

### EFFECTIVENESS OF PEER-BASED REMINDERS TO SUSTAIN CARE PROVIDER PRACTICE CHANGE: A CLUSTER RCT

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Increasing demand for residential aged care has strained already tight healthcare budgets. Identifying novel strategies to optimize best-practice use in these settings may improve quality and efficiency of care and reduce caregiver burden. The purpose of this study was to assess the effect of peer-based and paper-based reminders targeting direct care providers to sustain a mobility innovation with older adults in residential care facilities. START (Sustaining Transfers through Affordable Research Translation) was a 23-site cluster-randomized controlled trial that took place in Alberta, Canada. A mobility intervention was introduced to 23 study sites; between March 2014 and April 2015, 11 sites were randomly assigned to receive paper reminders and a peer reminder intervention either monthly (n=5) or quarterly (n=6) for 1 year. The remaining 12 sites were randomly assigned to receive paper-reminders only either monthly (n=6) or quarterly (n=6) for 1 year. Direct care staff daily documented the uptake of the mobility intervention for 1 year in all 23 sites. Uptake data were analyzed using linear mixed models that mirrored the clustered repeated-measures factorial trial design. A statistically significant improvement was detected in sustainability of the mobility intervention in the sites receiving peer and paper reminder interventions, compared with sites receiving paper-only interventions ( $p = 0.007$ ). No significant difference was detected in sustainability between monthly or quarterly implementation of either the paper or peer intervention ( $p = 0.72$ ). This peer reminder intervention is an effective knowledge translation strategy to change and sustain care provider behaviour in residential care.

### CHANGES IN OXYTOCIN AND MUTUALITY IN DIRECT CARE STAFF USING A CALMING INTERVENTION

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Behavioral symptoms of dementia (BSDs) such as restlessness, agitation, aggressive behavior, yelling, and nighttime awakenings, exhibited by more than 85% of nursing home residents, result in distress for the person with dementia (PWD) and fear and avoidance in caregivers. Teaching direct care staff (DCS) calming interventions (CALM), specifically therapeutic touch and the use of therapeutic communication skills, can potentially promote social “bonding” between residents and staff, strengthen relationships, decrease staff burnout and turnover and improve the quality of care. This pilot study tested the effect of the use of the CALM protocol by DCS on DCS urine oxytocin and mutuality. Seven of the 10 DCS who began completed the study. DCS training was completed over 4 months. Four of 7 (57%) showed an increase in urine oxytocin (30 – 60 min post treatment), and 5 of 7 (71%) showed an increase in mutuality compared to baseline, indicating increased social bonding. Direct care staff interview data supported positive experiences of relaxation during a resident treatment for the DCS and a reported decrease in BSD for the residents after treatment.

This pilot study provides beginning evidence for the effect of CALM on the DCS, increasing bonding and mutuality with persons with dementia, thus potentially minimizing stress and burnout in DCS as well as improving the quality of resident care.

### DEMYSTIFY ELDERLY: MATERIAL, INSTRUMENTAL, EMOTIONAL AND COGNITIVE ASSISTANT IN AGING

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Aging perception seems to be related with dependence, illness, disability and loss of capacity for help others. This perception and the notable increased longevity population implies social and family dynamics that need to be elucidate. Even with aging involves changes like higher prevalence of chronic and degenerative diseases that may affect the independence of elderly population, it appears incoherent to related longevity with disability and dependence. In order to analyze the kinds of help or assistant (material, instrumental, emotional and cognitive) that give and receive elderly people, we recruit data from 2000 in Bogota (Colombia) citizens, taken from *Encuesta Salud Bienestar y Envejecimiento SABE*. Statistical analyzes were carried out. Lambda coefficient (symmetric) indicate an absence relationship between the different types of help and age, gender, schooling and social status; demonstrating that social concepts about the growing need of aid are wrong.

### LOW BACK PAIN RISK AMONG OLDER TURKISH ADULTS

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**Background and Aims:** Low back pain is well documented to be an extremely common health problem. The aim of this study was to evaluate the low back pain risk among older Turkish adults.

**Methods:** Five hundred fifty six elderly people (279 females; 277 males; mean age:  $71.45 \pm 5.99$  yr.) included the study. The pain intensity was measured with Visual Analog Scale (VAS). The risk of low back pain was evaluated with low back pain risk scale.

**Results:** The mean pain intensity was  $4.43 \pm 1.98$  cm. Low back pain rate was found as 60.4% among the participants. While 36% of the sample were found as potential, the 34.2% of the participants were found as risky.

**Conclusion:** The findings indicate that mostly older Turkish adults are at risk in terms of low back pain. That's why older adults should be evaluated about a chronic low back pain to improve their quality of life.

### GERIATRIC HEALTH SCREENING: AN INTERPROFESSIONAL EDUCATION OPPORTUNITY

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The Institute of Medicine, among other organizations, has established interprofessional education (IPE) as a goal for all health professions. Most academic accrediting agencies are now requiring activity in this area. Programs located

in largely rural areas without an academic medical center may have more difficulty in achieving IPE for their students.

The Montana Geriatric Workforce Enhancement Program at the University of Montana provides interdisciplinary student training through geriatric health screening. Pharmacy, nursing, medicine, physical therapy, social work, and speech pathology students from four Montana academic institutions participate. In a typical year, approximately 65 pharmacy students, 40 physical therapy students, 20 nursing students, 30 social work students, and varying numbers of students from other disciplines are involved in over 50 screening events held throughout the state.

Under faculty supervision, teams of students provide screenings for older individuals in rural communities, including counseling on the results and follow up of abnormal values. Screenings for lipids, hemoglobin A1c, bone density, blood pressure, hepatitis C, balance testing and fall risk assessment, caregiver stress, cognition and depression are provided. Barriers to participation include varying formats and schedules for clinical training, requirements for appropriate supervision of students and identification of community referral resources. Approaches utilized by pharmacy, two different nursing programs, physical therapy, social work, speech pathology, and medicine will be described and compared. Evaluation results from surveys of faculty and students will be included.

#### AGE-RELATED EAR ASYMMETRIES IN THE ASCENDING AUDITORY PATHWAYS EXPLAIN A BIGGER RIGHT EAR ADVANTAGE

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Existing evidence suggests that the left-ear deficit exhibited by older adults in dichotic listening tasks using linguistic stimuli may be explained by either age-related declines in the inter-hemispheric transfer through the corpus callosum or age-related declines in the right hemisphere. Little is known about the possible effect of ear asymmetries at the peripheral level that may contribute to the right-ear advantage (REA) observed in older adults for dichotic listening tasks. This study aims to determine if an age-related asymmetry in the peripheral auditory system is observed, and if so, if it correlates with an increased REA for dichotic listening tasks in older adults. In this PhD research project, a number of participants aged between 60 and 79 years with mild to moderate age-related hearing loss will be selected. Pure-tone thresholds, distortion product otoacoustic emissions with and without contralateral stimulation and electrophysiological techniques (e.g. click-ABR and complex-ABR) will be used to investigate the peripheral auditory function. Binaural integration will be measured with single, double and triple dichotic digit and single dichotic syllable tests. We hypothesize that age-related ear asymmetries in the peripheral auditory pathways are associated with an increased REA observed in older adults for linguistic dichotic listening tasks. In this presentation the methodology and preliminary results will be addressed.

#### RELATION BETWEEN GLYCEMIC CONTROL WITH DEPRESSION, MCI, AND DEMENTIA IN ELDERLY WITH TYPE 2 DIABETES

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Introduction: 26% of elderly people have diabetes mellitus and it will increase in the coming decades. Type 2 Diabetes Mellitus in the elderly is a risk factor for depression, cognitive impairment and dementia.

Methods: Observational, descriptive, longitudinal, retrospective study; 54 files from diabetic patients, from the Geriatrics Service, University Hospital in Monterrey, México; from January to June 2016. Divided in groups: Without cognitive impairment, with mild cognitive impairment (MCI) or dementia: Alzheimer (AD), Vascular (VD) and Mixed (MD) and with or without depression.

Results: mean age 76 ( $\pm 7$ ) years of age. The glycated hemoglobin (HbA1c) mean results in the group without cognitive impairment was 8.0% $\pm 7$ , VD 6.6% ( $\pm 0.9$ ), AD 6.4% ( $\pm 0.4$ ), MD 6.9% ( $\pm 0.5$ ), MCI 8.6% ( $\pm 2$ ); without depression 7.45% ( $\pm 1$ ) and with depression 7.2% ( $\pm 1$ ). The mean fasting glucose levels in patient without cognitive impairment were 136mg/dl ( $\pm 38$ ); VD 150mg/dl ( $\pm 27$ ), AD 142mg/dl ( $\pm 45$ ) and MCI 146mg/dl ( $\pm 39$ ), the group without depression showed 133mg/d ( $\pm 40$ ) and with depression 148mg/dl ( $\pm 35$ ). VD had low density lipoprotein (LDL) mean of 95.3mg/dl (AD 121mg/dl and MD 111mg/dl). Significant statistical difference was observed in depression having higher BMI than other groups ( $p$ : .01). There is a statistical tendency in the glycemic control in dementia ( $p$ : .01).

Conclusion: There is a tendency of greater glycemic control in MCI, dementia and depression groups. LDL levels in VD group meet the therapeutic goals unlike other subgroups of dementia. A high prevalence of obesity (42%), depression (51%) and both MCI and dementia (66%) in our diabetic population confirms the importance of geriatric assessment.

#### SESSION 4455 (POSTER)

##### CAREGIVING

##### SUPPORTIVE SUPPORT BROKERS: FAMILY CAREGIVERS' PERCEPTIONS

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The "support broker" (also called "coach" or "counselor") is an essential element of participant directed (PD) programs. The primary function of the support broker is to help participants develop the skills to self-direct. This study explored caregiver perceptions of characteristics of effective support brokers. Family caregivers ( $n=53$ ) with a range of developmental, physical, and aging-related disabilities enrolled in PD programs were interviewed (age 34–78, M