

Missouri lymphedema symptom assessment tools in original research and review articles. A search of six electronic databases was conducted for articles published within 1998 and 2018 on review and use of the tools which are Lymphedema and Breast Cancer Questionnaire (LBCQ), Melanoma and Lymphedema Questionnaire (MELQ), and Gynecologic Cancer and Lymphedema Questionnaire (GCLQ). In all, 210 articles were retrieved, and 32 full-text articles meeting the inclusion criteria were reviewed. The studies reported a cumulative number of 5,872 study participants. Most manuscripts (70.97%) reported data on breast cancer lymphedema, 19.35% on gynecological cancer lymphedema, 3.23% on breast cancer and melanoma lymphedema, and 6.45% on melanoma. The use of LBCQ was reportedly more than the use of GCLQ and MELQ. Tool reliability ranged from $r = 0.785 - 0.82$ for LBCQ and 0.95 for internal reliability for GCLQ. The tools have been used in many countries including the United States of America. The importance of using valid and reliable quantitative measures in lymphedema symptom assessment across diverse populations and sites cannot be overstated. The tools have been modified and used over the past 20 years in various settings and across languages and cultures.

DEVELOPING A QUESTIONNAIRE TO ASSESS OPINIONS REGARDING THE IMPORTANCE OF BATHING AND WASHING WITHOUT WATER

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Bathing is one of the most performed activities among nurses. Although care recipients experience bathing as an important activity in daily living, nurses often undervalue this care task. We developed a questionnaire to measure nurses' opinions regarding 1) the importance of the bed bath, and 2) a bathing innovation known as Washing Without Water. Construction of the questionnaire items was based on literature and interviews with nursing home residents ($n=8$), their family ($n=5$) and nurses ($n=6$). After items construction, nurses and nursing students ($n=124$) completed the questionnaire to assess the questionnaire's internal consistency (IC) and construct validity. Cronbach's alpha coefficients were analyzed as an indicator for IC and items were deleted if this resulted in improved IC. To analyze the construct validity, a Principal Component Analyses (PCA) with Direct Oblimin Factor rotation was performed. The final scale consists of two subscales. The first subscale measures nurses' opinions about the importance of the bed bath and consists of 12 items. The second subscale consists of 17 items and aims to inventory nurses' opinions about the Washing Without Water innovation. The Cronbach's alpha coefficients are high (.81 for the first and .89 for the second subscale). The PCA results show a one factor loading for both subscales, explaining 33,20% and 37,08% of the variance for the first and second subscale respectively. Results indicate a reliable and valid questionnaire to measure nurses' opinions related to the bed bath, which can support health care institutions in evaluating the bed bathing process.

EVALUATION OF AGILITY AND WALKING ABILITY IN ELDERLY PEOPLE

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An important aspect of independent living in a super-aging society is the achievement of "successful aging" in mind and body. Recent large-scale epidemiological studies found that reduced walking ability significantly affects "extended healthy life expectancy" and "successful aging." In terms of anatomy and physiology, "usual aging" (i.e., the inevitable decrease in walking function due to aging) occurs unless one undertakes daily physical activity. Conversely, aggressive moderate and habitual physical activity may lead to "successful aging" (i.e., maintained and improved walking function). Previous studies revealed that agility and walking ability are related to healthy life expectancy. Thus, we measured agility with a stick response test to investigate its relationship to gait, and determined whether this test could be substituted for a battery test of walking ability. This test has the convenience of shortening measurement time and requiring a wider measurement place than gait evaluation performed by actually walking. Correlation was observed between the rod response test and stride length ($r = 0.60$), walking speed ($r = 0.38$), and walking ratio ($r = 0.34$). Therefore, we propose that the rod response measurement is simpler than a simple walking ability test and can be used as a physical function measurement item that predicts the health and longevity of the elderly.

EXAMINATION OF ADVANCED FUNCTION AND ITS CORRELATES IN A COHORT OF COMMUNITY-DWELLING OLDER ADULTS

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Function in older adults includes multiple domains, from basic to "advanced," but we remain limited in detection of advanced function (engagement in social, leisure, and productive activities). The objective is to describe advanced function and examine relationships with basic function and health outcomes in community-dwelling older adults aged 55-65 years. This is an analysis of existing data from a large, ongoing cohort study, The Wisconsin Registry for Alzheimer's Prevention (WRAP R01 AG027161). We used a 1:1 prospective case-control design to examine whether older adults with lower advanced function (lower functioning group) at wave 3 showed lower IADLs and poorer health outcomes in wave 4, compared to those with higher advanced function (higher functioning group). The lower functioning group had a mean advanced function score of 74.4 (SD = 10.1), compared to 98.7 (SD = 11.1) in the higher functioning group. The mean IADL scores were similar in the

two groups ($p = 0.123$). The lower functioning group had significantly lower self-rated health (mean = 3.52; SD = .79) than higher functioning group (3.70; 0.79) and a significantly lower proportion of individuals with unimpaired, stable cognition (77%) than the higher functioning group (85%). The lower functioning group had higher rates of comorbidities (4.25 vs. 3.96), mortality (4 vs. 1), and depressive symptoms (CES-D: 7.17 vs. 6.09), although results were not significant at $\alpha=0.05$. This study provides a foundation for examining advanced function, which may be an early indicator of poor health outcomes in older adults.

MEASURING HAND FUNCTION IN OLDER ADULTS: THE NEED FOR BETTER ASSESSMENT TOOLS

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Aging is associated with a decline in hand muscle strength, dexterity, and tactile perception, leading to difficulties in activities of daily living and reduced independence (Millan-Calenti et al., 2010). However, current assessments do not adequately capture sensorimotor skills that underlie everyday activities such as dressing and food preparation. This study examined the ability of two novel assessment devices to detect age-related changes in hand force control and tactile pattern discrimination. Sensorimotor function was assessed in 13 healthy older adults (mean age 72.2 +/- 5.5y) and 13 young adults (mean age 20 +/- 1.4y). Maximum grip force (MVC), tactile sensation, and hand dexterity were measured using standard clinical techniques. Novel assessments consisted of submaximal (5-20% MVC) grip force tracking and computer-controlled tactile pattern recognition. Monofilament testing of tactile sensation was normal in the older group. In contrast, both the accuracy and speed associated with identifying tactile patterns was significantly worse in older ($p<0.001$) compared to young adults for both hands. While maximum grip force was similar in both groups, the ability to smoothly produce ($p<0.05$) and maintain ($p<0.02$) low grip force levels was compromised in older adults. Manual dexterity (Grooved Pegboard test) was significantly reduced in the older group ($p<0.001$) regardless of hand. These results indicate that the ability to extract meaningful information from tactile feedback and control low levels of force - aspects of fine hand control associated with activities of daily living - are impaired in older adults and underscore the need for more sensitive measures of hand function.

PHYSICIAN ATTITUDES AND CONFIDENCE TOWARD DEMENTIA CAPABILITY: SCREENING, DIAGNOSES, AND REFERRALS

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The MaineHealth Alzheimer's Disease Partnership is working to improve integration between the healthcare system and community partners through training and a referral network. Primary care providers are often the first to assess cognitively impaired patients, so it is important to understand their attitudes and confidence in dealing with dementia. The objective of this study is to determine

barriers to care and evaluate healthcare providers' attitudes towards their dementia capability, which includes screening for cognitive impairment, disclosing diagnoses, and making referrals to community-based organizations or specialists. A 27-item survey was developed and sent to 474 providers from MaineHealth practices via email. Fifty-three providers responded to the survey. Five healthcare professionals also took part in a focus group; looking more specifically at challenges encountered throughout the dementia care system. This poster will present the findings from the survey and focus group. There was strong agreement that much can be done to improve the quality of life for patients with dementia (86% agreed/strongly agreed) and that screening all patients over age 65 is important (85% agreed/strongly agreed). Confidence levels in ability to diagnose dementia, provide memory loss information, and refer patients to specialists were significantly associated with training ($p<.05$). The majority of providers identified barriers to cognitive screening and referring patients to community-based organizations, showing that improvements are needed at the system level to remove these barriers. Overall, the results suggest that dementia specific training can improve confidence in care and allow physicians to provide more information about memory loss to patients.

SESSION 2894 (POSTER)

PAIN: SYMPTOMS AND MANAGEMENT

ATTITUDES OF OLDER ADULTS WITH CHRONIC MUSCULOSKELETAL PAIN TOWARD VIRTUAL REALITY

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Older adults are especially susceptible to chronic musculoskeletal (MSK) pain. Pharmacological treatment often provides inadequate relief and overuse can lead to adverse events. Preliminary research has demonstrated the effectiveness of virtual reality (VR) distraction therapy for chronic pain. Understanding attitudes of older adults towards VR distraction therapy will help develop and optimize this therapy for this population. Therefore, the purpose of this study is to explore the attitudes and treatment acceptability towards the use of immersive VR distraction therapy of older adults suffering from chronic MSK pain. This descriptive, exploratory study used mixed methods. Data collection consisted of a consent process, eligibility screening, survey completion, 2 VR simulations (passive and active) lasting 10-minutes each, and either a focus group or interview. Survey data was used to measure: pain intensity and interference, pain catastrophizing, treatment acceptability, usability, and side effects. A total of 21 older adults completed the study. Treatment acceptability was high with an average score of 32.5 out of 40. However, average usability scores (62.9 out of 100) indicated a need for system improvements. Few participants (14%) experienced moderate to severe side effects. The following themes were identified: 1) VR is an enjoyable distraction; 2) Perceived effectiveness depends on chronic pain experience; 3) VR simulation experiences should be individualized; 4) Design considerations to improve usability