

The Role of Palliative Care Interventions to Reduce Circadian Rhythm Disorders in Persons with Dementia

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USA

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The Role of Palliative Care Interventions to Reduce Circadian Rhythm Disorders in Persons with Dementia

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1

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Circadian Dysregulation, Palliative Care, Dementia, palliative, neuropsychiatric symptom

Research Abstract

? DESCRIPTION (provided by applicant): Over 5 million Americans have Alzheimer's disease or a related dementia, a progressive and fatal neurodegenerative condition, affecting close to 15 million family caregivers (CG). A palliative model of care is advocated "upstream" for persons with dementia in order to enhance quality of life (QOL) and reduce symptom burden. Circadian rhythm disorders (CRD's) occur in the majority of persons with dementia and include late afternoon/evening agitation and irregular sleep-wake rhythms such as daytime hypersomnia, frequent night awakenings, and poor sleep efficiency. CRD symptoms pose a great burden to CG, and are the principal causes of distress, poor QOL, and institutionalization. Regulating the circadian system through the use of light and activity has been shown to alter core clock processes that drive CRD symptoms and suggests that a combination of cognitive, physical and sensory-based activities, delivered at strategic times, may be an effective mechanism through which to reduce CRD symptoms. A growing body of research supports the importance of activity-based interventions as a palliative approach to reduce the frequency and intensity of CRD symptoms, enhance personhood and dignity, and improve QOL. To date, there are no trials linking the nature and timing of activities with key palliative and biobehavioral outcomes. We propose a definitive Phase III efficacy trial of the "Healthy Patterns" intervention, a home-based activity intervention designed to improve CRDs and QOL that builds on our pilot work. We will use a randomized two-group parallel design of 200 people with dementia and their CGs (dyads) assigned to the "Healthy Patterns" intervention or a control intervention of equivalent in-home attention and social contact. Specific components of the intervention include: 1) assessing health/functional status and preferences/interests; 2) educating CG on environmental cues to promote activity and sleep; and 3) training of CG in using timed morning, afternoon, and evening activities based on circadian needs. The success of the intervention will be determined by its impact on palliative outcomes including measures of QOL as well as actigraphic and proxy reported measures of CRD symptoms. CG outcomes of interest will be burden, subjective sleep quality, and QOL. We will also examine the mechanism of action of the intervention on CRD symptoms through diurnal neuroendocrine activity measured via salivary cortisol and dim light melatonin. Results from the proposed study will provide fundamental new knowledge regarding the nature and timing of activity participation based on circadian needs, and the mechanisms underlying timed activities, has the potential to change how and when activities for persons with dementia are provided.

Lay Summary

PUBLIC HEALTH RELEVANCE: Statement: We propose an efficacy trial of an innovative intervention strategy designed to reduce the most common and distressing symptoms for individuals with dementia and their caregivers- circadian rhythm disorders. The Healthy Patterns Intervention provides activities delivered at strategic times based on changing sensory needs across the day, and is tailored to the unique cognitive, physical, social and interest profile of person. As there is no cure for dementia or standard of care for treating circadian rhythm disorders, developing and testing this novel palliative approach to minimize the devastating consequences of this disease, is a major public health priority that can positively impact dementia care in the United States.

Further information available at:

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