Pilot of a Communication Program for Dementia Caregivers Using Improvisational Techniques

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Abstract
Background/Objectives: This paper is a brief report on a novel pilot program called Improv to Improve for family dementia caregivers to build resilience, communication skills, and improve social caregiving situations in order to reduce caregiver burden and low mood. Methods: We conducted a 6-week improv training for family caregivers including pre- and post-program evaluation of caregiver mood utilizing the Beck Depression Inventory and the Zarit Burden Interview and care-recipient symptoms with the Neuropsychiatric Inventory Questionnaire. Results: Six family caregivers participated in the pilot project and reported small improvements in caregiver's mood and significant improvements in care-recipient’s symptom severity and distress. Participants all reported agreeing or strongly agreeing with program satisfaction questions and found the training to be useful. Conclusions: These findings have implications for broader implementation of improvisational techniques for educating family dementia caregivers.

Keywords
Alzheimer’s/Dementia, caregiving and management, care partner, communication, psychosocial

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Introduction
Dementia presents enormous challenges to people living with the condition, their families, the healthcare system, and society-at-large. Worldwide, approximately 55 million people have dementia, with numbers expected to rise to 78 million by 2030 (World Health Organization, 2021). People living with dementia experience a wide range of symptoms including depression, anxiety, irritability and losses in motor skills, cognitive functionality, and communication abilities (Cerejeira et al., 2012). Effective communication becomes increasingly more difficult for family caregivers and care-recipients when symptoms increase and the need for effective and positive communication is at its greatest (Young et al., 2011). While dementia research efforts have focused on biomedical aspects of diagnosis and treatment, efforts to find appropriate psychosocial interventions to improve the lives and caregiving skills of family members have lagged behind (Gilhooly et al., 2016; Vernoij-Dassen et al., 2021).

Research shows that communication between caregivers and care-recipients should be respectful, flexible, adaptive, and creative, including the use of art and music (Basting, 2013; van Manen et al., 2021), however, these are not often skills that family caregivers possess. This paper is a brief report on a novel pilot program called Improv to Improve for family dementia caregivers in the United States to help build resilience and improve social caregiving situations with creative improvisational theater techniques. This innovative 6-week training utilized the stress and coping model as a theoretical framework (Gallagher-Thompson et al., 2020; Pearl et al., 1990) to increase positive dementia caregiving experiences by improving listening and communication mastery of family caregivers while reducing caregiving burden and low mood. By promoting positive coping and communication skills through improvisational techniques and exercises (“improv”) in weekly 2-hour sessions, the program provided caregivers with the tools, skills, and ongoing resources to deal with uncertainty, explore how self-expression (improv acting) can be a form of self-care, and learn how such communication skills can strengthen their lives.
caregiving relationships and build caregiving confidence (Krueger et al., 2019; Madson, 2005). These skills were hypothesized to increase caregiver mood and reduce feelings of caregiver burden during the intervention.

**Methods**

Two experienced improv teachers developed the curriculum for the 2-hour long weekly sessions in collaboration with the university researcher (first author Howell, a gerontologist) and led each weekly improv training session with the assistance of a dementia advocate (a Certified Dementia Professional from a local Alzheimer’s agency) and two student research assistants (second and third authors Piech and Wolfe). This was done by carefully considering how the goals for caregiver participants may differ from a typical improv class participant. For example, improv classes are often designed to prepare the participants for creating scenes and stories that would be entertaining for an audience, however, this program was instead designed to focus on strengthening positive interpersonal communications between the caregiver and care recipient. More information about the design and content of each 2-hour improv session with caregivers held at a community theater can be found elsewhere (Howell et al., n.d.).

Participants in the program were dementia family caregivers recruited through the local Alzheimer’s agency, all of whom signed informed consent approved by the University of Alaska Anchorage IRB (protocol # 1781926) and received $10 grocery store gift card incentives for their weekly participation. The program was evaluated by comparing data collected from caregivers regarding their mood before and immediately following completion of the 6-week course using the Beck Depression Inventory-II and the Zarit Burden Interview. Although care-recipients were not participants in the training program, information about the care-recipient’s symptom severity and levels of distress were measured with the Neuropsychiatric Inventory Questionnaire. These tools were also used in the only other published studies in the gerontological research literature (to date) utilizing improv training with dementia caregivers (Almen & Caldwell, 2019; Brunet et al., 2021). Lastly, dementia caregivers in *Improv to Improve* also completed a post-program satisfaction survey about their program experiences.

**Results**

Although six participants began the pilot program, only five completed it (three males and two females) due to health concerns for one older female participant during the COVID-19 pandemic. Two participants were over 60 years of age and caring for a spouse with dementia while the remaining three participants were between 35 and 59 years of age caring for a parent ($n=2$) or aunt ($n=1$). Respondents reported small improvements in their mood ($d=0.28$) and caregiver burden ($d=0.14$) with more significant improvements reported regarding the severity ($d=0.99$) and distress ($d=0.50$) experienced by their care-recipients neuropsychiatric symptoms before and after the improv program (Table 1. below).

Respondents ($N=5$) also reported program satisfaction on a 5-point Likert scale (1=strongly agree, 5=strongly disagree) where they indicated satisfaction with the quality of the program (mean=1.4) and that they acquired new knowledge and skills (mean=1.8). They agreed that they will be able to apply the knowledge they gained in the class to their daily lives (mean=2) and that the program can play a role in improving quality of life outcomes (mean=2). The survey also asked for written feedback regarding the program, where one male stated that the program,

> “Got me in the overall mode of improv. ‘Yes and’ emphasized stepping into the other person’s reality. Go with the flow. My partner has mild dementia and has trouble with communication. Improv techniques lessen the stress and keeps the communication going.”

One female also appreciated,

> “having a safe creative environment whereby design you don’t always know what is going on, but learn to read interpersonal cues to figure it out. After figuring it out you then joined them and positively added to their world.”

Three participants also wrote that they wanted the program to be longer than 6 weeks and to include more resources for how they could continue learning about improv after the sessions ended.

**Table 1.** Means, Standard Deviations, and Effect Sizes of Pre- and Post-Program Outcomes ($N=5$).

|                      | Before Improv to Improve (std dev) | After Improv to Improve (std dev) | Effect size (Cohen’s d) |
|----------------------|------------------------------------|-----------------------------------|-------------------------|
| PHQ-9                 | 6.40 (1.67)                        | 5.40 (4.83)                       | 0.28                    |
| ZBI                   | 15.80 (8.95)                       | 14.60 (8.32)                      | 0.14                    |
| NPI-Q total severity  | 9.80 (3.11)                        | 6.20 (4.09)                       | 0.99                    |
| NPI-Q total distress  | 8.20 (2.68)                        | 6.00 (5.66)                       | 0.50                    |

*a* Beck Depression Inventory-II total score.

*b* Zarit Burden Interview total score.

*c* Neuropsychiatric Inventory Questionnaire sum total of severity ratings.

*d* Neuropsychiatric Inventory Questionnaire sum total of distress ratings.
Discussion

In Improv to Improve, family caregivers learned and practiced communication techniques to build skills around accepting the unexpected, dealing with uncertainty, and responding positively to their loved ones with dementia in a fun and social environment (Nachmanovitch, 2019). Family caregivers learned to build social relationships with each other, engage in self-care practices through humor and play, and increase their mastery of compassionate caregiving practices through the basic components of improv (Leonard & Yorton, 2015; Lobman, 2015). A similar improv study by the Cleveland Clinic in Las Vegas has corroborated our results, suggesting that perceptions of caregiver burden and depression may be reduced, as well as reported increases in quality caregiving experiences, despite changes in the neuro-psychiatric symptoms of the care-recipient (Almen & Caldwell, 2019; Brunet et al., 2021). Improv skills have the potential to assist with creating and supporting positive relationships between the family caregiver and the care-recipient.

Conclusion

The goal of the program was to increase resilience and social caregiving situations through improv, communication, and promoting positive coping skills through improvisational techniques. This pilot project demonstrates the positive impact for a small number of family caregivers enrolled in the improv communication training program, which may help to reduce caregiver burden, care-recipient symptom severity and distress, and improve caregiver mood. While we plan a larger implementation and evaluation of this program, we encourage other researchers to explore creative, adaptive, and flexible communication training for family caregivers to improve quality of life outcomes for care-recipients and caregivers alike.

Declaration of Conflicting Interests

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