

Background

- Interpersonal relationships (family, friends, co-workers, strangers, etc.) assist to build one's confidence and maintain physical, mental and psychological wellness.
- Factors such as: less social support, smaller social networks, and negative social interactions have been linked to depression, poorer immune functioning, lower self-rated health, increase incidence of disease, and higher mortality
- Loneliness does not discriminate against age, race, economical status, etc.
 - Strong association between stress due to loneliness and sleep problems
- Increased elderly population \geq 65 years old and higher life expectancy
 - From technology and research
 - Mental and psychological health needs improvement
- Social isolation could be more noticeable in elderly hospitalized for long periods of time
 - Social interactions may decrease or be limited
- COVID 19 associated deaths worldwide are among the highest in long-term care (LTC) residents

Purpose

- To prospectively evaluate changes of loneliness, sleep quality, and quality of life in elderly in-patients (\geq 65 years) admitted to a skilled care unit

Methods

Setting

- A skilled care unit at a midwestern Magnet® recognized hospital

Sample/Participants

Inclusion criteria:

- 65 years old and older
- Admitted to skilled care unit
- Able to read and write in English

Exclusion criteria:

- Discharge within three days of admission to the skilled care unit
- Patients with dementia
- Non-verbal

Instruments/Measures

PSQI

- Self-report questionnaire that assesses sleep quality over a 1-month time interval. The measure consists of 19 individual items, creating 7 components that produce one global score, and takes 5-10 minutes to complete.

UCLA Loneliness scale (version 3)

- A 20-item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation using a 4-point rating scale (1=never; 2=rarely; 3=sometimes; 4=always)

QLI scale version 3,

- Measures quality of life, defined as "a person's sense of well-being that stems from satisfaction and importance regarding various aspects of life. The QLI produces five scores: quality of life overall, health and functioning, psychological/spiritual, social and economic, and family.

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Methods, contd.

Procedures

- Study initiated February 2020 and completed August 2020
- March 12th, 2020: full state lockdown and no-visitor restrictions enacted
- Subjects completed a demographic survey, the Pittsburg Sleep Quality Index (PSQI), UCLA Loneliness scale (version 3), Ferrans and Powers Quality of Life Index (QLI) Nursing Home version III at admission and once a week until discharge.

Analysis

- Descriptive statistics and repeated measures ANOVA (SPSS for windows version 16) were used to determine effect sizes, Cohen D, at baseline and weekly until discharge with the level of significance $p < 0.05$ for all analyses

Results

Demographics (n=12)	
	n (%)
Age, M (SD)	77 (1.3)
Length of stay in days, M	26
Sex	
Female	10 (84)
Marital Status	
Married	5 (42)
Widowed	3 (26)
Single	2 (16)
Divorced	2 (16)
Level of Education	
College	10 (84)
High School	2 (16)
Race	
White	10 (84)
African American	2 (16)
Sleep patterns during admission	
Sleep Aids	6 (50)
Non-Sleep Aids	6 (50)
Mobility	
Ambulatory	9 (75)
Bed-ridden	3 (25)
Weight on admission	
Normal-range	9 (75)
Obese	3 (25)
Family Support	
Present	9 (75)
Not Present	3 (25)
Subjects enrolled during COVID restrictions	9 (75)

- 86 patients who qualified were invited to join the study and 12 patients agreed to participate and signed consent
- Lockdown and the unknown about COVID 19 affected my recruitment process
- All subjects completed follow-up during the no-visitor restrictions placed due to the pandemic

Results, contd.

The Most Influential Information from the Study

Measure	Condition (Items)	Effect sizes compared to baseline (SD)
Loneliness UCLA scale		
	Loneliness (Week 2) (n=12)	0.020 (8.419)
	Loneliness (Week 3) (n=9)	-0.054 (8.514)
	Loneliness (Week 4) (n=4)	-0.367 (6.481)
	Loneliness (Week 5) (n=2)	0.671 (6.364)
Pittsburg Sleep Quality Index		
	b. waking up early or in the middle of the night (n=12)	0.000 (-1.044)
	c. bathroom (n=12)	0.000 (-1.044)
	f. too cold (n=12)	0.000 (-1.243)
	i. pain (n=12)	0.000 (-1.128)
Quality of Life Index		
	Total 2 (n=12)	0.283 (121.681)
	Total 3 (n=9)	0.028 (104.3609)
	Total 4 (n=4)	0.193 (65.619)
	Total 5 (n=2)	-0.020 (46.31549)
	Health & Function 2 (n=12)	0.184 (80.060)
	Health & Function 3 (n=9)	0.150 (58.873)
	Health & Function 4 (n=4)	0.724 (20.7605)
	Health and Function5 (n=2)	0.581 (12.3744)
	Socioeconomic 2 (n=12)	0.304 (21.684)
	Socioeconomic 3 (n=9)	0.025 (35.318)
	Socioeconomic 4 (n=4)	-0.250 (20.543)
	Socioeconomic 5 (n=2)	-0.059 (29.6985)
	Psych/Spiritual 2 (n=12)	0.400 (28.733)
	Psych/Spiritual 3 (n=9)	0.095 (39.7815)
	Psych/Spiritual 4 (n=4)	0.172 (17.4475)
	Psych/Spiritual 5 (n=2)	-0.589 (10.253)
	Family 2 (n=12)	0.007 (15.401)
	Family 3 (n=9)	-0.687 (14.537)
	Family 4 (n=4)	-0.784 (18.414)
	Family 5 (n=2)	-0.634 (18.7383)

- Improvements from baseline to week 2 were consistently positive for the QLI and ranged from small ($d=.2$), to medium ($d=.5$)

Discussion

- Healthy social relationships are important for maintaining mental and physical health in later life.
- Loneliness and stressful feelings among this elderly population was noticeable and may be due to the lack of personal touch from families and friends
- Opportunities to decrease loneliness, improve sleep habits, and quality of life were identified
- Providers should consider objective assessment for loneliness, sleep, and QOL to promote optimal care for this population
- Results from this study used to inform future interventional research aimed at decreasing loneliness for older patients requiring skilled care.

Participant Conditions with Significant Change (n=12)

Measure	Condition (items)	n (%)
UCLA Loneliness Scale		
	Loneliness (week 5)	2 (16.7%)
Pittsburg Sleep Quality Index Week 2 (Sleep Problems)		
	b. waking up middle of the night or early morning	12 (100%)
	c. getting up to bathroom	12 (100%)
	f. too cold	12 (100%)
	i. pain	12 (100%)
Quality of Life Index (following list consist from week 2 to week 7)		
	Total 2	12 (100%)
	Health & Function 4	4 (33.5%)
	Health & Function 5	2 (16.7%)
	Socioeconomic 2	12 (100%)
	Psych/Spiritual 2	12 (100%)

- The overall improvement in total scores was a $d=.184$. For the loneliness scale the week 1-2 effect was very small and this was similar for the PSQI