Innovative Research on Aging Awards

Inspiring Next Practices

INNOVATIVE RESEARCH ON AGING AWARDS

2022
The Innovative Research on Aging Awards recognize recent applied research that offers important implications for the senior living and aging services industries. Created to inspire next practices, the annual award honors groups and individuals for their research that can make a difference in the lives of older adults.

Each year, Mather Institute reviews dozens of submissions on a wide range of topics, including health and well-being of senior living residents, technological advancements for older adults, senior living workforce, and aging in place. The Institute selects award recipients based on

- relevance to important problems in the senior living industry
- quality of research methods
- potential actionability of findings and recommendations
- innovativeness of investigations

We hope these findings will benefit the industry as a whole, as organizations transform them into next practices.
PROMOTING PURPOSE THROUGH RESIDENT PROGRAMS
Providing Programs That Support Purpose in Life
University of Manchester. Division of Psychology and Mental Health: Rebecca Owen, DClinPsy, PhD, Katherine Berry, DClinPsy, PhD, Laura J. E. Brown, PhD

2022 GOLD AWARD RECIPIENT
CATEGORY: HEALTH AND WELL-BEING OF SENIOR LIVING RESIDENTS

FROM RESEARCH TO REAL LIFE
This research shows how the following strategies can help providers support residents to maintain a sense of purpose:

• Provide opportunities for residents to help and support one another, such as mentorship pairings with new residents.
• Identify activities that were personally meaningful to a resident before they came to the community, and then develop adapted versions that suit their current ability and environment. This process can support their sense of purpose in life by helping residents maintain their sense of identity.
• Learning is a key source of purpose in life. Therefore, identify new skills that residents could use in the community, and provide opportunities for residents to learn them.
• Ensure that residents are frequently consulted about the content of their community’s programs.

FOCUS: Can we better support resident wellness by making senior living programs more meaningful?

Long-term care staff aim to support their residents in living happy, healthy, and fulfilling lives. However, resident programs within these communities often focus on passive entertainment rather than purposeful engagement. Purpose in life is a core element of well-being that reflects the extent to which people feel that their lives have meaning, purpose, and direction. This study provides new insights into what importance long-term care residents place on purpose in life; how purpose in life can be promoted through resident programs; and what barriers and facilitators to engagement are faced by residents.

Researchers interviewed residents from four long-term care residences about their views and experiences regarding the following:
• what purpose in life means to them
• what helps give them a sense of purpose
• the extent to which they would like to engage in more purposeful activities
• how long-term care providers could help or hinder this engagement

Participants were also given fictional descriptions of two long-term care residents and asked to provide advice as to how these residents could increase their purpose in life.

FINDINGS
Analysis of the interviews yielded three themes:

Theme 1 reflected how losses (of people, roles, function, and identity) made it harder for residents to maintain a sense of purpose. Importantly, some residents were relieved by the associated lack of responsibility, whereas others sought to compensate for these losses.

Theme 2 indicated the particular importance of social connections, which increased purpose by providing opportunities to help others and feel needed. Important barriers to helping others, such as fear of causing offense, were also identified.

Theme 3 highlighted how activities that involved routine, or learning new skills, were particularly effective at increasing a sense of purpose.

READ THE ABSTRACT
FOCUS: Can we increase older adults’ sense of purpose with more positive social interactions?

Sense of purpose is a powerful promoter of successful aging: Older adults who have a higher sense of purpose live happier, healthier, and longer lives. Sense of purpose, or the extent to which individuals feel that they have personally meaningful life aims, often decreases in older adults. This study investigated whether daily feelings of purposefulness were tied to quality of social interactions, in hopes of providing a pathway for reversing older adults’ feelings of declining purpose.

The research was conducted with 106 older adults in Zurich, Switzerland, with up to 15 daily measurement occasions per participant. Participants reported on the quality of their most recent social interactions every morning, afternoon, and evening, and on their sense of purpose every evening. They did this for five weekdays. At six and twelve months later, they repeated the process for the same length of time. The researchers then evaluated whether having more positive or negative social interactions each day predicted how purposeful a participant felt on that same day.

FINDINGS
The study offers three primary findings:

1. People who had better social interactions generally had a stronger sense of purpose.

2. On days in which an individual had worse social interactions than usual, they felt less purposeful than usual, and on days in which they had better social interactions than usual, they felt more purposeful.

3. The association between daily positive social interactions and daily sense of purpose differed based on whether an older adult was employed or retired. The quality of one’s daily social interactions had a much stronger influence on daily sense of purpose for retirees.

READ THE ABSTRACT
REVERSING AGEISM IN STUDENTS OF MENTAL HEALTH
Examining Ageist Attitudes in Future Providers of Mental Health Services
Lehigh University, Education and Human Services: Grace I. L. Caskie, PhD, Abigail R. Voelkner, MEd
University of Wisconsin Medical Foundation: Shannon L. Patterson, PhD

FOCUS: Can senior living providers take an active role in improving ageist attitudes in students of mental health?

This study focused on ageist attitudes and anxiety about aging in future mental health professionals—feelings that could influence their eventual clinical work with older adults. Therefore, creating and facilitating innovative opportunities for senior living residents to have high-quality interactions with trainees may be pivotal in providing excellent mental health care services to this population. These high-quality interactions would also support person-centered care.

The researchers recruited 488 graduate-level trainees in mental health programs, who completed all study measures via an online survey. All trainees read a clinical case vignette about an older woman with depressive symptoms: One group of study participants read about a woman who was described as being in good health, and a second group read about a woman described as being in poor health. Trainees completed several measures, including seven ratings related to clinical work with the potential older adult client, the Fraboni Scale of Ageism, the Anxiety about Aging Scale, and demographics.

FINDINGS
Trainees reading the clinical case vignette depicting an older woman in poor health rated this client as less able to develop an effective therapeutic relationship, less appropriate for therapy, and less open to treatment recommendations; they rated themselves as less competent and comfortable treating the client, and assigned more blame to the client for her problems, as compared to trainees whose vignette depicted a client in good health. Health-based differences were exacerbated regarding the client’s perceived appropriateness for therapy when trainees had more ageist attitudes, and differences regarding competence and comfort in treating the client were exacerbated when trainees had more aging anxiety.

Partnerships that bring mental health trainees into senior living communities would help trainees encounter positive examples of successful aging.

READ THE ABSTRACT
**TAKING A CLOSER LOOK AT LIFE SATISFACTION**
Evaluating Domains of Satisfaction for Keys to Improving Health & Well-Being

University of British Columbia, Psychology: Julia Nakamura
Harvard T.H. Chan School of Public Health: Scott Delaney, ScD, JD, MPH, Tyler VanderWeele, PhD
University of Virginia, Psychology: Ed Diener, PhD (deceased)
University of British Columbia, Psychology: Eric Kim, PhD

**CATEGORY:** AGING AND WELLNESS

**FOCUS:** Can we support residents’ wellness by addressing specific aspects of their life satisfaction?

Because most previous studies have assessed satisfaction with one’s life as a whole, we know little about whether specific domains of life satisfaction, such as satisfaction with living conditions, daily life, and leisure activities, might be responsible for longitudinally driving better health and well-being outcomes.

The researchers used data from 13,752 participants from the Health and Retirement Study, a national, diverse, and longitudinal sample of people aged 50 and better, to evaluate whether positive changes in seven domains of life satisfaction were associated with 35 subsequent physical, behavioral, and psychosocial health and well-being outcomes four years later. The domains measured satisfaction with:

1. living conditions
2. city or town
3. non-work (e.g., daily life and leisure activities)
4. family life
5. financial situation
6. total household income
7. health

**FINDINGS**
Individual domains of life satisfaction were differentially associated with subsequent health and well-being, as some domains have a substantially larger influence than others. Reviewing all psychological well-being/distress outcomes, some domains (satisfaction with non-work activities, family life, financial situation, and income) have generally larger effect sizes than other domains (satisfaction with living conditions and city/town).

This suggests that some domains may contribute more to subsequent psychological well-being than others. For example, if looking to decrease depressive symptoms, increasing a person’s satisfaction with family life might have an effect more than twice as large as the same increase in satisfaction with one’s city/town.

Senior living providers should note that those with the highest satisfaction with their living conditions (as compared to the lowest) had a lower risk of chronic pain, higher self-rated health, a lower risk of depression, lower loneliness, and improvements to several other psychosocial outcomes.

**READ THE ABSTRACT**

**FROM RESEARCH TO REAL LIFE**
Within the senior living industry, aiming to improve specific domains of life satisfaction (including satisfaction with living conditions) may lead to positive changes in health and well-being. Therefore, providers should be aware of specific findings:

- Those who ranked highest in satisfaction with their housing (as compared to the lowest) had a decreased risk of chronic pain, depression, and living without a spouse or partner.
- Higher satisfaction with daily life and leisure activities, financial situation, income, and health were associated with decreased risk of physical functioning limitations.
- When assessing social outcomes, all domains except for health were associated with loneliness, such that participants with higher domain-specific life satisfaction were less lonely four years later. Only one domain was associated with increased social contact: Those with higher satisfaction with family life had more contact with their children.
Food is intimately tied to one’s individual and cultural identity, and thus, can help nursing home residents maintain their sense of self and improve their overall quality of life. However, food can also serve to isolate and alienate, as may be the case when a texture-modified (e.g., soft) diet is required. In order to increase residents’ food intake, long-term care must recognize the other powerful psychoemotional components of food-related activities.

Malnutrition is often a concern for older adults, and risk of malnutrition is magnified for individuals who are prescribed texture-modified diets in order to increase eating safety (e.g., due to poor dentition or swallowing impairments). Texture-modified foods tend to be nutritionally inferior, aesthetically unappealing, and to come in fewer accessible or available options. There is growing recognition of the benefit of more frequent between-meal snacks. However, increasing eating opportunities successfully relies on a number of factors, including food availability, accessibility and safety, and resident preference.

Participants valued snacks, especially as an alternative to the traditional three meals per day. Importantly, the desired snack qualities residents seek varied, and many expressed barriers to getting snacking needs met. Overall, a disconnect between food-related emotional “wants” and physical needs can contribute to malnutrition risk. Texture and flavor enhancements, however, did appear to serve as viable options for increasing residents’ emotional connection to food, as well as improving availability and consumption of accessible snacks.

FINDINGS

Semi-structured interviews were conducted with 10 residents. The first series of interviews was conducted after an eight-week “typical snacks” block, and the second was conducted after a seven-week “enhanced snacks” block (Savorease Therapeutic Foods). Most participants were female (80%), and half had a current dysphagia diagnosis, with 40% currently on a texture-modified diet and 20% having previously been on a texture-modified diet. Nearly all participants were nutritionally at-risk (90%).

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There is growing recognition of the benefit of more frequent between-meal snacks.
2022 BRONZE AWARD RECIPIENTS
Interesting, stimulating, and enjoyable activities should be available to people living with dementia, since physical activity is an essential part of their well-being. So researchers set out to examine how golf might improve the well-being of people with dementia, as well as of their family caregivers. Conducted at a community golf course, the program lasted six weeks and provided weekly three-hour programs to 12 people with dementia who were aging in place in their homes, as well as to five caregivers and three golf course staff members. Participants were recruited through local chapters of the National Dementia Action Alliance.

Data collection included video of golf play, interviews, and standardized questionnaires.

**FINDINGS**

The study findings suggest the well-being benefits of golf lie in promoting experiences of positive emotions in people with dementia, as well as in their caregivers and golf course staff members.

**PLAYING FOR POSITIVE RESULTS**

Offering Golf as an Approach to Wellness for Those with Dementia

University College London, Dementia Research Centre: Paul M. Camic, PhD, FRSP

Based on this research, and several years of researching older adults with and without a type of dementia, the researchers recommend:

1. It can be very beneficial to offer positive, life-enhancing activities that support, gently challenge, and focus on new learning, as opposed to reminiscence.

2. Activities or programs requiring physical and/or cognitive effort can support well-being.

3. Developing opportunities that encourage social engagement can help to reduce isolation, loneliness, and depression among this population.

4. Challenge your own assumptions and unexamined biases as senior living professionals (and as researchers!). An 80-year-old man once told the authors, “Thank you for not assuming all of us want to live in the past and sit around and talk about what once was.” A 71-year-old woman added, “I want to keep learning as long as I keep seeing the sun. Who thought I’d learn golf at my age?”

**READ THE ABSTRACT**

MAKING MOBILITY TESTING ACCESSIBLE
Testing Smartphone Accelerometers for Sit-to-Stand Testing
University of New Hampshire: Dain LaRoche, PhD, Yuwei Song, MS, Momotaz Begum, PhD, Sajay Arthanat, PhD

This study adds sit-to-stand time as another smartphone-obtained parameter of lower-body function directly related to muscle power, which is largely missed by the existing measures. Lower-body power is a key determinant of gait speed, stair-climbing ability, transfer ability, and the capacity to recover from a loss of balance. If parameter this can be monitored routinely and autonomously, it can provide useful data to older individuals, their family and friends, and caregivers.

Mobile devices are already providing metrics on mobility status and gait quality that are known to be related to the fall risk, health status, mortality, and overall vitality of older adults. For example, the iPhone and Apple Watch can provide walking gait parameters, including:

- double support time (increases with aging and impaired ability for single-limb support)
- step length (decreases with age and the decline associated with poor mobility)
- walking speed (often considered the sixth vital sign)
- stair ascent and descent speeds (related to mobility status, balance, and leg power)
- walking asymmetry (associated with lower-limb strength asymmetry, balance, and mobility)
- six-minute walk distance (one of the most validated measures of the mobility and overall function of older adults)
- walking steadiness (associated with fall risk)

Older adults’ lower-extremity strength and power are important predictors of their mobility status, fall risk, and vitality, and can be used to detect changes in health and function. However, serial measurement of lower-extremity strength is complicated by the need for specialized equipment and expertise. Sit-to-stand time is a related clinical test that also requires periodic observation by a clinician to be useful.

The researchers explored the use of the built-in accelerometer in a smartphone to detect sit-to-stand motions, measure the sit-to-stand time, and use it as a surrogate measure of lower-extremity strength and power that can be monitored in older adults who do not have access to direct observation.

Study participants were 20 community-dwelling men and women between the ages of 65 and 89 with a range of lower-extremity physical capacities.

Researchers simultaneously used a force plate and a smartphone accelerometer in multiple sit-to-stand tests of strength, power, and speed.

FINDINGS
Sit-to-stand time measured on the smartphone accelerometer was validated against the proven precise methods, confirming that it is a good surrogate measure for these clinical assessments.

An increasing number of older adults own smartphones or other wearable devices, and this study demonstrates these devices can be used for frequent and serial measurement of leg strength and power unobtrusively in the home, allowing for the potential early detection of declining health, functional status, and vitality.

READ THE ABSTRACT
The COVID-19 pandemic certainly influenced loneliness of older adults and threatened the social connectedness of those living independently in their community. This study considers a critical issue for quality of life: social well-being. Social connectedness in later life has important implications for long-term health, but minimal research has identified possible solutions to helping older people avoid increases in loneliness.

Initial data for this study were collected on a sample of community-dwelling older adults in Tallahassee, Florida, in 2018. Participants were surveyed on their health, well-being, and factors influencing their resilience in the face of challenges. They were surveyed again in October 2020, six months into the pandemic. In this wave of data, the survey included questions about a variety of factors that may shape response to the pandemic, including details about pets.

FINDINGS

The study shows that those who reported that the pandemic had a significant impact on their social lives indicated higher levels of loneliness, but if they walked a dog at least once a day, they did not become lonelier.

The researchers concluded that regular dog-walking can protect individuals from substantial declines in social connectedness, making it a beneficial therapy in relation to loneliness for those who experience significant social setbacks.

The researchers point out that to replicate the effects of this study, three components must be included: an animal, an exercise component, and some social interaction. They evaluated the impact of simply owning a pet, and, separately, of simply taking a regular walk, and did not find the same outcome.

To implement a practice that benefits older adults, consider bringing in therapy pets (or adopting a community dog or two) and having residents either walk a dog or play with the dog, ideally while connecting with others. Simply chatting with others about the dog can fulfill the social component.
TRACING AGEISM PATTERNS OVER TWO CENTURIES OF LANGUAGE
Examining Positive & Negative Trends in Phrases Related to Age
National University of Singapore, Public Policy: Reuben Ng, PhD

For this unique study, the researchers took a long view at perceptions of older adults, specifically examining how perceptions of older adults differ when framed in terms of roles rather than age. The researchers combined the Corpus of Historical American English with the Corpus of Contemporary American English, to create a 600-million-word data set—the largest historical corpus of American English with over 150,000 texts collected from newspapers, magazines, fiction, and nonfiction. They then compiled the top descriptors of age-based terms (e.g., “senior citizen” or “elderly”) and role-based terms (e.g., “grandparent” or “matriarch”) for older adults and rated the terms for stereotypic words and phrases (negative to positive) over 21 decades.

FINDINGS
Analysis of the data revealed that age-based framing showed a significantly higher increase in negativity (15%) compared to role-based framing (4%). The percentage of positive topics associated with role-based framing increased from 71% in the 1800s to 89% in the 1900s, with narratives of affection and wisdom becoming more prevalent. In contrast, the percentage of positive topics for age-based framing decreased from 82% to 38%, with narratives of burden, illness, and death growing more prevalent.

READ THE ABSTRACT
Ng, R., & Indran, N. (2021). Role-Based Framing of Older Adults Linked to Decreased Ageism Over 210 Years: Evidence From a 600-Million-Word Historical Corpus. The Gerontologist, gnab108. https://doi.org/10.1093/geront/gnab108

FROM RESEARCH TO REAL LIFE
Information about residents’ social roles could be made available to professionals in senior living or aging services. This will help to ensure that individuals will not be defined as mere residents or patients.

• Give residents opportunities to talk about the various social roles they’ve played and continue to play.
• Organize programs such as intergenerational show-and-tell sessions, talent shows, etc.—where staff can learn about the roles played by residents as children, siblings, friends, employees, parents, and grandparents.
• Staff could also share about their own experiences in performing these roles to facilitate a mutual exchange of knowledge and wisdom.
The burden of caring for people with dementia falls largely on formal caregivers, who suffer from stress, depression, and anxiety, worsening physical health outcomes, and reduced well-being—all signaling a growing national shortage of formal caregivers. Given evidence that digital therapeutic software (DTx) such as mobile health apps can benefit those with dementia and enhance caregiver well-being, this project seeks to understand existing processes, needs, barriers, and goals for the use of a DTx platform by home care agencies.

A series of focus groups was conducted with home care agency corporate leadership, franchise owners, and caregivers, as well as with informal caregivers of persons living with dementia. This approach allowed for unrestricted idea generation, which guided development of DTx to better enable home care providers to differentiate their dementia care services, involve informal caregivers, improve caregiver well-being, and extend the ability of persons living with dementia to age in place. Using the Technology-Enabled Caregiving in the Home framework, analysis was conducted to identify thematic categories from focus group transcripts.

**FINDINGS**

This study informed key features of a DTx development, allowing for data collection to continuously refine and increase specificity of the algorithmic recommendations based on outcomes. Five overarching themes were identified:

1. technology-related
2. care services
3. data, documentation, and outcomes
4. cost, finance, and resources
5. resources for caregivers

Insights gained will inform an upcoming clinical research study, as well as future development of a DTx platform designed to reduce the burden of caregiving for persons living with dementia, evaluate changes in cognition, preserve functional independence, and promote caregiver engagement between these individuals.

**READ THE ABSTRACT**
SUBMIT FOR THE 2023 INNOVATIVE RESEARCH ON AGING AWARD

Nominations will open in February, with a submission deadline in mid-March 2023. For details, visit matherinstitute.com.

Staffed by a multidisciplinary team of researchers, Mather Institute is an award-winning resource for research and information about wellness, aging, trends in senior living, and successful industry innovations. In order to support senior living communities and others that serve older adults, the Institute shares its cutting-edge research in areas including effective approaches to brain health, ways to enhance resilience, and successful employee wellness programs. Mather Institute is part of Mather, an 80+-year-old not-for-profit organization dedicated to creating Ways to Age Well.SM

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