What hope to gain (pretest; 4/6 answered)
Hoping to learn a new things and charged my mind. Maybe I could contribute my experience of being a well care giver
I am open to suggestions
I'm expecting with this study that will help us, especially my personality to be improved from what I am now. And also I want to learn how to deal or improved my caregiving work to adult/old one.
Yes, hoping to have more knowledge about taking care of older people
Overall impressions (6/6 answered)
Calm, relax and easy group meetings
GREAT impressions
I am relax and happy
I am very great/satisfied
It gave us a lot of positive ideas how to make things even better
it was unexpected new journey. well delivered
How help you (6/6 answered)
Helps how to value myself to metupal and to other people
It helps me a lot especially in dealing with the metupal. It improves me on how to handle things with my family and myself and for the metupal as well.
it was okay I wish they were more active, pity . . .
It's help me to develope my personality in my care giving skills
Motivates me to work and prove more for positive results and keep learning
The group meetings that we did helps me a lot through enhancing my personality and how we deal with every situation as foreign worker and also helps in my caregiving skills, how to take care more my metupal effectively.
How could we make group meetings better? (4/6 answered)
communication, online, back-ups, follow up reports
I think it should be more hours and if possible there is also a VTR/video to show more with regards to this disease.
need more little time
To share more ideas by listening on every situation
What changes have you made (4/6 answered)
Changes like doing some goals everyday
I got better ideas on how will I make my days better
Keep moving, it opens my mind on what reality might brings, stay focus
Now I set an activity with my goal.
Would you recommend group? Why or why not? (5/6 answered)
Indeed, because its a life changing process
Yes
Yes, because it helps a lot to individual one and to the metupal, very effective!
Yes, because it helps us to feel how importance we are for giving their time and ideas
Yes, because it's very helpful to myself. (my mind, body, spirit) especially we are 24/7 in our work.
What else? (3/6 answered)
It's very nice/helpful.
THANK YOU!
That I'm glad that I'd been a part of it, and I've learned a lot from this meetings

outings, growing potted plants, and saving money. Examples of activities with care recipients included: physical activity, music, dancing, inviting family members to visit, and styling hair and make-up. Workers reported values related to connecting with and supporting their families in the Philippines, taking good care of their care recipients, and less often, caring for themselves. They had less information about their care recipient's life values, but they were aware that care recipients' families were important to them and were aware of enjoyable activities in which their care recipients had previously engaged (e.g., dancing, music, gardening). In one poignant example described by a migrant home care worker during one of the group sessions, the worker started dancing with the care recipient (who was wheelchair-bound, did not communicate verbally, and rarely displayed facial expressions) on a regular basis, playing music the care recipient had previously enjoyed. The worker reported that the care recipient would smile in response. When the care recipient's spouse visited, the spouse commented, "You don't even know I'm here, do you?" The worker responded by starting the music and guiding the spouse to hold hands and dance with the care recipient. The care recipient smiled at the spouse for the first time in a long period. After sharing this story, the next week, two other workers stated they also had engaged in new activities with their care recipient, based on the first worker's story. One worker had invited the care recipient's family (children and grandchildren) to visit for a holiday. The second worker began doing physical exercise with the care recipient.

In the open-ended comments (Table 4), four participants offered suggestions, all of which involved extending the group in some way. In the last group meeting, one participant suggested forming an online group, so they could interact with each other more and involve other home care workers who might not want or be able to participate in person. All other participants agreed that an online forum was a good idea.

Discussion

In this pilot study of a behavioral activation intervention for migrant home care workers and care recipients with whom they lived, the intervention was feasible to deliver, and workers expressed satisfaction and benefits for themselves and their care recipients. In the assessment of outcomes, workers' quality of life and sense of personal achievement showed medium and large effect sizes, respectively. Other outcomes for the workers were unchanged. Workers suggested that the intervention should be longer or extended, such as by an online forum so they could continue interacting with each other and involving other workers. The lack of change in other outcomes and the unexpected decline in care recipients' quality of life ratings could be due to sampling and measurement issues. The small sample size and pre-post design are obvious weaknesses, precluding any firm conclusions from these findings. Regarding sample selection, the workers in the current pilot study were not particularly depressed or burdened; the three participants who withdrew had a lower sense of achievement than those who remained. Regarding measurement, the internal consistency of the scales also was low for some scales and time points. Although these scales performed adequately in previous studies with Filipino home care workers in Israel (e.g., Ayalon, 2012), they may not have been reliable and valid for the current sample. Also, some of the outcomes measured may not have been the most relevant outcomes to measure. It may be more relevant to gather detailed information about behavioral changes for both workers and care recipients (Manos, Kanter, & Busch, 2010), and to conduct dyadic analyses of the interrelationships among their changes. A last measurement issue involves time; perhaps changes would be observed over longer periods of time. The lack of in-depth qualitative data from the migrant home care workers is also a weakness; qualitative information likely would have provided greater insights than the available quantitative data regarding the benefits participants experienced as well as suggestions to improve the intervention's impact for workers and care recipients.

One feasibility consideration is engaging workers to participate in a behavioral intervention. Although the intervention was feasible to deliver with most of the workers who expressed initial interest, different strategies are likely needed to reach workers who are more distressed, burdened, or do not like in-person group interventions. There was some indication that the three women who withdrew may have been more burdened; they reported more suicidal ideation and behavior at some point since coming to Israel, and they felt they were achieving less as caregivers. Nonetheless their other scale scores were comparable to those who completed the study. Our participants suggested an online intervention to engage those who had withdrawn from our project or friends that worked in other locations; they also noted an online intervention would allow them to interact more with each other.

Based on participants' recommendations, we intend to investigate online delivery in the future. One possibility is a purely online intervention that could be completed at the worker's own pace, involving brief didactic videos about behavioral activation by facilitators, readings and forms to be completed online, and ability for workers to chat with each other. Other possibilities include a combination of in-person (group or individual) and online activities. An online intervention could be combined with other online resources for dementia caregivers, also suggested by our participants. An online intervention also has valuable data collection and monitoring benefits; participants and facilitators could monitor values and activities completed. Finally, an online intervention has other obvious benefits – ease of dissemination and implementation that crosses geographical boundaries. It would be important to include both quantitative and qualitative data collection during the formative phase of adapting the intervention for online delivery.

While this study was conducted prior to the COVID-19 pandemic, several factors indicate that online interventions will have even greater relevance during and after the pandemic. First, both migrant home care workers and older adults have been experiencing heightened distress during the pandemic. In one study of Israeli migrant home care workers during the pandemic, 39% reported some distress, with 40% unsure they would be able to care for themselves and their care recipients during the pandemic (Attal, Lurie, & Neumark, 2020). In Europe, the pandemic led to extended stays for migrant home care workers and reduced mobility to travel home in some locations (Leiblfinger et al., 2020), but being forced to leave their care recipients and work in others (Kuhlmann, Falkenbach, Klasa, Pavolini, & Ungureanu, 2020). Older adults have experienced increased isolation, loneliness (Fingerman et al., 2021; Lebrasseur et al., 2021), and distress (Koma et al., 2020; Vahia, Jeste, & Reynolds, 2020) compared to before the pandemic. To meet increased needs, there has been a dramatic uptake of physical and behavioral health interventions delivered by telehealth during the pandemic (Baum, Kaboli, & Schwartz, 2021; Mansour, Tajanlangit, Heyward, Mojtabai, & Alexander, 2021). Thankfully, behavioral activation can be successfully delivered via telehealth, as demonstrated in a recent systematic review (Huguet et al., 2018); studies such as these could be models for delivering the intervention studied in this manuscript in an online format.

In summary, in a small pilot study, Filipino migrant home care workers in Israel were satisfied with a behavioral intervention designed to increase valued activities for themselves and their care recipients. They reported benefits for themselves and their care recipients, although only two quantitative outcomes showed meaningful improvements based on medium to large effect sizes (workers' quality of life and achievement, respectively). The conclusions are tentative, of course, given the pilot scope of the study and other limitations, notably the broad selection criteria and measurement issues with the scales used. This in-person group intervention may not be optimal for workers who are not able or interested in participating an in-person group intervention. Future studies could build upon this concept of focusing on the worker and care recipient, while addressing weaknesses of the current study (e.g., larger sample size, more diverse sample, measuring other outcomes and/or selecting for distressed participants) and incorporating recommendations from our participants, including transitioning to online delivery and addressing other issues (e.g., basic dementia caregiving education, workers' rights), which have also been recommended by other researchers (e.g., Mucci et al., 2020; Ryvicker, 2018). Based on a detailed ethnographic study of migrant home care workers from the Philippines in Israel, they used social media regularly for sharing information about caregiving, seeking and providing emotional support, engaging with Israeli culture, and connecting regarding Filipino culture (Golan & Babis, 2019a, 2019b). Online resources and communication platforms could be developed to deliver supportive services such as this behavioral intervention, deliver other training resources, and better integrate migrant home care workers with supervisors and other healthcare providers (Ryvicker, 2018). Online intervention resources also would have the potential for rapid dissemination across geographical regions, as long as resources are available in multiple languages and culturally sensitive. Very little research was identified regarding interventions to support mental health for migrant workers (Mucci et al., 2020), so conducting larger-scale research on this and other interventions could have widespread impacts on this growing population of migrant home care workers, their care recipients, and the families of workers and care recipients.

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Data availability statement

The data are available from the first author. IRB review would need to be completed before data are allowed to be shared in a de-identified format.

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