



the Center Report

Faculty Presents Research at GSA

Over 100 Center faculty and fellows presented their research or participated in symposia at the 2009 Annual Scientific Meeting of the Gerontological Society of America (GSA), held in Atlanta, GA, last November.

E. Corsentino, N. Sachs-Ericsson, & D. Blazer presented a poster on **Depressive Symptom Clusters and the Relationship to Cognitive Functioning**. They concluded that depression may cause cognitive decline and may be a key factor in the etiology of dementia.

T. Deshefy-Longhi and L.L. Davis presented a paper on **Nonverbal Communication Accuracy: Parkinson Disease Couple Compared to Matched, Well-Elder Couples**. Conclusion: If risk of compromised non-verbal communication can be identified, Parkinson Disease couples can be coached in alternative expressions of communication.

E.O. Edgerton, G. Buhr, S. Pineiro, K. Sipp, E.S. McConnell, & J. Schuh presented a paper on **A Learner-centered Approach to Interprofessional Instruction: Course Reflections and Practical Applications**. Systematic evaluation showed increases in faculty self-efficacy in actively teaching interprofessional core competencies.

J. Evans and C.F. Hybels presented a symposium on **Innovative Research in Late-Life Depression: From Clinical Epidemiology to Treatment Development**. Presentations included: 1) Cognitive changes after antidepressant treatment; 2) Culturally informed treatment for late-

life depression among African American women; 3) Risk of suicide across the lifespan; and 4) Epidemiological research examining ethnic differences in depression.



C.M. Galambos and E.S. McConnell presented a symposium on **The Use of In-Home Monitoring Systems to Enhance Aging-in-place**. They discussed three technologies: 1) An integrated sensor network to detect early illness through the use of motion and bed sensors. 2) Density map visualization can be used to track activity including time away from home. 3) An automated estimation of activity levels based on silhouettes extracted from video data.

L.P. Gwyther presented a paper on **A Family-Friendly Alzheimer's Strategic Plan**. She offered recommendations for expanded community translation and uptake of evidence-based, or at least evidence-guided, practice in community settings to integrate value-added family assessment, training, and supports through transitions in care for person with dementia.

K. Hall, G.M. Crowley, R. Sloane, M. Peterson, & M.C. Morey presented a paper on **Personal Health Goals in Older Adults: Prospective Trends and Long-term Predictors**. Conclusion: Although both the treatment and control groups demonstrated improvement on their goals,

the rate of change was significantly greater in the treatment group.

C.C. Hendrix, A. Abernethy, & L.R. Landerman presented a paper on **Promoting Self-efficacy and Preparedness in Caregivers of Older Cancer**

Patients before Hospital Discharge. Conclusion: there was a significant improvement in caregiver self-efficacy immediately after training which was sustained for 4 weeks after hospital discharge.

C. Hybels & L.R. Landerman presented a poster on **Depressive Symptom Profiles as Predictors of Trajectories of Functional Limitations in Older Adults**. They concluded that negative affect symptoms and somatic symptoms alone as well as in combination can predict an increase in functional limitations over time.

T.R. Konrad, M. Heflin, E.O. Edgerton, S.O. Pinheiro, D.K. Thornlow, & E.S. McConnell presented a paper on **Improving Quality in Transitions of Care for Older Adults: Overview of an Interprofessional Course for Advanced Learners**. They

Continues on page 5



Goal setting as a strategy to increase physical activity in older veterans



Katherine S. Hall, Ph.D.
Postdoctoral Geriatric Fellow
at the Durham VAMC GRECC

Individuals around the world conduct their own tests of the utility of goal-setting every year—in the form of new year's resolutions. Goal-setting has long been recognized as a tool for improving performance, serving to moti-

the Center Report

Vol. 30, #1, Spring 2010

Published quarterly by the Duke University Center for the Study of Aging and Human Development and the Claude D. Pepper Older Americans Independence Center.

Director: Harvey J. Cohen, MD

Editor: Erdman B. Palmore, PhD

Box 3003

Duke University Medical Center

Durham, NC 27710

(919-660-7500; karen.ray@duke.edu)

Produced by the Duke University Copy Center

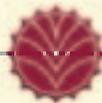
vate people to change behaviors and adopt new ones. To date, our understanding of the role of goal setting as it relates to physical activity (PA) is limited, and we know even less about these relationships in older adults, the least active segment of the population.

Although understanding the interplay between goal attainment and physical activity is important for both short-term (i.e., during the intervention) and long-term behavior change in older adults, most physical activity researchers fail to ask whether individuals have personally relevant goals that relate to the intervention. Furthermore, the connection between these two factors has not been assessed. Instead, physical activity researchers have operated under the assumption that increasing physical activity will, by default, improve performance on personal goals.

With this in mind, we designed a study to determine whether a structured intervention designed to increase physical activity in older veterans would result in a) increased minutes of physical activity and b) whether these changes would correspond to increased goal attainment. Prior to beginning the study, patients recruited from the Durham

VA Medical Center were asked to write down one health-related goal and one walking goal for their participation in the study. Examples of the goals set included “to exercise more,” “to increase my stamina,” “to be able to stay mobile,” and “to walk 1 mile without stopping.” Using a scale of one (the worst it could be) to 10 (the best that goal could become), they were asked to rate where they perceived themselves to be on reaching that goal at the present time. They rated themselves on these same goals periodically throughout the study.

Our work showed that being involved in the activity intervention did indeed increase the time spent in physical activity, and that these increases were accompanied by improvements on the individual's self-selected goals. Importantly, goal attainment during the intervention also predicted maintenance of physical activity after the study ended, further highlighting the long-term implications of motivational tools such as goal-setting. This study represents a preliminary step toward enhancing our understanding of the dynamic relationship between goal-setting and physical activity in older adults.



Diets and Longevity

Just because a substance is natural does not necessarily mean it is safe.

—Robert Butler, MD

Americans spend about \$23 billion a year on dietary supplements, much of it on herbs and other botanical remedies with little or no evidence that they have any beneficial effects. The National Institutes of Health in a recent report stated that most of these supplements are useless, and many are dangerous as well. The detrimental effects of these nostrums have not been well-researched and publicized. As Butler points out, “natural” does not mean safe. Snake venom, arsenic, cyanide, and nicotine are all natural substances.

Many people assume that because a substance is available without prescription in health food and drug stores, it has been tested for safety and efficacy by the Federal Drug Administration. Not so! There are now over 30,000 unregulated products sold on the U.S. market – up from only 400 in 1994. This is a result of the 1994 Dietary Supplement Health and Education Act (DSHEA) which provides a danger-

ous loophole: the act provides that the manufacturer can claim that their product affects the “structure or function” of the body as long as no claim is made for the effective prevention or treatment of a specific disease. The only requirement is a disclaimer stating that the Food and Drug Administration has not evaluated these claims. The DSHEA should be rescinded and dietary supplements should be evaluated by the FDA.

Unfortunately, there is no “secret to longevity.” Despite the claims of thousands of commercials for so-called “anti-aging drugs,” special diets, herbs, and nostrums, there is no reliable scientific evidence that any of these things can significantly increase longevity. Not garlic, nor yogurt, nor gero vital, nor testosterone, nor large doses of Vitamins, nor green tea, nor queen bee jelly, nor monkey glands will make you live longer. Of course a few people have some chronic condition that may benefit from some dietary supplements.

Furthermore, there is no evidence that restricting calorie intake below

the normal minimum will increase your longevity (unless you are a rat).

On the other hand, there is considerable evidence that the following can contribute to good health and greater longevity:

- regular exercise;
- a nutritious and moderate diet with lots of fiber (avoiding obesity);
- staying active physically, mentally, and socially;
- volunteer activities;
- a positive view of life;
- avoiding tobacco and excessive alcohol;
- driving safely;
- fastening your seat belt;
- good hygiene and medical care.

So the bottom line is: there is no secret to longevity, but well-known healthy habits can help you enjoy a normal life-span.

—Erdman Palmore, PhD

The opinions in this editorial are those of the author and not necessarily those of the Duke Center for the Study of Aging.



New initiative to fast-track Alzheimer's Prevention Studies

**Lisa Gwyther, MSW,
Education Director
Bryan Alzheimer's
Disease Research Center**

A 68 year-old African-American retired female science teacher, a 57 year-old Caucasian woman caring for two parents with Alzheimer's disease, and a 77 year-old retired executive living in a Triangle area retirement community have a common passion. They want to stop the growth of memory-robbing diseases like Alzheimer's in their communities and for the future well-being of their families. They want to be the first to learn about opportunities to participate in Alzheimer's prevention studies. They have joined with more than 570 people primarily from the Triangle area of North Carolina in a unique initiative to fast-track Alzheimer's prevention studies through the Bryan Alzheimer's Disease Research Center (ADRC) at Duke.

The Bryan ADRC's Alzheimer's Disease Prevention Registry (ADPR) is unique. Modeled after similar cancer prevention registries, it is the first prevention registry of individuals over 55 years old who do not have a diagnosis of Alzheimer's or a related disorder. Dr. Kathleen Welsh-Bohmer, a neuropsychologist and director of the Bryan ADRC, stresses the urgent need to have 1500 or more older individuals without significant memory impairment



Henry Edmonds

who can be quickly mobilized to participate in drug and non-drug studies testing more definitive and effective preventive approaches to ward off declines in memory and thinking.

Duke's Bryan ADRC is unique not only in its focus on prevention, but also in its commitment to create a registry reflective of the diversity of older adults in Durham County. To date, over forty percent of registry participants are older African-Americans, far more than the percentage of 55+ African-Americans in Durham County. Henry Edmonds, a Baptist minister, directs the African-American Community Outreach Program of the Bryan ADRC. He is responsible for presenting this initiative to African-Americans, emphasizing the Bryan

ADRC's strong commitment to ensure that their families and communities will gain from participation of African-Americans in prevention studies. Mr. Edmonds immediately addresses questions of security or privacy of individual information and long-standing, historically justifiable distrust of research in the black community. His one-to-one communication and presentations at churches, and at community and employee health fairs are making a difference. People now understand that this focus on prevention is new.

The Alzheimer's Disease Prevention Registry is a registry of people able to travel to Duke who have expressed an interest in participating in future important prevention studies. It is open to individuals who are at least 55 years old and who do not have a diagnosis of Alzheimer's disease or a related disorder. Registration is not a commitment to participate in any specific studies; it only acknowledges an individual's interest in hearing about studies as they become available. There are two ways to register. First, secure online registration is available at adrc.mc.duke.edu/index.php/research/prevention-registry. Second, Michelle McCart, Bryan ADRC Clinical Research Coordinator will assist with private telephone registration at (919) 668-1605 or toll-free at 1-866-444-2372. Please indicate that you learned about the registry in The Duke Aging Center Report.



CONTINUED FROM PAGE 1

Faculty Presents Research at GSA

concluded that the course enhanced relevant knowledge and skills in quality improvement methodologies, cultural sensitivity, care transitions, and inter-professional care.

J.L. Locher, C. Ritchie, K. Vickers, & C.W.Bales presented a paper on **Use of an Ecological Perspective in an Intervention to Improve Nutritional Well-being of Older Adults Receiving Home Health Services**. The presentation focused on the use of the Ecological Perspective to promote healthy eating behavior.

H. Lum, T.R. Koves, K.L. DeBalsi, O. Ilkayeva, H.Van Remmen, and D.M. Muoio presented a poster on **Alterations in Mitochondrial Fuel Metabolism and Survival with Reduced Manganese Superoxide Dismutase (SOD₂)**. They concluded that ablation of SOD₂ appears to provoke tissue-specific perturbation in oxidation and perhaps the TCA cycle.

E.S. McConnell & D.S. O'Leary presented a symposium on **An Interprofessional Course on Improving Care Transitions: Implementation & Lessons Learned.** Their evaluation demonstrated significant improvements among both faculty and students on their self-efficacy for the majority of the core content.

D.R. Mehr, P. Tatum, D. Vinson, W. Davis, J.Tulsky, and P.G.Peters presented a paper on **Medical End-of-Life Decisions by Missouri Physicians**. Conclusion: Medical end-of-life decisions are common, and Missouri physicians may be excessively labeling treatment as either life-terminating or potentially life shortening, which might adversely limit appropriate palliative care at the end of life.

M.C.Morey, M.Peterson, D.F.Pieper, R.Sloane, G.M.Crowley, E.S.McConnell,

and H.Bosworth presented a paper on **Trajectories of Physical Performance and Activity after 12-month Cessation of Telephone Counseling**. Conclusions: After 12 months, (a) the trajectories and differences between the counseled and control group in terms of usual gait speed were sustained; and (b) although the magnitude of change over time decreased for rapid gait, overall between-group differences were sustained.

T. Okura, B.L. Plassman, D.C. Steffens, D.J. Llewellyn, & K.M. Langa, presented a paper on **The Quantity of Active Help and Supervision Provided to Older Adults with Neuropsychiatric Symptoms: The Aging, Demographics, and Memory Study (ADAMS)**. Conclusions: Neuropsychiatric symptoms among those with cognitive impairment or dementia are associated with a significant increase in the provision of informal care, especially supervisory care.

N. Park, F. Sun, L. Roff, D. Klemmack, M. Parker, H. Koenig, P. Sawyer, & R. Allman presented a poster on **Religiousness and Trajectories of Pain Intensity Among Community Dwelling Older Adults**. They concluded that intrinsic religiousness and church attendance may have moderating effects on one's pain experience.

M .Peterson, C.F. Pieper, R. Sloane, and M.C. Morey presented a paper on **Issues with Missing Data in Exercise interventions for Elders with Long-term Follow-up**. They discussed various statistical models' estimates, variances, and appropriate modeling of the form of trajectory of gait speed.

J.L. Purser, Q. Feng, & Y. Zeng presented a paper on **Specific and Graded Protective Effects of Regular Physical Exercise on Survival in Chinese Older Adults**. They

concluded that regular physical exercise has disability-specific and graded protective effects on 3-year survival in elderly Chinese adults. (See article on page 2.)

V. Scott, M. Heflin, C.C. Hendrix, S.O. Pinheiro, & S.N. Hastings presented a paper on **Problems in Transitions of Care: A Course Session Exemplar**. As part of an interprofessional course for advanced learners at Duke University, a learner-centered session focusing on problems in transition of care was described in detail.

R. Sloane, M.C. Morey, C.F. Pieper, and M.Peterson presented a paper on **The 400 Meter Walk as an Outcome Measure in Longitudinal Trials**. Conclusion: the proportion of those who did not complete the 400 meter walk increased over time; but there are ways to impute reasonable estimates of velocity for the non-completers.

D.K. Thornlow, H. White, M .Heflin, T.R. Konrad, & E.S. McConnell presented a paper on **Building Quality Improvement Expertise through Project-based Learning**. They concluded that the course improved student self-efficacy with respect to quality improvement methods.

Y. Zeng presented a paper on **Projecting the Demographic and Policy Impacts on Annual Pension Deficits: A Simple Method and Illustrative Application to China**. Conclusion: A gradual increase in the average age at retirement plus medium fertility associated with a smooth transition to the two-child policy and viable reforms in pension system management may help China to avoid the big troubles of annual pension deficit.

Y. Zeng, Z .Zhang, T. Xu, E. Ma, D. Gu, F. Zhang, & J. Corless presented a poster on **Association of Birth Outcome with Long-term Survival and General Health at Older Ages in China**. Conclusion: Impairments in fetal growth have long-term effects on survival and general health at older ages.



Alzheimer's 2010: Pathways to Discovery, Treatment and Prevention

By **Lisa P. Gwyther, MSW,**
Education Director
Bryan Alzheimer's
Disease Research Center

The 24th Annual Conference of the Joseph and Kathleen Bryan Alzheimer's Disease Research Center (ADRC) held February 11-12, 2010 filled to capacity three weeks before the conference. Despite record mid-Atlantic snowstorms and airport closings, most of the 357 pre-registered participants filled the Sheraton Imperial Hotel and Conference Center in Research Triangle Park for two days of encouraging research updates and clinical translation workshops. Participants reported leaving the conference inspired, hopeful and refreshed by new understandings, care and practice ideas. A majority of participants indicated they intend to participate in memory and aging studies or to encourage friends or family members to do so.

Over half of the professional or family member participants return each year for this signature annual report on Alzheimer's research and care from the Bryan ADRC at Duke Medicine as one of 32 National Institute on Aging Alzheimer's Disease Centers. This year, a unique group of older adults from Orange County churches and faith communities attended the conference with four staff members from the Orange County Department on Aging.

Research topics which were presented by Bryan ADRC director Dr. Kathleen

A. Welsh-Bohmer, by associate director Dr. James R. Burke, and by three distinguished guest faculty included current and future treatment and prevention strategies, useful early screening tools, Lewy Body Dementias, and the positive outcomes of evidence-based counseling and support programs for Alzheimer's caregivers.

Workshops focused on effective involvement of faith communities, person-centered residential care, linking primary care physicians and community support services for individuals with new diagnoses of dementia, mindfulness-based strategies for caregiver anxiety and adult day program models. The highlights of each morning plenary program were dialogues between Bryan ADRC directors and research participants and faculty panels addressing questions from participants.

Unfortunately, budget constraints limited seating capacity for this annual conference, and at least 100 potential participants were unable to register. A capstone 25th annual Bryan ADRC conference is planned for February 10-11, 2011, at the Sheraton Imperial Hotel and Conference Center in Research Triangle Park. Potential participants for this 25th annual Bryan ADRC Conference are encouraged to call or e-mail Cheryl.Copeland@duke.edu (800) 646-2028 to be added to the mailing list for the brochure and registration information.

Did You Know?

Which is the best answer to the following questions?

1. **The rate of poverty among elders is**
 - a. Lower than among those under 65.
 - b. Higher than among those under 65.
 - c. The same as it is for other age groups.
 - d. High as a result of their fixed income.
2. **The rate of poverty among aged African Americans is**
 - a. Less than that of whites
 - b. About the same as that of whites.
 - c. Double that of whites.
 - d. Almost triple that of whites.
3. **Older people who reduce their activity tend to be**
 - a. Happier than those who remain active.
 - b. Not as happy as those who remain active.
 - c. About a happy as others.
 - d. Healthier than others.

Answers:

- 1.a. The rate of poverty among people over 65 is about three percent lower than that of people under 65. The inclusion of children among those under 65 is the main explanation for this difference.
- 2.d. The rate of poverty among African Americans is almost triple that of whites (25% compared to 9%).
- 3.b. Most surveys and longitudinal studies have found that those who remain active tend to be happier than those who disengage, although some studies found no relationship between activity and happiness.

*Adapted from The Facts on Aging Quiz, 2nd Ed. by Erdman Palmore, NY: Springer Publishing Co., 1998.



Coming Events

April 9–10, 2010

8th Annual Leadership and Management in Geriatrics 2010, in Long Beach, CA, chaired by Dan Osterweil, MD,CMD. Presented by SCAN Health Plan® in collaboration with UCLA. Contact: <http://www.geronet.ucla.edu/centers/LMG>

April 8–11, 2010

31st Annual Meeting of the Southern Gerontological Society. Jefferson Hotel, Richmond, VA. Contact: Lora Gage at 239-541-2011 or www.southerngerontologicalsociety.org.

May 27–30, 2010

International Society for Gerontechnology 7th World Conference at Vancouver, BC, Canada. Contact: www.sfu.ca/grc/iscg2010.

June 8–13, 2010

Summer Training Course in Experimental Aging Research. San Antonio, TX. Contact: www.buckinstitute.org/TheScience/training/default.asp

June 16–18, 2010

3rd Annual Meeting, Society for Spirituality, Theology and Health: Religion and Health. Interdisciplinary Engagement and Interpretation. R. David Thomas Executive Conference Center, Fuqua School of Business, Duke University, Durham, NC. Contact www.societysth.org

October 5-8, 2010

18th International Congress on Palliative Care at the Palais des Congress in Montreal, Canada. Contact: www.pal2010.com or 1-450-292-3456.

Duke
UNIVERSITY

The Duke Center for the Study of Aging and Human Development
DUMC 3003, Durham, NC 27710
1526052

ADDRESS SERVICE REQUESTED

Non-Profit Org.
US Postage
PAID
Durham, NC
Permit No. 60