

COPE in PACE: Reducing Neuropsychiatric Symptoms in Dementia Patients



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Abstract

- There is currently an absence of large-scale approaches to delivering evidence-based interventions for dementia. This is due to the lack of scalable training methods and reliable methods for measuring fidelity.
- This research study, the “Care of Persons with Dementia in their Environments” (COPE) in “Programs of All-Inclusive Care of the Elderly” (PACE), will evaluate the feasibility of incorporating an evidence-based intervention, COPE, into an existing service model, PACE settings.
- The effectiveness of asynchronous online modules to train healthcare providers will be compared to traditional methods of instructor-led synchronous sessions.
- The three aims of this study include:
 - Aim 1: Comparing occupational therapists’ (OTs) and registered nurses’ (RNs) outcomes (level of confidence, competency, and training satisfaction) in both training modalities.
 - Aim 2: Comparing fidelity of COPE implementation by study arm.
 - Aim 3: Comparing efficacy of COPE via dyad (PLWD and caregivers) outcomes, such as physical function, Quality of Life, and caregiver wellbeing, from both asynchronous and traditional training.

Methods

- 10 PACE sites are randomized to receive one of the two training modalities. At each site, up to 2 OTs and 1 RN will be recruited to receive training and deliver COPE to 5 dyads.
- Dyad measures include:
 - PLWD: health-related quality of life, functional ability, and neuropsychiatric symptoms
 - CG: wellbeing, skills, and stress reduction.
- Additional study measures that capture implementation mapping include: Framework for Reporting Adaptations and Modifications-Enhanced (FRAME), Expert Recommendations for Implementing Change (ERIC), Normalization MeASURE Development (NoMAD), and Organizational Readiness to Change Assessment (ORCA).
- FRAME and ERIC are used to evaluate the implementation of the intervention through tracking modifications made at each site. NoMAD and ORCA are used to evaluate health partner preparedness and dyad outcomes, respectively.
- Audio recordings of COPE sessions will be automatically transcribed via Amazon and Microsoft and analyzed by a machine learning algorithm.

Discussion

- Fidelity monitoring software with machine learning is still being developed using traditional fidelity checklists.
- COPE in PACE is currently undergoing beta testing with two sites.
 - Preliminary results show that preparedness scores may be lower with OTs. Though, as these results are from a small sample size, this may not be significant.
- COPE in PACE aims to introduce evidence-based practices in clinical settings with Medicare and Medicaid recipients.

Hypotheses include:

- Virtual modules will provide similar, if not better, fidelity.
- Caregiver burden will be reduced by COPE through increased sleep efficiency and reduced neuropsychological symptoms in the care receiver.

References

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Background

- Dementia is a neurodegenerative disease that affects millions of Americans, and the lack of progression in pharmacotherapy indicates a need to emphasize care management.
- Dementia caregivers are highly susceptible to stress and poor health as a result of difficulties in unpredictable routines, a strained relationship with the care receiver, and ineffective coping strategies.
- Tailoring activities according to the person living with dementia’s capabilities and interests has been shown to reduce agitation and decrease behavioral symptoms.
- Recent technological innovations in natural language processing methods presents a large-scale solution for fidelity monitoring in trials.
- Employing an evidence-based intervention that utilizes a family-centered approach can reduce caregiver burden and increase quality of care.
- NIH promotes the study of implementation sciences through federal funding to promote evidence-based practices in clinical settings.

Key Elements



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