

UNDERSTANDING THE ROLE OF COMMUNICATION TECHNOLOGY IN FACILITATING SOCIAL CONNECTIVITY AND ADDRESSING LONELINESS

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In the United States, two out of five adults report feelings of loneliness. The involvement of communication technologies presents a promising potential in helping improve social connectivity and address the experience of loneliness. However, the sense of presence (embodiment) users are able to achieve through the technologies can vary depending on their abilities and functions. The present study identified user characteristics associated with an interest to adopt telepresence technologies (e.g., videoconferencing, smart displays, robots) across various levels of embodiment. The data for this study were collected using a Qualtrics survey which was distributed via Amazon Mechanical Turk. The participants recruited for this study were between the ages of 18-78 years old, constituting a total sample size of 384 participants. The data were analyzed using four logistics regression models. The dependent variables aimed to identify participants' interest to adopt telepresence technologies across varying embodiment levels. Across the lifespan older adults were significantly more likely to report lower rates of overall loneliness than young and middle-aged adults. Our findings indicate that those interested in adopting communication technologies with higher levels of embodiment had significantly higher odds of reporting being divorced or widowed (OR=4.12, $p<.05$), reside in a rural community (OR=2.20, $p<.05$), and report higher rates of emotional loneliness (OR=1.20, $p<.05$). Across the four models, there was no significant difference in participants' interest to adopt telepresence technologies. These results suggest that the sense of presence achieved across the various types of communication technologies may help address feelings of loneliness and support healthy aging.

USE OF LONG-TERM CARE DECREASED OVER TIME AMONG THE OLDEST-OLD WITH AND WITHOUT DEMENTIA - A REGISTER-BASED STUDY

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Care policies for older adults emphasize aging-in-place and home care over residential long-term care (LTC). We explore how the use of residential LTC in the last five years of life among people with and without dementia changed between those who died in 2001, 2007, 2013, and 2017 in Finland. Retrospective data drawn from the national health and social care registers include all those who died aged 70+ in 2007, 2013, and 2017, plus a 40% random sample from 2001 (N=128 050). Negative binomial regression analysis was used to estimate the association of dementia with LTC use during the last five years of life (1825 days). The independent variables included dementia, age, marital status, annual income, education, and chronic conditions. In the total study population, the proportion of LTC users and the mean

number of days in LTC increased until 2013, after which it decreased. Changes in LTC use differed between different age groups and by dementia status. Over time, the decrease in round-the-clock LTC use was steep in those aged 90+ with dementia and in people aged 80+ without dementia. The individual factors related to morbidity and sociodemographic factors did not explain these results. The changes in LTC care policy may have contributed to the decrease in LTC use among the oldest. However, according to national statistics, the availability of formal home care has not increased. This development may suggest that the oldest-old and those with dementia – a highly vulnerable group – are left without proper care.

USING DIAGNOSTIC ULTRASOUND TO SUPPORT THE DIAGNOSE SARCOPENIA IN OLDER ADULTS: A SYSTEMATIC REVIEW

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Dual-energy x-ray absorptiometry (DXA) is currently the gold standard for diagnosing loss of muscle mass in older adults (a component of sarcopenia diagnosis). Magnetic resonance imaging (MRI) and computed tomography (CT) have also been used successfully. Due to elevated costs, limited access, exposure to radiation, and increased difficulty of operation, other methods have been explored as alternatives. We reviewed the literature on the use of diagnostic ultrasound to assist in the diagnose sarcopenia in older adults by searching MEDLINE, Embase, and CINAHL using a variation of terms related to “ultrasound”, “sarcopenia”, and “older adults”. We included studies that included older adults over the age of 60. Eighteen studies were included after screening for eligibility and conducting full-text reviews. The most common transducer head frequency utilized in the studies were 5-12 and 8 MHz (three studies each), followed by 5, 6, and 7.5 MHz (two studies each). The most common musculature examined was anterior thigh musculature, followed by muscles of the lower leg, upper extremity, abdominals, and head/neck. Measurements most taken were muscle thickness/cross sectional area (18 studies), followed by muscle echogenicity (9 studies), and pennation angle (3 studies). Ultrasound is a reliable and valid tool to examine muscle thickness to assist in diagnosing sarcopenia. However, echogenicity measures of a muscle were not reliable. Further research is needed with increased sample size and variance amongst subjects to generalize and create normative data. In addition, standardized protocols for the use of ultrasound to assist in the diagnosing sarcopenia need to be established.

VISUALIZING PERSON-CENTERED LONG-TERM CARE: AN EXPLORATORY SCOPING REVIEW AND EVIDENCE MAPPING

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