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**Targeting Loneliness in Older Adults with
Weekly Socialization**

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A Dissertation Submitted to The Graduate School at the University of Missouri St. Louis
in partial fulfillment of the requirements for the degree
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Abstract

Problem: Loneliness related to social isolation among the older adult population has become an increasing health concern with few interventions available for the general population. Loneliness has been directly associated with depression, poorer physical health outcomes, and overall quality of life.

Methods: The purpose of this study is to evaluate loneliness in the older adult population residing in a senior living community in an urban area in Missouri. Weekly one-on-one socialization, ranging from 45-60 minutes, will be implemented over 6 weeks, with pre and post-intervention screening for loneliness with the 28-item Visit-A-Bit (VAB) screening tool. Approval was received by both VNA and the developer of the VAB program and screening tool, with the aim of improving the quality of life in this older adult population and the development of future similar programs.

Results: No difference in reported loneliness was observed utilizing the Visit-A-Bit questionnaire, therefore statistical analysis, the t-test, could not be run. None of the participants reported feeling lonely living in the senior living community. There were however varied reports of feelings of emptiness and quality of life, though no changes were reported post-intervention. Nursing students utilized for the intervention reported an increase in insight into the needs of this population and the benefit of providing more compassionate care moving forward in their nursing careers.

Implications for Practice: Socialization with older adults can positively impact nursing students and potentially improve their patient outcomes. Socialization programs could be used to not only enhance the quality of life for the older adult population but also improve overall healthcare outcomes.

Keywords: *older adults, social isolation, loneliness, depression, quality of life, mortality.*

Loneliness and social isolation are growing public health concerns in our aging American society (Fakoya et. al., 2020). While the experiences occur across the lifespan, 50% of adults over the age of 60 are at risk of social isolation and one-third will experience some degree of loneliness late in life (Fakoya et. al., 2020). Social isolation is objective and quantifiable, while loneliness is a perceived deficiency (Beller & Wagner, 2018). Both constructs are important in predicting health (Beller & Wagner, 2018). Loneliness is experienced by approximately one-third of older adults in the UK and is a modifiable risk factor for depression (Lee et. al., 2021). The prevalence of depressive symptoms in older adults is approximately 10-15% (Tsai et. al., 2022). In older adults, the severity of depression has been associated with higher mortality rates (Tsai et al., 2022).

Studies from the United States (USA), Canada, Japan, and Korea, show that older adults residing in care homes report lower quality of life and less happiness than those residing in community dwellings (Gardiner et al., 2020). Despite the established link between loneliness and health, the evidence base on the loneliness of adults living in care homes is limited, as is the optimal strategy to promote well-being (Gardiner et. al., 2020). Additionally, while the adverse impacts of loneliness and social isolation on quality of life are well documented, as well as their strong association with health outcomes, the evaluation of loneliness and isolation has not been integrated into medical care (Perissinotto et. al., 2019). The strength of the association of adverse health outcomes has been compared with smoking (Perissinotto et al., 2019).

The sequela of poorer mental and physical outcomes associated with loneliness and depression is highlighted throughout the multitude of studies available and those represented in this project. This lower socioeconomic community has been identified by the Executive Director of St. Andrews Senior Solutions as an area of need, having fewer overall available resources than the communities they oversee in more affluent areas. The 28-item Visit-A-Bit (VAB) screening tool, developed by Kelli Rowland, and utilized in 2020 in the same region, but in community dwellings receiving care from Visiting Nurses Association (VNA), was utilized to assess loneliness in this population before and approximately 6-8 weeks following the implementation of the VAB program. The VAB quality improvement initiative was originally initiated by the VNA in 2018 (Rowland, 2021). The VAB included one on one visits, weekly, lasting approximately one hour. The aim of this project is to extend the program to senior living facilities and include the use of nursing students to concomitantly reduce loneliness in this population and provide insight into the impact of loneliness and interpersonal relationships for future patient care by the nursing students.

Review of the Literature

A comprehensive review of the current literature was performed using electronic databases PubMed, EBSCO, and CINAHL, with results equaling 1,380 peer-reviewed studies. Keywords included *older adults*, *loneliness*, *quality of life*, *mortality*, *weekly socialization*, and *loneliness intervention strategies*. Boolean operators included AND “social isolation” OR “mortality” AND “older adults” OR “depression”. Inclusion criteria included peer-reviewed studies written about loneliness in older adults, published between 2018 and 2023, adults aged 65 and older and studies written in the English

language. Exclusion criteria included articles published before 2018, adults younger than 65, and studies not written in English. Of the 1,380 results 13 peer-reviewed studies were chosen for review including five systemic reviews, one randomized clinical trial, one prospective cohort, one longitudinal study, one observational analytic design, two scoping reviews, and three retrospective cohort studies.

Social isolation is usually characterized as an objective lack of meaningful and sustained communication, while loneliness is more referred to the way people perceive and experience the lack of interaction (Poscia et. al., 2018). The effects of loneliness and social isolation synergistically interact with each other (Beller & Wagner, 2018).

Loneliness is thought to involve a perceived absence of companionship, meaningful connections, a sense of belonging, or empathic understanding (Lee et.al., 2021). The higher the social isolation, the larger the effect of loneliness on mortality, and the higher the loneliness, the larger the effect of social isolation (Beller & Wagner, 2018). In a systemic study, Poscia et al (2018) cite the ability to maintain relationships is frequently regarded as important to the well-being and in general, an essential component of healthy aging.

Mounting evidence of loneliness and negative impacts has placed loneliness among the “geriatric giants” in need of intervention by the healthcare system (Lapane et. al., 2022). Despite different tools used to measure loneliness, loneliness appeared common among older residents in congregate living situations, and in most studies, loneliness was associated with depression (Lapane et. al., 2022). Rodríguez-Romero et al., (2021) discuss the effectiveness of promoting socialization in a community intervention led by a nurse practitioner. This study, which included 18 weekly

socialization visits, showed improvement in perceived loneliness, and improved the health of the participants in a community-dwelling, in patients over the age of 65 years.

Both loneliness and social isolation pose a number of health risks (Beller & Wagner, 2018). Loneliness and social isolation have both been linked to diverse health outcomes such as depression, reduced cognitive functioning, and reduced immune functioning (Beller & Wagner, 2018). Depression among older adults is common, with an estimated prevalence of 4-9% worldwide, potentially underdiagnosed, and undertreated, and associated with substantial morbidity and mortality (Lee et. al., 2021). Depression is an important prognosis-predicting factor (Tsai et. al., 2022). Some types of depression have also been connected to increasing mortality in stroke, myocardial infarction, type II diabetes, and even frailty (Tsai et. al., 2022). Better identification of modifiable risk factors so depression would inform public health and clinical approaches to prevention (Lee et. al., 2021).

Popular opinion is loneliness, and subsequently depression, may be ameliorated by living in senior living communities, however, Taylor et al. (2018) found in a study with 148 participants in the St. Louis area living in senior living communities, a high prevalence of loneliness. Interventions should focus on both perceived loneliness and an individual's mental health (Taylor et. al., 2018). In a 12-year longitudinal study it was found that irrespective of social experiences, the higher the baseline score of loneliness, the higher the prevalence higher depression severity scores at follow-up (Lee et. al., 2021). In the few studies that have contrasted loneliness and social isolation, the evidence was mixed, with some researchers citing loneliness as the superior predictor and some citing social isolation as the superior predictor for mortality (Beller & Wagner, 2018).

Elderly people who leave their home environment and move to a nursing home enter a phase in life with diminishing contact with family and friends (Naik & Ueland, 2020). An observational analytical design study by Sya'diyah et al. (2020) found a strong relationship between caring nurses and the level of loneliness nursing home patients experienced, citing the greater caring behavior of nurses reduces perceived loneliness. Social isolation is an essential threat to the health of older adults, and many scholars have provided evidence for methods of alleviating this problem (Tong et. al., 2021). An all-cause mortality 10-year follow-up study in patients with cardiovascular disease in Taiwan showed social isolation as an increased risk for mortality after accounting for established risk factors (Yu et. al., 2021).

The relationship between loneliness and health outcomes, particularly mortality, is as great as many traditional medical risk factors (Perissinotto et. al., 2019). A recent meta-analysis demonstrated that loneliness has a greater impact on health than obesity, physical inactivity, and air pollution (Perissinotto et. al., 2019). There are cross-sectional studies depicting loneliness as a common phenomenon in long-term care facilities suggesting links to depression, suicidal ideation, and frailty (Lapane, et. al., 2022). The risks for loneliness may be of particular concern to persons with serious illness, as patients and caregivers cope with the experience of loss, loss of independence, and increasing care needs (Persisinotto et. al., 2019). Healthcare systems focusing entirely on traditional risk factors, such as hyperlipidemia and hypertension, may miss opportunities to impact factors that have as great an impact on health (Perissinotto et. al., 2019).

In summary, because loneliness is distressing to patients and interventions are likely to improve quality of life, it seems ill-advised for clinicians and health systems not

to at least conduct some assessment for loneliness and to consider practical interventions that may not require extensive resources (Perissinotto et. al., 2019). clinicians should be aware of loneliness as a potential risk factor for depression, assess for signs of loneliness in older adults, and consider strategies, such as social prescribing, psychological therapies which target negative cognitions, social skills training, psychoeducation, and supported socialization (Lee et.al., 2021). Recreational activities, ideally adapted to each person's physical needs and ability, have a positive impact by providing structure and meaning that help overtake feelings of loneliness (Naik & Ueland, 2021). mixed intervention targeting of older adults could be helpful for alleviating social isolation problems (Tong et. al., 2021). When designing social isolation intervention, it is essential to consider personal preference, living status, and physiological characteristics of older adults and adjust measures accordingly to promote the effectiveness of the intervention (Tong et al., 2021). This project will answer the question: What is the impact of a weekly socialization program for residents in independent living facilities?

The framework model that will be utilized for this project is the Iowa Model. The Iowa Model serves as a widely used framework for the implementation of evidence-based practice (Buckwalter et. al., 2017). This project came to fruition following the administrators at St. Andrews Senior Solutions identifying a greater need in the population this project will be implemented, than in other areas they service, and requested implementation of the VAB program to ascertain its effectiveness in improving the quality of life of their residents. Past and current collaboration with UMSL's College of Nursing has been successful in other populations the organization serves and this project will assist in determining not only the benefit to the residents but the utility of

extending the use of student nurses to fulfill the academic requirement of community engagement with this organization.

Methods

Design

The project will utilize evidence-based practice to create a quality improvement initiative utilizing the Visit-A-Bit (VAB) program to improve overall patient outcomes by ameliorating loneliness. The VAB has shown effectiveness in a St. Louis suburban community and will be assessed for effectiveness in an independent senior living facility, the goal being to extend this program to older adult living facilities. Third-year nursing students will conduct the intervention to assess the impact of weekly socialization with the older adult population with perceived future nursing attitudes while obtaining the required community engagement hours for their program. The project will utilize a descriptive cohort design.

Setting

This project will take place in an independent senior living facility located in an outlying area of the city of St. Louis, MO. This facility houses a diverse group of 63 residents over the age of 55 years old, male, and female. The facility provides transportation to events and shopping as well as meal service and regularly scheduled activities. Employees include cooks, maintenance workers, front desk personnel, and a director. There are no resident task-oriented personnel. The residents must be able to live independently to reside in this facility.

Sample:

A convenience sample of residents over the age of 65 will be utilized for this project.

Informational flyers will be distributed to all resident mailboxes, an informational flyer will be placed at the front desk, and an informative talk will be given during the residents' monthly update breakfast event to enable residents to ask questions. The desired sample size is 30% of the residents. There are 63 potential participants for the weekly socialization program. Inclusion criteria include residents over the age of 65 and English-speaking. Exclusion criteria include residents under the age of 65 and non-English speaking.

Approvals

Approvals were obtained from the Visiting Nurses Association (VNA) and the creator of the Visit-A-Bit (VAB) screening tool. Following this approval, the facility IRB was obtained, followed by university IRB approval from UMSL. There are no physical or emotional risks associated with the project. Potential benefits of the projects include ameliorating loneliness in the participating older adults, identifying previously unknown needs of the participants, and improving the interaction between nursing students and their future older patients. Ethical considerations include maintaining the privacy and confidentiality of all participants.

Tools

The screening tool utilized will be the Visit-A-Bit Loneliness screening tool created for the Visiting Nurses Association. Data will be de-identified by eliminating any personal identifiers and was identified only in numbers to ensure confidentiality was maintained. The data will be protected by being stored in a locked cabinet with access granted only to the director of the facility and the Doctoral student investigator.

Interventions

Preliminary work for this project included buy-in from the major stakeholders, which includes the Executive Director of St. Andrews Senior Solutions and the Facility Director of the independent senior living facility, in addition to eliciting the help of nursing students to perform the weekly one-hour socialization visit intervention. The students will receive an orientation to discuss the details of the project, intervention, and the facility where they would be participating. The intervention, lasting one hour, will be an activity of the residents' choice. Enrollment of the participants will include advertising the project and educating the potential participants. Once participants have been identified they will be screened utilizing the Visit-A-Bit screening tool and assigned to a student. The initial visit will be scheduled at the time of enrollment with subsequent scheduling done by the students. At the end of the six-week intervention period, the VAB screening tool will be completed to assess the effectiveness of the project in this population.

Data collection and analysis

The data collected by the Doctoral student investigator will be limited to the responses of the VAB Loneliness screening tool. The screening tool includes questions regarding perceived quality of life, family and social networks, depression, and social determinants of health. The Loneliness screening tool is comprised of questions obtained from the DeJong Gierveld Loneliness Scale (DJGLS), the Patient Health Questionnaire-2 (PHQ-2), and the Lubben Social Network Scale-6 (LSNS-6) (Rowland, 2021). Additional questions include food security, modes of transportation used, the availability of a phone and internet service, and if visit tasks are desired or needed. Demographic data will include be residents' age to ensure the validity of the study of residents 65 and older.

Results

The questions listed on the VAB screening tool questions extrapolated to ascertain perceived loneliness were initially meant to be analyzed utilizing t-tests, however, because there were no changes in responses on the post-intervention questionnaire it was not possible to perform them. Instead, descriptive analyses were performed which yielded helpful data moving forward with researching loneliness and targeting root causes to create and implement interventions to ameliorate loneliness and improve overall quality of life. The study also yielded differences in male and female reports of quality of life, feelings of emptiness, and whether there was a preference for the type of volunteer for social visits. Participants reported having activities or hobbies to prevent feeling lonely such as prayer, reading, artwork, volunteer work, and participating in scheduled activities facilitated by the independent living facility.

Eleven residents volunteered to participate in this study ($N=11$). One resident was dropped from the program prior to completion due to improper behavior and inappropriate expectations of the student volunteer. Of the participants in the study, 63.6% ($n=7$) were female, and 36.4% ($n=4$) were male. Participant ages ranged from 68 years to 88 years. The median age was 76 years old. None, male nor female, reported feeling depressed or lacking for phone or internet to reach out to friends or loved ones prior to or post-intervention. Female participants reported better overall quality of life with all being good or excellent while the males reported fair or good quality of life. A preference for the type of volunteer for social visits was expressed by 8.3% ($n=2$) of the participants, which were males, who preferred to have a female provide socialization visits. Female participants expressed no preference. Visit tasks were desired by 8.3%

($n=2$), all of whom had a current physical disability making certain activities of daily living more challenging,

Discussion

Participants in this program all had daily access to socialization by way of living in an apartment complex, if desired, through dining in the community dining room and participating in scheduled activities of the facility. The facility also provided transportation for social outings and shopping. The availability of these resources differs greatly from the original participants from the home visitation service residing in the single-home dwellings. Though no significant statistical changes or improvements in the participants' quality of life or feelings of emptiness were reported, all the participants expressed enjoying socializing with the students and expressed the desire for continued visits. The results of this study contradict the findings of a 2018 study in the same area, citing a high prevalence of loneliness in senior living communities.

The aim of the study was to ascertain the effectiveness of weekly socialization for residents living in the independent living facility, however, following debriefing at the end of the program with the students two questions were posed to determine the value of utilizing students moving forward with future visits. The questions were, "Did this experience help you gain insight into the physical and emotional needs of older adults?" and "Do you think this experience will help you provide more compassionate care for your older patients in the future?". Each of the students expressed benefiting from participating in the program for gaining insight into the needs of this population and improving providing compassionate care in their future nursing careers.

Conclusion

The tool used for this project originated from a home visitation service and was designed for in-home patients. For an accurate analysis of loneliness and how that is defined or perceived in various populations, both population-specific and community-specific tools must be created. Additionally, larger sample sizes for validation of data results are needed for a more accurate analysis of loneliness. Ways to reach participants less inclined to volunteer or request such services should also be further explored. To assess the effect on insight and compassion, further research needs to be done utilizing nursing students interacting in the community, specifically in underserved and older adult communities. Studies are currently limited but show improved outcomes with more caring nurses. Further studies should also be done to ascertain the relationship between the reported higher quality of life while also having reported a higher incidence of emptiness in females than males.

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Appendix A

Senior #: _____

Date: _____

Age: _____

Initial visit

Week 1 2 3 4 5 6

General Questions

1. Currently, how would you describe the quality of your life?

Poor (1) Fair (2) Good (3) Excellent (4)

2. How often do you feel lonely?

Never Rarely Sometimes Often

3. After someone visits with you, when do you begin to feel lonely again?

24 or more hours 12-23 hours 7-12 hours 1-6 hours

4. When do you feel most lonely?

Morning Afternoon Night N/A

5. What activity or activities help you to reduce your

loneliness? _____

DeJong Gierveld Loneliness Scale (DJGLS)

6. Do you experience a general sense of emptiness?

Yes More or less No

7. Do you miss having people around you?

Yes More or less No

8. Do you often feel rejected?

Yes More or less No

9. Are there plenty of people to rely on when you have problems?

Yes More or less No

10. Are there many people you can trust completely?

Yes More or less No

11. Are there enough people you feel close to?

Yes More or less No

Patient Health Questionnaire-2 (PHQ-2)

Over the last two (2) weeks, how often have you experienced any of the following?

12. Little interest or pleasure in doing things?

Not at all	Several days	More than half of	Nearly every day
(0)	(1-6)	the days (7-10)	(11-14)

13. Feeling down, depressed or hopeless?

Not at all	Several days	More than half of	Nearly every day
(0)	(1-6)	the days (7-10)	(11-14)

Lubben Social Network Scale-6 (LSNS-6)

14. How many relatives do you see or hear from at least once a month?

Five or more Three or four One or two None

15. How many relatives do you feel at ease with that you can talk about private matters?

Five or more Three or four One or two None

16. How many relatives do you feel close to such that you could call on them for help?

Five or more Three or four One or two None

17. How many friends or neighbors do you see or hear from at least once a month?

Five or more Three or four One or two None

18. How many friends or neighbors do you feel at ease with that you can talk about private matters?

Five or more Three or four One or two None

19. How many friends or neighbors do you feel close to such that you could call on them for help?

Five or more Three or four One or two None

Other Questions

20. What transportation system do you use?

Personal Public If public, what type?

21. Do you have enough food every day of the month?

Yes No If no, explain?

22. Would you like some information on utility or food assistance?

Appendix B

Table 1

Frequency Table for Nominal Variables

Variable	min	max	M	<i>n</i>	%	
Age	68	88	XX	Gender		
Gender						
Female				7	63.6	
Male				4	36.4	
Missing				0	0.0	
Race						
Caucasian				10	90.9	
African American				1	9.1	
		Pre			Post	
Loneliness	2	4	3.7	2	4	3.7
Depression						
Emptiness						
Quality of Life						

Table 2

What transportation system do you use?		
Personal	2	18.18
Public	9	81.81
Do you have enough food every day of the month?		
Yes	10	90.9
No	1	9.1
Would you like information on utility or food assistance?		
Yes	1	9.1
No	10	90.9
Do you feel safe in your home environment?		
Yes	11	100.0
No	0	00.0
Do you use a cell phone or a landline?		
Cell phone	9	90.9
Landline	2	9.1
Do you have internet access?		
Yes	11	100.0

No	0	00.0
Are you interested in visit tasks?		
Yes	2	9.1
No	9	90.9

Note: Due to rounding errors, percentages may not equal 100%