

# **Development and Evaluation of a Nurse Practitioner-Directed Mindfulness Meditation Program to Decrease Loneliness for Geriatric Residents in a Long-Term Care Setting**Susan Mbugua DNP, APRN-PMHNP-BC



Project Advisor: Dr. Margarita David DNP, MSN, BSN, BA, BS, RN, PCCN, CSN

# **Problem Description**

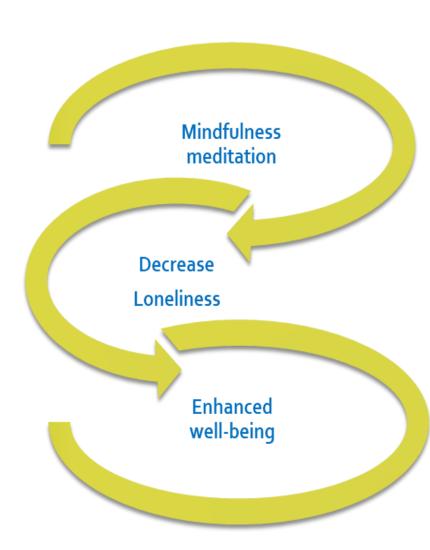
- Loneliness is a public health issue impacting older adults and has been exacerbated by the COVID 19 pandemic (Williams et al. (2021).
- The prevalence of loneliness has received growing public attention due to the COVID 19 pandemic and the office of the US surgeon general's office has highlighted loneliness as a public health crisis. Murthy (2021) highlights that in 2011, nearly 25% of people in the United States aged 65 or older were socially isolated. In 2018, 43% of adults aged 60 or older reported feeling lonely. Immigrants; lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ+) populations; and people in long-term care settings such as nursing homes are at elevated risk for social isolation and loneliness.
- The growing loneliness pandemic is expected grow as the United Loneliness and social isolation can be detrimental to emotional and physical health and has been linked to increased mortality, cardiovascular disease, cognitive decline, dementia, depression, anxiety and overall poor health and wellbeing (Fakoya et al. (2020)
- The financial impacts of social isolation and loneliness are unfolding, according to (HRSA, 2019) an annual estimate of \$6.7 billion federal spending is attributable to social isolation among older adults.

## **Available Knowledge**

- There is evidence in research demonstrating that mindfulness exercises can improve subjective feelings of loneliness and improve overall psychosocial well-being.
- Lindsay et al. (2019), conducted a Randomized Control Trial (RCT) on the effects of smartphone-based mindfulness training to reduce loneliness and increase social contact.
- These findings highlight that mindfulness techniques can serve as behavioral therapeutic targets for improving social-relationship feelings of loneliness and social disconnect (Lindsay et al. 2019).
- A study by Moberg et al. (2019), concluded that the intervention delivered via a commercial self-guided smartphone mobile app which included mindfulness concepts was an effective tool to empower individuals to manage their symptoms of stress, anxiety, and depression and increase their self-efficacy.

# Specific Aims/Project Purpose

- This study aims to evaluate and measure the effectiveness of mindfulness meditation on decreasing loneliness in adults over age 65 years old.
- The intervention will assist this population in learning evidenced-based mindfulness meditation techniques https://www.eurekaselect.com/images/graphical-abstract/cdt/20/7/008.jpg
   that help cope with feelings of loneliness, ultimately improving social engagement



#### **PICOT**

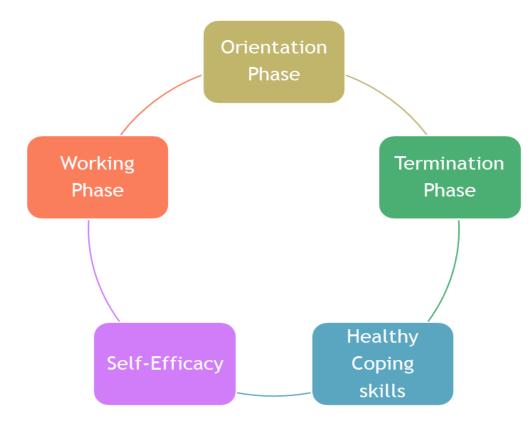
In Adults over the age of 65 how does mindfulness compared to current state, affect loneliness in six weeks.

- P- Adults over 65 years.
- I- Mindfulness.
- C- Current state.
- O- Loneliness.
- T six weeks

## **Theoretical Framework**

Hildegard Peplau's theoretical model serves as a guide and framework for the DNP project.

- Theory focuses on the interpersonal processes and the therapeutic relationship between the nurse and the client.
- Peplau's theory nurse-patient relationships must pass through three phases to be successful: (a) orientation, (b) working, and (c) termination (Hagerty et al. 2017).
- Dal'Bosco et al. (2021) emphasized that using interpersonal theory in psychiatric care when dealing with psychological concerns can enhance interpersonal relationships, care, and guidance for individuals with potential psychological distress caused by social isolation and loneliness



### Method

- Participants: Adults over 65 residing in a residential care setting located in Beaverton, Oregon.
- Ten participants were screened, six met eligibility criteria and four were excluded.
- Participants who met the inclusion criteria and voluntarily agreed to participate in the project received the University of California Loneliness Scale tool (UCLA-LS) screening questionnaires with instructions to complete pre and post mindfulness intervention.
- Participants self assigned alpha numeric codes randomly for data collection and to ensure confidentiality.
- The participants were also asked a question on the frequency of use of the application.
- Pre and Posttest: Participants completed UCLA Loneliness screening tool at baseline and a weekly posttest following the mindfulness meditation intervention.
- Participants were informed that withdrawal or lack of participation would not affect their living situation.
- Data collected did not use any personal identifiers that could potentially link the participants to the survey results.

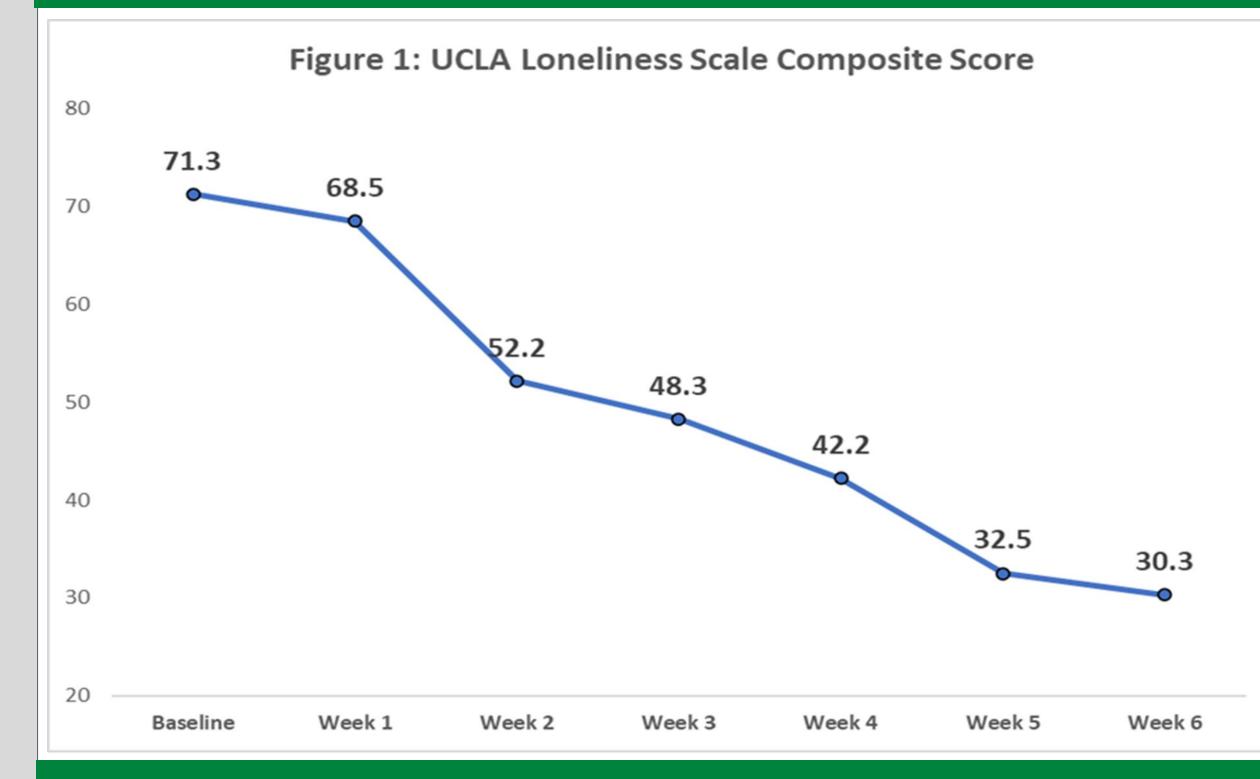
## Interventions

- Calm, a voice-guided mindfulness meditation app was selected for this project because it is an evidence-based application that has demonstrated efficacy in decreasing negative feelings, improve wellbeing and self-efficacy (Clarke & Draper, 2020).
- Participant utilized the meditation mindfulness Calm app for 10 minutes daily over a period of six weeks.
- Mindfulness meditation activities increase self-awareness of the present moment without judgment (Calm, 2022).

#### Measures

- The UCLA Loneliness Scale contains twenty items which were rated by the subjects with a four-point scale ("Never," "Rarely," "Sometimes," or "Often"). Administered Pre-Post Mindfulness Intervention.
- To evaluate the project outcome, ANOVA a repeated measure analysis of variance" with a test for linear trends was utilized for data analysis.

# Results



## Discussion/Results

#### Demographics

- The project was conducted over a six- week period.
- Sample n= 6 participants completed the study.
- The study subjects had an average age of 69 with an even split between male and female.
- Two thirds of the subjects had completed a college degree, and the remainder had completed high school.
- Two-thirds of the subjects were Caucasian 69%, and the remainder 33% were African American
- A steadily decreasing level of loneliness was observed from Baseline to Week 6 (p < .001) indicating a statistical significance between the use of mindfulness meditation app and levels of loneliness.
- There was a gradual improvement in loneliness scores from Baseline to Week 6.
- Frequency of app usage declined somewhat over the seven measurements (p = .028).

# Limitations/Implication for Practice

#### Limitations

- Small sample size.
- Not generalizable to individuals who may have technological challenges.
- Participants required extensive training to independently utilize the calm app.

#### Implications for Advanced Nursing Practice

- Translating evidence-based project into clinical practice could positively influence care of patients that tackle loneliness, ultimately decreasing depression, anxiety and poor health outcomes.
- The project provided participants with adaptive long term coping strategies to cope with feelings of loneliness.
- This QI project provided an opportunity to address loneliness in older adults while addressing the current gaps in the clinical setting.

## Plan for Sustainability

- Incorporate the mindfulness intervention into the referral process and write prescriptions/recommend mindfulness techniques when patients endorse loneliness.
- Continued collaboration and dissemination of project outcomes through networking with geriatric nurse practitioners in the community who can recommend mindfulness intervention for patients to manage and cope with loneliness feelings.
- The stakeholders will continue subscription of mindfulness meditation calm app for the residents through continued grant fundings.
- Share project outcomes and result with Calm organization and encourage continued utilization of mindfulness in this population and setting.

#### References

Calm (2022). Calm Science. Retrieved from https://business.calm.com/science
Dal'Bosco, E., Floriano, L., Rangel, A., Ribas, M., Cavalheiro, A., Silva, C., & Cabral, L. (2022). Coping

in mental health during social isolation: Analysis considering hildegard peplau. Revista Brasileira de Enfermagem, 75(2). https://doi.org/10.1590/0034-7167-2020-1207

Clarke, J., & Draper, S. (2020). Intermittent mindfulness practice can be beneficial, and daily practice can be harmful. an in depth, mixed methods study of the "calm" app's (mostly positive) effects. Internet Interventions, 19, 100293. https://doi.org/10.1016/j.invent.2019.100293

Fakoya, O. A., McCorry, N. K., & Donnelly, M. (2020). Loneliness and social isolation interventions for older adults: A scoping review of reviews. BMC Public Health, 20(1). <a href="https://doi.org/10.1186/s12889-020-8251-6">https://doi.org/10.1186/s12889-020-8251-6</a>

Hagerty, T. A., Samuels, W., Norcini-Pala, A., & Gigliotti, E. (2017). Peplau's theory of interpersonal relations. Nursing Science Quarterly, 30(2), 160–167. <a href="https://doi.org/10.1177/0894318417693286">https://doi.org/10.1177/0894318417693286</a>
Health Resources and Service Administration. (2019). The Loneliness Enidemic

Health Resources and Service Administration. (2019). The Loneliness Epidemic. https://www.hrsa.gov/enews/past-issues/2019/january-17/loneliness-epidemic

Lindsay, E. K., Young, S., Brown, K., Smyth, J. M., & Creswell, J. (2019). Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial. Proceedings of the National Academy of Sciences, 116(9), 3488–3493. https://doi.org/10.1073/pnas.1813588116

Moberg, C., Niles, A., & Beermann, D. (2019). Guided self-help works: Randomized waitlist-controlled trial of Pacifica, a mobile app integrating cognitive behavioral therapy and mindfulness for stress, anxiety, and depression. Journal of Medical Internet Research, 21(6), e12556. https://doi.org/10.2196/12556

Murthy, V. H. (2021). Covid-19 pandemic underscores the need to address social isolation and loneliness. Public Health Reports, 136(6), 653–655. https://doi.org/10.1177/00333549211045425 Hagerty, T. A., Samuels, W., Norcini-Pala, A., & Gigliotti, E. (2017). Peplau's theory of interpersonal relations. Nursing Science Quarterly, 30(2), 160–167. https://doi.org/10.1177/0894318417693286