



the Center Report

Faculty Present Research at GSA

Over 80 papers, posters, or other presentations

were made by Duke faculty at the Annual Scientific Meeting in San Diego, CA, November 14-18, 2012.

A. Aiken-Morgan and K.E. Whitfield presented **PHYSICAL ACTIVITY AND COGNITION IN OLDER AFRICAN AMERICANS**. They concluded that physical activity is associated with better cognitive status in this sample of older African Americans, which has implications for physical and cognitive health disparities.

I. Akushevich, J. Kravchenko, S.V. Ukraintseva, K.G. Arbeeve, A.I. Yashin presented **MUTUAL DEPENDENCE OF RISKS OF CANCER AND CHRONIC NON-CANCER DISEASES: MEDICARE-BASED ANALYSIS**. They concluded that there exists a mutual dependence between chronic diseases in older adults. Being black and being male affected the risk of certain subsequent diseases and exceeded respective hazard ratios in the general population.

I. Akushevich, J. Kravchenko, H. Whitson, H.J. Cohen, S.V. Ukraintseva, K.G. Arbeeve, A.I. Yashin presented **MEDICARE-BASED MULTIMORBIDITY INDEX FOR PROJECTING MORBIDITY AND MORTALITY AMONG OLDER ADULTS IN THE U.S.** They concluded that the novel multimorbidity index can be used to project morbidity and survival trends among older adults in US. It makes new advances in planning health services and medical



expenditures.

M. Altpeter, L.P. Gwyther, S. Kennedy, K. Derence, T. Patterson presented **CONDUCTING A MID-COURSE ASSESSMENT OF THE NORTH CAROLINA REACH INTERVENTION: LESSONS LEARNED**. They concluded that the nature of the mixed method process allowed the interventionists to thoroughly assess program satisfaction, and areas of concern.

E.J. Amella, M. Madisetti, C.M. Spencer, V.L. Durkalski, M.B. Aselage, J. Zapka presented **SYSTEM LEVEL CHALLENGES TO CONDUCTING A RCT OF HAND FEEDING VS. PEG TUBE FEEDING IN NURSING HOMES**. This survey demonstrates the difficulty in accessing the decision-makers responsible for approving RCTs in NHs, the lack of structure to vet RCTs and how attitudes toward research and corporate culture challenge getting real-world answers for critical clinical and ethical issues.

K.G. Arbeeve, I. Akushevich, A. Kulminski, S.V. Ukraintseva, L. Arbeeve, I. Culminskaya,

D. Wu, A.I. Yashin presented a paper on **EVALUATING EFFECTS OF GENES AND AGE TRAJECTORIES OF PHYSIOLOGICAL VARIABLES ON MORTALITY AND MORBIDITY RISKS: APPLICATION OF GENETIC STOCHASTIC PROCESS MODEL**. They concluded that differences in these characteristics and associated aging-related processes may contribute to the observed differential effects of alleles on mortality and morbidity risks.

M.B. Aselage, E.J. Amella, J. Zapka, M. Mueller, C. Beck presented a paper on **PROCESS FOR RECRUITING PERSONS WITH LATESTAGE DEMENTIA FOR NURSING HOME RESEARCH**. They concluded that information related to specific approaches and process information about the consent process being used with PWD in the nursing home is much needed.

B.J. Ayotte, J.C. Allaire, K.E. Whitfield presented **COGNITIVE FUNCTIONING AMONG OLDER AFRICAN AMERICAN ADULTS: THE ROLES OF PROVIDING AND RECEIVING SOCIAL**



Advances in Alzheimer’s Research*

T In July, 2012, researchers from across the globe convened in Vancouver, Canada at the Alzheimer’s Association International Conference (AAIC) to share the latest research findings in the race to solve the medical challenges of Alzheimer’s disease (AD). Progress was announced in three areas: biomarkers, experimental drug treatments, and approaches to prevention.

Biomarkers. These are changes in the body or brain that give clues about how complex diseases, like AD, develop. One study demonstrated that changes in cerebrospinal fluid (CSF) appeared 15 to 25 years before symptom onset of cognitive decline. Also changes in magnetic resonance imaging (MRI) and on PET scans began to appear 10-15 years before onset.

Treatment. There was encouraging work reported on potential therapies, some aimed at directly stopping amyloid accumulation (which is thought to be a hallmark of AD), while others are targeting mechanisms that precede the presence of amyloid. One study found that intravenous immunoglobulin, which is believed to bind to beta-amyloid and remove it from the brain, prevented disease progression for 3 years.

Prevention. A number of prevention studies are planning to launch in 2013:

- Two studies will be conducted with younger people who come from unique families that carry rare forms of genes that cause early onset AD.
- Another study will examine treatments in individuals who show increased amyloid in their brains.
- Duke will launch a new study to delay the onset of AD symptoms using a non-amyloid approach. This experimental drug trial will involve over 5000 individuals who are cognitively normal, and have varying levels of genetic risk factors for AD.

Summary. The race is on to develop effective therapies by 2025, a goal set by the National Alzheimer’s Project Act enacted by Congress in January 2011.

*Based on “Research Advances” by Kathleen Welsh-Bohmer and Brenda Plassman, *The Caregiver*, Vol. 31, fall 2012, pp. 3-5. ■

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SERVICE AWARDS CELEBRATED

In October, 2012, we celebrated the long-time service of nine members of our faculty and staff. The following were given service awards for their years of service:

Monica Harris	25 Years	Viviana	
Diane Parham	25 Years	Cantillana-Riquelme	10 Years
Heidi White	20 Years	Tim Koves	10 Years
Susanne Harris	20 Years	Andy Shiloh	10 Years
Kimberly Johnson	15 Years	Mamata Yanamadala	5 Years

Congratulations and thanks for your years of service!



VA Transitional Care (TLC) Program

A

lthough only about 13% of the U.S. population is aged 65 years, people in this age group account for a disproportionate amount of hospital discharges. The transition from hospital to home is challenging for older adults as many have complex medical conditions. According to Medicare data, 1 in 5 older adults will be rehospitalized within 30 days of discharge. A priority for the veterans Health Administration, is to develop alternative services to prevent institutional extended care, including post-acute care readmissions, for older veterans.

In July 2010, the Durham veterans Affairs Medical Center (DVAMC) Geriatrics Research, Education, and Clinical Center launched the TLC program as a clinical demonstration program with funding coming from the Office of Geriatrics and Extended Care. The TLC is led by nurse practitioners (NP) with a physician, an occupational therapist (OT) and a social worker (SW) for expanded access to additional services. The primary goal of the TLC was to reduce the rate of rehospitalization and Emergency Department (ED) visits of older veterans after their hospital discharge. The TLC also provides teaching and support to informal caregivers. Therefore, as secondary outcomes, the program aimed to reduce caregiver burden and improve preparedness in caregiving and care satisfaction.

Eligibility criteria for TLC are aged ≥ 55 years, live within 35 miles of the DVAMC, will be discharged home, are not enrolled in hospice, and will benefit from close medical surveillance after discharge as determined by inpatient providers. If



Veteran is eligible, the TLC NP conducts a hospital visit to assess for home care needs. The TLC then follows the veterans and caregivers at home up to approximately 30 days of hospital discharge. The TLC NP provides medical care, medication reconciliation and management as well as health care education. The TLC NP also serves as a communication link to Veteran's VA primary care provider (PCP). The TLC OT evaluates the home environment for safety and need for equipment or modifications. The TLC SW assists with access to VA and community resources by providing referrals as needed. On discharge from TLC, a summary of care is provided to the Veteran's Primary Care Physician.

From program inception through September 2012, a total of 216 veterans have been followed by the TLC team. Thirty-day rehospitalization rate for the TLC group was 15%; and 19% for the non-TLC group. However, ED visits in the TLC group were not reduced. There was a 14% increase in Veteran satisfaction and a 13% increase in caregiver satisfaction towards VA care. Caregiver preparedness increased by about 6% using Archbold and Stewart's Preparedness for Caregiving Scale, and caregiver burden decreased by 14% on the Zarit Caregiver Burden Assessment, Short form. Beginning October 2012, TLC has been sustained as a standing service for hospital to home transitional care at the DVAMC. ■



New Study Strives to Improve Function in Older Adults with Obesity-Related Disability

Functional impairment may be one of the most dreaded obesity-related complications faced by future cohorts of older adults. It is well recognized that obesity accelerates chronic diseases like type 2 diabetes and cardiovascular disease. Less well known is the fact that excessive body weight also leads to pronounced functional disability. While it might seem that a weight loss intervention should be the logical response to combat obesity in the aging population, in fact, many concerns surround this issue.

One of the most important concerns is that during weight loss, there is a reduction of not only fat mass but of lean muscle mass as well. This bodes poorly for function in older adults, many of whom are already experiencing loss of muscle mass due to age-related sarcopenia. Recently, studies of weight loss interventions in older adults have begun to show success using exercise to off-set the loss of muscle. However, this is not an option to many older obese older adults who are not physically able to exercise.

A new study being conducted in the Nutrition Laboratory at the Center for Aging is exploring weight loss interventions that have the potential to achieve a safe pattern of weight loss in this population without incurring clinically important losses of muscle mass.

Dr. Connie Bales and the Nutrition lab team are studying the use of high quality protein supplements as a means of protecting muscle during weight loss. The study is enrolling adults aged

60 years and older who are obese (have a BMI of 30 kg/m² or greater) and who are mildly to moderately functionally impaired due to their body weight.

Volunteers who qualify for the 6-month study will be randomized into one of two arms, namely normal or high protein, and all will receive a 10% weight loss intervention. They must live within driving range of Duke University and be willing to eat meat as a protein supplement.

All participants will receive in-depth individual and weight loss counseling and participate in functional testing to see if their abilities improve with weight loss. If you or someone you know may be interested in knowing more about study enrollment, please contact Project Coordinator Christine Ocampo at 919-660-7507 and ask for information about the MEASUR-UP study. ■



Aselage & Yap Awarded Hartford Nursing Fellowship

Melisa Aselage, PhD, and Tracey Yap, PhD, have been awarded the Claire M. Fagin Fellowships from the National Hartford Center of Gerontological Nursing Excellence to support their postdoctoral research training and career development at the Duke University School of Nursing. As such they will each receive up to \$120,000 in grants.



Melissa Aselage, PhD

Aselage, who joined the School of Nursing in July, 2011, earned a BSN and an MSN at the University of North Carolina-Wilmington School of Nursing. She completed her PhD in nursing at the Medical University of South Carolina College of Nursing in 2011. She developed a series of nine modules in podcast format to deliver education in geriatric health care to nursing students.



Tracey Yap, PhD

Yap came to the School of Nursing in August, 2011, from the University of Cincinnati College of Nursing, where she was assistant professor of nursing at the Education Research Center. She completed her PhD at the University of Cincinnati, with a dissertation focused on a tailored behavioral intervention to increase intentional physical activity among workers in manufacturing settings. She has developed a cost-effective, nurse-led intervention to reduce incidence and prevalence of pressure ulcers in long-term care facilities by increasing resident mobility using musical cues. ■



Mood and Food Use

By Martha E. Payne, PhD

To many of us, there is an important link between what we eat and how we feel. Perhaps we snack when we are feeling down, or maybe we feel happier after having a bar of chocolate. But, what about mental disorders such as depression—is there a relationship of these conditions with our diet? Recent research indeed shows that nutrition may have an important role in the development and occurrence of depression.

Depression is both a serious and common mental disorder, and is a leading cause of burden to individuals, families and society. We have known for many years that people with depression eat differently, but this was thought to be merely a symptom of depression. Recent studies, however, indicate that the foods we consume may actually affect our risk of developing depression. In addition, changes in diet that are observed with depression have important implications for overall health.

Fruits and vegetables are important indicators of dietary quality as they have been associated with lower risk of cardiovascular disease and other conditions. We recently examined fruit and vegetable consumption in a group of older adults who were participating in a study of late-life depression. This study, published in the December issue of the *Journal of the Academy of Nutrition and Dietetics*, found that older adults with depression ate fewer fruits and vegetables than non-depressed participants. This difference is important because people with depression are at higher risk for cardiovascular and cerebrovascular diseases. Lower intakes of fruits and vegetables may put depressed individuals at even higher risk for these detrimental health outcomes.

Antioxidants are important components of fruits and vegetables, and are believed to promote health by preventing oxidative damage. Antioxidants may be especially critical for depression because depressed individuals have elevated oxidative stress and oxidative damage. Our study, in addition to showing lower consumption of fruits and vegetables, found that depressed people had lower intakes of two antioxidants: vitamin C and beta-cryptoxanthin. One important distinction made in this study was to separate out the influence of naturally-occurring antioxidants, such as those found in fruits, vegetables and whole grains, from antioxidants found



Martha E. Payne, PhD

in dietary supplements. We found no beneficial effects of antioxidants from dietary supplements, while higher intakes of naturally-occurring antioxidants (including food sources of vitamin C) were associated with lower likelihood of depression.

Although our study of depression and the consumption of fruits, vegetables and antioxidants could not determine which came first – the depression or changes in diet – other studies have shown that higher intakes of fruits and vegetables can actually lower one's risk of developing depression.

An important observation from our study was that very few of the participants — even those without depression — consumed the recommended intake of fruits and vegetables. This is consistent with other studies. Only 11% of North Carolinians consume 5 or more fruits and vegetables each day. Most of us would benefit from adding a few more fruits and vegetables to our diet — with the goal of *filling half of our plates with fruits and vegetables at each meal.* ■



In The News

An article by Eric Nagourney in the September 20 New York Times titled, “Why can’t I remember what this week’s question is?” quotes Doraiswamy as saying “If I compare a 50-year-old CEO with a 20-year-old college student, I definitely see differences.” Doraiswamy is head of the Division of Biological Psychiatry at the Duke University School of Medicine. The differences, he says, would probably be “very small.” But while scientists once thought cognitive decline did not begin until the 50s or 60s, some now believe there may be some leveling off in the late 20s and 30s.

It’s not just that baby boomers tend to have poorer reaction times on tests than younger people do. Far more than younger people, they cannot even count on the same performance from week to week or even day to day, Doraiswamy said. It’s like the car that starts right up on an August evening but might not turn over for a while on a February morning — only this one might be a bit iffy in the summer, too.

Some brain skills actually improve with age, including general knowledge and reasoning. But others, often those involving short-term memory, decline. These include spatial ability, mental speed, and the ability to spot differences and similarities.

Why is this happening? Doraiswamy, a co-author of The Alzheimer’s Action Plan, says researchers have identified physical changes in the brain that most likely play a role. Among them: the beginning of shrinkage in the frontal and temporal lobes, the loss of nerve fiber coating; and a decrease in the neurotransmitter acetylcholine.



Murali Doraiswamy, MD

And that is just natural aging. Stress and illness can also take a toll on memory. About a quarter of people in the baby-boom years might show signs of small-vessel disease, in which cerebral arteries become narrower.

The brain is not without its tricks, however. Researchers have found that older people are more likely to use both sides of their brain to perform some tasks than younger people are.

Boomers should not be overly concerned if they notice a few memory glitches, especially when it comes to things like recalling proper names, which are often the first to slip away. But if the problem keeps getting worse, or if you forget things for good or cannot summon up basic facts even when given prompts, it may be time to seek help. ■



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SUPPORT. Results discuss the importance of considering the health and social context of older adults when examining cognitive ability.

D. Bailey, A. Cooper, M. Luce, K. Weinfurt, M. Kazer presented a paper on **ACTIVE SURVEILLANCE, PHYSICIAN PARTNERED MONITORING OR WATCHFUL WAITING: VARIATION IN LABEL EFFECT OF MONITORING PROSTATE CANCER.** They discussed the implications of their findings for further research and clinical practice.

D. Bailey, and R.A. Anderson presented **ENHANCING SELF-MANAGEMENT: THE IMPORTANCE OF PATIENT/PROVIDER INTERACTIONS.** The presentation described the Adaptive Leadership model to examine provider interactions with patients and their potential to influence self-management of symptoms.

A.S. Beeber, L.W. Cohen, S. Zimmerman, D.A. Reed, L.P. Gwyther, P.D. Sloane presented **HOW EQUAL IS THE BURDEN? CHARACTERISTICS AND ATTITUDES OF DIRECT CARE AND ADMINISTRATIVE STAFF IN ASSISTED LIVING.** They concluded that residential care/assisted living staffing is of a hierarchical nature, and may benefit from attention to the burden and frustration experienced by direct care workers.

S. Carmasin, B.T. Mast, J.C. Altaire, K.E. Whitfield presented **VASCULAR BURDEN, DEPRESSION, AND COGNITIVE DECLINE AMONG AFRICAN-AMERICAN OLDER ADULTS.** They concluded that vascular burden is a useful predictor of future depression and cognitive decline in this population.

D.C. Carr and L. Manning presented **RESEARCH, EDUCATION, AND PRACTICE: A POSTDOCTORAL APPROACH.** They discussed the purpose and value of postdoctoral training programs in providing a critical opportunity to train scholars to effectively link research, education, and practice, and to teach the value and purpose of aspiring to making the linkages in order to advance gerontological scholarship, and ways postdoctoral programs can foster these linkages in the future.

D.L. Carthron, T. Ward presented **I CAN'T FALL APART: SUPERWOMAN SCHEMA AMONG DIABETIC AFRICAN-AMERICAN CAREGIVING GRANDMOTHERS.** They concluded that the "Superwoman Schema" may normalize a distress-inducing level of selflessness and powerlessness in this population.

J.Y. Chang, P. Tsai, C. Beck, Y. Kuo, and F. Keefe presented a paper on **EFFECTS OF TAI CHI ON HEALTH OUTCOMES IN ELDERS WITH COGNITIVE IMPAIRMENT AND OSTEOARTHRITIC KNEE.** They concluded that practicing TC can be efficacious in reducing pain and stiffness in elder with osteoarthritic knee and cognitive impairment.

C.L. Clarke, S.G. Lowman, D.A. DeWalt, J. Busby-Whitehead, E. Roberts presented **WILLINGNESS TO ENROLL IN A RCT OF HAND & TUBE FEEDING IN INDIVIDUALS WITH DEMENTIA: CAREGIVER REPORTS.** They concluded caregivers report willingness to enroll an individual with late-stage dementia in this RCT, yet their provider's recommendation was not reported as an influence. Timing of enrollment appears critical.

L.W. Cohen, D.A. Reed, L.P. Gwyther, P.D. Sloane, A.S. Beeber, T.R. Washington, S. Zimmerman presented **FAMILY AND STAFF CAREGIVERS WEIGH IN ON ROLE OF DEMENTIA IN FAMILY INVOLVEMENT AND BURDEN.** They concluded that families of residents with dementia spent more time supporting resident care, including discussing care with staff; attending to resident hygiene, nutrition, and physical function; and helping around the community.

K. Corrazzini was Chair and R.A. Anderson was the discussant of a symposium on **USING AN ADAPTIVE LEADERSHIP FRAMEWORK TO IMPROVE GERIATRIC NURSING CARE.** The symposium used the Adaptive Leadership Framework to describe research being conducted at various system levels, including the provider-patient encounter, team-based transitional care, top level management, and culture change interventions.

K. Corazzini, J. Twersky, H. White, S.R. Hunt, G.T. Buhr, E.S. McConnell, M. Weiner, C. Colon-Emeric presented **IMPLEMENTING CULTURE CHANGE IN NURSING HOMES: AN ADAPTIVE LEADERSHIP FRAMEWORK.** They concluded that nursing staff primarily identified adaptive leadership facilitators, whereas medical care providers and administrators articulated primarily administrative leadership facilitators. All groups identified adaptive challenges as barriers

M.C. Costello, L. Manning, A. Hilliker, S. Ratkiewicz, M. Anastasio, A. Jones, D. DeBrule presented **NARRATING WISDOM: EXPLORING THE LINK BETWEEN GENERALIZED SLOWING AND WISDOM IN AGING.** They concluded that despite generalized slowing in aging, there is little effect regarding the construction and content of the narratives.

J. Day, R.A. Anderson, R. Schulz presented a paper on **PREDICTING COMPASSION FATIGUE FROM PERCEIVED CARE RECIPIENT SUFFERING, EMPATHY, ATTACHMENT, POSITIVE ASPECTS OF CAREGIVING, AND BURDEN AMONG CAREGIVERS OF PERSONS WITH DEMENTIA.** They concluded that higher levels of perceived suffering, empathy, attachment, decreased levels of positive aspects of caregiving, and greater burden did not predict lower levels of compassion.

N. Dmitrieva, C.F. Pieper, M.C. Norton presented a paper on **CONCORDANCE IN VASCULAR HEALTH TRAJECTORIES AMONG MARRIED OLDER ADULT COUPLES.** They concluded that there was minimal evidence for correlated change within couples over time, and no significant effect of spouse gender on level or change in vascular conditions.

J.M. Dzierzewski, M. Marsiske, M.P. Buman, A. Aiken Morgan, P.R. Giacobbi, B.L. Roberts, C.S. McCrae presented **INTENSIVE COGNITIVE PRACTICE IN OLDER ADULTS: GAINS, STRUCTURE, PREDICTORS, AND TRANSFER.** They concluded the cognitive gains associated with practice (i.e., 0.48-1.40 standard score increase) were comparable to or larger than those associated with tutor-guided interventions.

C.M. Germain and H.R. Romero presented a symposium on **PHYSICAL ACTIVITY: A PATHWAY TO COGNITIVE AND FUNCTIONAL HEALTH.** The symposium presented research which examines the protective benefits of physical activity on late life cognition and functional status.

C.M. Germain, B.L. Plassman, M. Kuchibhatla presented **PHYSICAL ACTIVITY AND COGNITIVE IMPAIRMENT NOT DEMENTIA (CIND) IN LATE LIFE.** They concluded that participation in vigorous physical activity is associated with reduced likelihood of being diagnosed as CIND.

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D.T. Gold presented a discussion titled **POSTDOCTORAL FELLOWSHIPS: HOW DO I DECIDE?** She reviewed criteria that should be used in deciding whether postdoctoral training is appropriate, and different opportunities for such training.

M.M. Gorsuch, S. Sanders, and B. Wu presented **REGIONAL VARIATION IN SIGNIFICANT TOOTH LOSS AMONG OLDER ADULTS IN THE U.S. (1999-2010)**. They concluded that 6.4% of the disparity in tooth loss in Appalachia was due to fluoride levels of well water and well water usage.

K.S.Hall chaired a Presidential Symposium on **CHARTING NEW FRONTIERS IN FUNCTION AND AGING: A MULTIDISCIPLINARY PERSPECTIVE**. ESPO members representing the four sections of GSA presented their research examining various facts of function. K.E. Whitfield was the discussant.

S. He, H. Xu, B.A. Craig, P. Stallard, and L.P. Sands presented a paper on **UNMET NEED FOR ADL DISABILITY AND RISK OF UNDESIRED TRANSITIONS AMONG COMMUNITY-LIVING OLDER ADULTS**. They concluded that for older adults with at least one ADL disability, self-reports of unmet need for ADL disability are prognostic of experiencing transitions from their community residences.

S.R. Hunt, K. Corazzini, R.A. Anderson presented **RECONSIDERING HIGH NURSING HOME TURNOVER AS AN EXTREME CONDITION OF COMPLEX SYSTEMS**. They concluded that emergent behaviors, practice conditions and care outcomes met criteria for extreme contexts; technical, command and control leadership by short-tenured managers failed to produce desired outcomes and highlight the need for adaptive leadership strategies.

S.R. Hunt, K. Corazzini, R.A. Anderson presented **CASCADE IATROGENESIS: POSTOPERATIVE RESPIRATORY FAILURE IN HOSPITALIZED OLDER ADULTS**. Conclusions: Nurses reported activities consistent with our conceptual framework (e.g., surveillance, ambulation), yet highlighted others: support, cooperation, judgment, and relationships. Identifying nurses' attempts to recognize emerging conditions and institute preventive measures in the post-operative setting are necessary prerequisites for designing solutions to prevent cascading

complications in hospitalized older adults.

K.E. King presented a paper on **THE GEOGRAPHY OF PERSONALITY**. She concluded that Negative emotions appear to be particularly geographically-dependent.

K.E. King also presented **THE BUILT ENVIRONMENT AND NEIGHBORLY SOCIAL RELATIONS**. She concluded that physical conditions like housing and urban form have implications for social relations and should encourage efforts to develop urban planning policies designed to foster neighborly social relations along with other related beneficial outcomes

A. Kulminski, I. Culminskaya, K.G. Arbeevev, S.V. Ukrainitseva, L. Arbeeveva, A.I. Yashin presented a paper on **GENES, HEALTH, AGING, AND ENVIRONMENT: HOW ARE THEY RELATED?** They concluded that alleles can change their role in cholesterol in the same individuals as they age.

A. Kulminski, I. Culminskaya, K.G. Arbeevev, S.V. Ukrainitseva, L. Arbeeveva, and A.I. Yashin presented **TRADE-OFF IN THE EFFECT OF THE APOLIPOPROTEIN E POLYMORPHISM ON THE AGES AT ONSET OF CVD AND CANCER: THE ROLE OF AGE AND GENDER ACROSS GENERATIONS**. They concluded that the aging-related processes in different generations can readily alter the role of genes in late life in a gender-specific manner suggesting critical role of aging in unraveling genetics of traits in late life.

K. Lee, D. Algase, E.S. McConnell presented **RELATIONSHIP BETWEEN OBSERVABLE EMOTIONAL EXPRESSION AND WANDERING BEHAVIOR OF PEOPLE WITH DEMENTIA**. They concluded that a tailored intervention that addresses both emotional and cognitive functioning may be useful to improve wandering behaviors of PWD.

J. Liang, B. Wu, B.L. Plassman, J.M. Bennett, J. Beck presented a paper on **ORAL HYGIENE AND THE DYNAMICS OF DENTAL CARIES AMONG OLD ADULTS**. They concluded that , baseline oral hygiene was correlated with the levels of dental caries but not their rates of change.

J. Liang, B. Wu, B.L. Plassman, J.M. Bennett, J. Beck presented **TRAJECTORIES OF PERIODONTAL DISEASE AMONG OLDER AMERICANS: DOES SOCIAL STRATIFICATION MATTER?**

They concluded that both attachment loss and pocket depth were significantly related to social stratification, but not to their rates of change.

J.L. Locher, Medicine and C.W. Bales presented a symposium on **NUTRITIONAL RISK AMONG OLDER ADULTS RESIDING IN THE COMMUNITY: HEALTH SERVICE UTILIZATION, MORTALITY, AND INTERVENTIONS**. The symposium presented findings from three separate studies focused on community-dwelling older adults, nutritional risk, and health outcomes.

L. Manning, M. Radina presented a paper on **GOD GRANT ME THE STRENGTH: EXPLORING THE SPIRITUAL CAPITAL OF MOTHERS OF BREAST CANCER SURVIVORS**. They concluded that these mothers of daughters with breast cancer have well-developed spiritual capital, and as a result intentionally rely on their spirituality for managing the stress associated with having a loved one with breast cancer.

L. Manning also presented **DO ONLY THE STRONG SURVIVE? EXPLORING ADVERSITY AND RESILIENCE IN LATER LIFE**. Findings indicate that resilient elders engage in five key behaviors when navigating hardship: adversity confrontation, problem re-framing, resource mapping, self-preservation, and embracing uncertainty.

L.M. Martire, R. Schulz, M.P. Stephens, J. Mogle, F. Keefe presented **MARITAL CLOSENESS, GENDER, AND THE EFFECTS OF DAILY SUFFERING ON SPOUSE MOOD**. They concluded that the effects of patient afternoon pain on spouse mood at the end of day depended on both marital closeness and spouse gender.

L.M. Martire, M.P. Stephens, R. Schulz, J. Mogle, F. Keefe also presented **THE IMPACT OF DAILY ARTHRITIS PAIN ON SPOUSAL SLEEP QUALITY**. They concluded that greater knee pain at the end of the day was associated with spouses' poorer overall sleep quality and feeling less refreshed after sleep, as reported the next morning.

E.S. McConnell, C. Downey, K. Lee, M.V. Spainhour presented **IMPROVING ORAL HYGIENE IN LONG-TERM CARE RESIDENTS: IMPLEMENTATION SCIENCE PERSPECTIVES**. They concluded that Implementation science

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methods combined with quality improvement approaches represents a promising strategy to accelerate translation of evidence-based oral hygiene practices into routine care.

Aiken Morgan, G. Bennett, C.L. Edwards, K.E. Whitfield presented **GENETIC INFLUENCES ON PHYSICAL ACTIVITY IN LATE LIFE**.

They concluded that genetic influences account for a significant amount of variability in physical activity in later life.

C. Mueller, K. Corazzini, R.A. Anderson presented **NURSE STAFFING AND PRACTICE PATTERNS IN NURSING HOMES**. They concluded that adequate ratios of RNs provide a critical threshold without which professional nursing assessment and care planning cannot occur.

C. Mueller, K. Abrahamson, H. Davila, L. Kouns, T. Inui, R.A. Anderson, E. Miech, G. Arling presented **TAKING A CLOSE LOOK AT PAY-FOR-PERFORMANCE PROGRAMS FOR NURSING HOMES**. Case study results highlighted the importance of involving staff from a variety of disciplines and roles, building capacity to enact organizational change and improve quality beyond the domain of the project, and the benefits of QI efforts in terms of public perception of the facility, staff satisfaction, and resident quality of life.

C.M. Ogle, D.C. Rubin, I.C. Siegler presented **THE DEVELOPMENTAL TIMING OF TRAUMA EXPOSURE: A LIFE COURSE PERSPECTIVE**. They concluded that older adults who experienced their worst trauma during childhood exhibited greater PTSD symptom severity, lower happiness, an impaired ability to cope with stress, and less social support compared to older adults who experienced their worst trauma later in life.

M. Peterson, M.C. Morey, C.F. Pieper, A. Abernethy presented **PHYSICAL ACTIVITY, ALLOSTATIC LOAD, AND CANCER: RESULTS FROM THE NHANES STUDY**. They concluded that a diagnosis of cancer, perhaps combined with multiple poor health indicators, may foster a healthier lifestyle.

H.R. Romero presented **COGNITIVE IMPAIRMENT DUE TO VASCULAR DISEASE AMONG MEDICALLY UNDERSERVED OLDER ADULTS**. Many participants did not endorse participation in the health center's walk group or vascular disease support group.

G.D. da Rosa, P. Martin, I.C. Siegler, L. Poon presented **DISTAL AND PROXIMAL PREDICTORS OF COGNITIVE STATUS AMONG CENTENARIANS**. They concluded that two distal predictors and two proximal predictors positively predicted cognitive functioning in centenarians.

K.M. Simpson, C. Colon-Emeric, R.A. Anderson, K.A. Porter, E.S. McConnell, K. Daily, A. Stalzer, S. Pinheiro presented **QUALITATIVE EVALUATION OF A STAFF QUALITY IMPROVEMENT PROGRAM TO REDUCE FALLS IN NURSING HOMES**. They concluded that social constructivist educational approaches may extend learning in nursing homes beyond individual mastery to influence system-level factors that may promote improved falls reductions practices.

L. Snyder, L.P. Gwyther presented **AN OVERVIEW OF TWO MODELS OF COMMUNITY ARTS BASED COLLABORATIONS FOR PERSONS WITH DEMENTIA AND THEIR CARE PARTNERS**. They found ways in which conducting tours for this population can change prevailing stereotypes about the abilities of persons with dementia, contribute to greater awareness, and reduce stigma.

D.K. Thornlow, E. Oddone, R.A. Anderson presented **CASCADE IATROGENESIS: POST-OPERATIVE RESPIRATORY FAILURE IN HOSPITALIZED OLDER ADULTS**. They concluded that identifying nurses' attempts to recognize emerging conditions and institute preventive measures in the postoperative setting are necessary prerequisites for designing solution to prevent cascading complication in hospitalized older adults.

M. Toles, K. Abbott, R.A. Anderson presented **ADAPTIVE LEADERSHIP STRATEGIES INFLUENCE DISCHARGE PLANNING IN AN SNF**. They concluded that improved adaptive leadership strategies are important resources for effective discharge planning in SNFs.

P. Tsai, J.Y. Chang, C. Beck, Y. Kuo, and F. Keefe presented a paper on **A 20-WEEK SUN STYLE TAI CHI FOR OSTEOARTHRITIC KNEE PAIN IN ELDERLY WITH COGNITIVE IMPAIRMENT**.

M.V. Vitiello, S.M. McCurry, M. Von Korff, S.M. Shortreed, B.H. Balderson, L.D. Baker, F. Keefe, B.D. Rybarczyk presented a paper on **COGNITIVE BEHAVIORAL TREATMENT**

OF SLEEP AND PAIN IN OLDER ADULTS WITH INSOMNIA AND OSTEOARTHRITIS: THE LIFESTYLES RCT. They concluded that CBT-PI, an integrated cognitive behavioral approach to sleep disturbance and pain in OA significantly improved sleep and showed a trend towards reduced pain in older adults with higher levels of baseline pain across 9-months relative to standard CBT for pain or an education only control.

L. Vognar, M. Heflin presented a paper on **ELDER ABUSE: INTERDISCIPLINARY APPROACH TO RECOGNITION AND REPORTING**. They concluded that prevention of elder abuse is the responsibility of all healthcare providers and warrants an interdisciplinary approach.

T.R. Washington, S. Zimmerman, J.G. Cagle, L.W. Cohen, A.S. Beeber, D.A. Reed, L.P. Gwyther, P.D. Sloane presented **FIDELITY DECISION-MAKING IN LONG-TERM CARE INTERVENTION RESEARCH: A CASE EXAMPLE**. They concluded with recommendations for fidelity enhancing strategies in long-term care intervention research.

G. Wieland, B. Kinosian, P. Stallard, R. Boland presented **DOES MEDICAID PAY MORE TO A PROGRAM OF ALL INCLUSIVE CARE FOR THE ELDERLY [PACE] THAN FOR FEE-FOR-SERVICE LONG-TERM CARE?** They concluded that PACE's capitation was well under outlays for equivalent patients in alternative care—a substantial savings for Medicaid.

H.E. Whitson, A. Arnold, K. Mukamal, J.R. Kizer, D. Siscovick, S.M. Thielke, C. Hirsch, S. Ziemann presented **ASSOCIATION OF N-CARBOXYMETHYL-LISINE (CML) AND FRAILITY IN OLDER MEN AND WOMEN: THE CARDIOVASCULAR HEALTH STUDY**. They concluded that the sex-based difference in the CML-frailty relationship may reflect different physiologic effects of CML in men and women.

B. Wu chaired a symposium on **AGING AND ORAL HEALTH IN THE U.S.** It presented four papers dealing with oral health disparities among older adults in the U.S.

B. Wu, C. Hybels, J. Liang, B.L. Plassman, L.R. Landerman presented **TREND OF DENTAL CARIES EXPERIENCES: ANALYSIS OF NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES) (1988-1994) AND NHANES**

continues on page 11



Religion May Protect Against Functional Decline*

An analysis by Center Faculty recently published in *The Gerontologist* reported that increased religious attendance appears to have a protective effect against future functional decline.

The analysis used data from the Duke EPESE, a survey of 2,924 adults aged 65+, with self-reported religious involvement and functional status collected at baseline, 3, 6, and 10 years after baseline. The analysis used repeated measures mixed models to predict functional change by religious status at the prior interview.

The results showed that increased religious attendance was associated with fewer Activities of Daily Living (ADL), Instrumental ADL, and mobility limitations 3-4 years later, controlling for demographic, health, and social variables, as well as prior functional status.

However, neither use of religious media nor private religious activities was associated with functional change in controlled analysis. On the other hand, use of religious media was associated with developing more Instrumental ADL limitations and mobility limi-

tations in uncontrolled analysis.

The authors concluded that clinicians may wish to consider the importance of attendance at services in preventing disability for those patients for whom religious involvement is important; and that gerontologists may wish to include religious participation in

their conceptual framework outlining risk factors for functional decline.

**Based on Celia Hybels, Dan Blazer, Linda George, & Harold Koenig, "The Complex Association between Religious Activities and Functional Limitations in Older Adults," The Gerontologist, 32:676-685, (October, 2012). ■*

■ **CONTINUED FROM PAGE 10**

Faculty Present Research at GSA

(1999-2004). They concluded that oral health trends improved over time.

A.I. Yashin, D. Wu, K.G. Arbeev, I. Akushevich, A. Kulminski, P. Stallard, L. Arbeeva, S.V. Ukraintseva presented a paper on **GENETIC AND NON-GENETIC FACTORS IN AGING, HEALTH, AND LIFESPAN: INSIGHTS FROM BIODEMOGRAPHIC ANALYSES**. They concluded that polygenetic score indices affect biodemographic characteristics of aging.

A.I. Yashin, K.G. Arbeev, I. Akushevich, A. Kulminski, P. Stallard, D. Wu, L. Arbeeva, S.V. Ukraintseva presented **CONNECTION BETWEEN INDIVIDUAL AGING AND MORTALITY: THE RESULTS OF BIO-DEMOGRAPHIC ANALYSES**. They concluded that analyses of the Framingham data using such models allows for addressing new research questions about changes developing in the aging human body including changing stress resistance and adaptive capacity.

F. Yong, K.E. Whitfield presented a paper on **GENETICS, PARENT HEALTH, AND EDUCATION: A MISSING LINK BETWEEN EDUCATION AND HEALTH?** They concluded that it is important to consider the contributing factors of educational attainment to better address health variations.

Zeki, Al Hazzouri, E. Vittinghoff, A.L. Byers, K. Covinsky, D.G. Blazer, S. Diem, K. Ensrud, K. Yaffe presented **LONG-TERM DEPRESSIVE SYMPTOM BURDEN AND RISK OF COGNITIVE DECLINE AND DEMENTIA AMONG VERY OLD WOMEN**. They concluded that Long-term depressive symptom burden was associated with cognitive decline and greater

odds of dementia/MCI. Early intervention and careful monitoring may delay cognitive decline and dementia.

S. Zimmerman, L.W. Cohen, D.A. Reed, L.P. Gwyther, A.S. Beeber, P.D. Sloane presented **DIFFERENCES IN STAFF AND FAMILY WELL-BEING IN NURSING HOMES AND ASSISTED LIVING**. They concluded that family and staff well-being are substantially similar across settings, although there is cause to look more closely where there are differences to understand how the setting might better improve well-being.

S. Zimmerman, L.W. Cohen, L.P. Gwyther, D.A. Reed, T.R. Washington, J.G. Cagle, P.D. Sloane, J. Preisser presented **FAMILIES MATTER IN LONG-TERM CARE: RESULTS OF A GROUP RANDOMIZED TRIAL**. They concluded that there is a benefit to increasing family involvement — especially for residents and families — but attention must be paid to the reasons for and ways to alleviate family members' resulting guilt and conflict.

C. Zubritsky, M. Toles, J.H. Van Cleave, L. Schnolis, M.D. Naylor presented **CHANGES IN EMOTIONAL HEALTH AMONG LONGTERM SERVICES AND SUPPORT RECIPIENTS: A KEY HEALTH RELATED QUALITY OF LIFE DOMAIN**. They concluded that significant independent predictors of lower overall mental health include increased physical and depressive symptoms, greater cognitive impairment, being younger, reporting less emotional/informational support, and receiving long-term services and support in assisted living facilities. ■



Coming Events

February 28–March 3, 2013

39th AGHE Annual Meeting. “Waves of Change: Charting the Course for Gerontological Education. Hilton Bayfront at St. Petersburg. Contact: www.aghe.org/am.

March 12–16, 2013

“Aging in America,” annual conference of the American Society on Aging at the Hyatt Regency in Chicago, IL. Contact: www.asaging.org.

April 4–7, 2013

“Transitions,” 34th Annual Meeting of the Southern Gerontological Society at the Hilton Charlotte University Place, Charlotte, NC. Contact Lora Gage at 239-541-2011 or LGage4SGS@aol.com.

May 3–5, 2013

Annual Meeting of the American Geriatrics Society, at Gaylord Texan in Grapevine, TX. Contact: www.Americangeriatrics.org.

June 23–27, 2013

“Digital Aging; New Frontiers” 20th World Congress of Gerontology and Geriatrics, in Seoul, Korea. Contact: www.iagg2013.org.



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