

*To be seventy years young is sometimes far more cheerful and hopeful than to be forty years old.*

—Oliver Wendell Holmes

# aging news

NEWSLETTER FROM THE INSTITUTE ON AGING | UNIVERSITY OF WISCONSIN-MADISON



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## Stress Across the Life Course: Long-term Parenting for Adult Children with Disabilities

IOA Affiliate **Marsha Mailick Seltzer** (Vaughan Bascom Professor & Director of the UW-Madison Waisman Center), in close association with **Jan S. Greenberg** (IOA Affiliate, Professor & Director of the School of Social Work, UW-Madison), studies the challenges of parenting a child with developmental disabilities or mental health problems. These parents face multiple, ongoing stressors, including managing their child's problematic behavior, dealing with financial burdens for health care, coping with the stigma of disability, grieving over milestones their child may never achieve, and worrying about who will care for their child after their death. There are great differences among such parents, with some showing profiles of resilience via the use of positive coping strategies and social support. Parenting of this type allows researchers to test general theories about the mental and physical impacts of long term, chronic stress, including what can cushion us against it.

MIDUS (see p. 4) includes a national, random sample of participants of various ages, 10% of whom (434 adults) were found to have children with disabilities, including attention deficit/hyperactivity disorder, autism, Down syndrome, schizophrenia, depression, bipolar disorder, and others. MIDUS allows the comparison of these parents to a group of parents with healthy children who were otherwise similar to the parents of children with disabilities.



Results showed that parents of children with disabilities experience significantly higher levels of negative affect (such as nervousness, sadness, restlessness, hopelessness, or

feelings of worthlessness), significantly more physical symptoms (such as headaches, backaches, stiff joints, and trouble sleeping), and have marginally poorer psychological well-being (such as low self-acceptance or poor quality relations with others).

Because MIDUS is a longitudinal study, parents whose child's disability first



## UPCOMING EVENTS IN MADISON, WI

### Wisconsin Osteoporosis Symposium

June 19, 2009  
(608) 240-2141

### Current Concepts in Nutrition and Aging Conference

September 17, 2009  
(888) 391-4255

### Institute on Aging 21st Annual Colloquium

October 1, 2009  
(608) 262-1818

For more details, see:  
[aging.wisc.edu/  
outreach](http://aging.wisc.edu/outreach)



became evident between the initial and ten year follow-up could be identified, allowing researchers to compare them before and after the onset of their child's symptoms. Results showed that following the onset of symptoms, parents experienced lower well-being than their comparison group, developed more chronic physical health problems, and were more likely to have experienced an episode of depression within the past year. Prior to the onset of their child's symptoms, however, these parents were similar in physical and mental health to the comparison group.

MIDUS also includes a subsample of participants whose daily experiences were recorded for eight consecutive days via phone interviews. Eighty-two parents of children with disabilities participated in this National Study of Daily Experiences. Results showed that these parents had similar patterns of daily time use and similar likelihood of positive daily events as their comparison group, but had significantly higher levels of stress. They reported having more types of stressors, more severe stressors, more arguments, and more stress at home (but not at work or in their network). Additionally, those that spent more time during the day with their children experienced more negative feelings.

These participants also gave four days of saliva samples, which were used to examine daily rhythms in cortisol level, a hormone associated with stress. Parents of children with disabilities showed the normal morning rise of cortisol, suggesting they "rev up" in a typical fashion for the day's challenges. However, they exhibit a significantly flatter daily decline of cortisol than is the norm, suggesting poorer recovery from stress and less ability to disengage from problems at the end of the day.

The study also identified several factors found to improve the well-being of parents of children with disabilities. Having greater financial resources and being married before the onset of their child's disability seemed to offer a buffer against



## *The maturity that comes with age may buffer us against long-term stress*

some problems, more so for measures of physical than mental health. Parents who were employed also showed lower levels of negative affect and higher levels of psychological well being, suggesting that taking a break from caregiving and engaging in other activities may protect them from experiencing acute distress.

Other results point to the benefits that may come with age. Parents who were older when their child was first diagnosed reported lower levels of negative affect and marginally better psychological well being, possibly because older parents are more mature and may have more prior parenting experience. Those whose children had been disabled longer also did better, suggesting that, over time, parents adjust to the stress of their child's disability as they develop skills to better respond to their family's circumstances.

## Sources

Prof. Seltzer will be sharing more of her research on the topic of lifelong caregiving at IOA's 21st Annual Colloquium (see opposite page).

Ha, J.H., Hong, J., Seltzer, M.M., & Greenberg, J.S. (2008). *Age and gender differences in the well-being of midlife and aging parents with children with mental health or developmental problems: Report of a national study.* *Journal of Health and Social Behavior*, 49(3), 301-316.

Hong, J., Ha, J.H., Seltzer, M.M., & Greenberg, J.S. (in review). *The effects of the onset of childhood developmental disorders on parents' mental and physical health.*

Seltzer, M.M., Almeida, D.M., Greenberg, J.S., Salva, J.S., Strawski, R.S., Hong, J., & Taylor, J.L. (2009). *Psychosocial and biological markers of daily lives of midlife parents of children with disabilities.* *Journal of Health and Social Behavior*, 50(1), 1-15.

# 21<sup>ST</sup>

# Annual Colloquium on Aging

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## Keynote: Forgiveness, Positive Psychology & Health

*Professor & Chair, Dept. of Psychology, East Carolina University*

**Kathleen A. Row, PhD**

Forgiveness is one way of responding to interpersonal injuries. It is thought of as a virtue and is recommended by all major religious traditions. Over the last 10 years, Dr. Row has studied the experience of forgiveness in men and women across the lifespan. Her talk

will address the definition of forgiveness, steps involved in reaching forgiveness, and its relationship to health and successful aging.



## Recent Advances in the Treatment & Prevention of Alzheimer's Disease

**Sanjay Asthana, MD**

*Professor, Dept. of Medicine; Section Head, Geriatrics & Gerontology; Director, Geriatric Research, Education and Clinical Center; UW-Madison*

Alzheimer's disease (AD) is the most common neurodegenerative disorder, projected to afflict more than 14 million Americans by 2030. Currently, there is no cure. Although four FDA approved drugs temporarily improve symptoms, they do not alter the disease pathology. There is urgent need to identify novel treatment strategies that will slow the progression of AD. It is critical to initiate these strategies at preclinical stages of AD that generally last for 2-3 decades. Dr. Asthana will discuss recent advances in diagnosing AD at the preclinical stages, and describe emerging therapies projected to favorably alter the disease pathology and symptoms.



## The Genetics of Type 2 Diabetes

**Alan D. Attie, PhD**

*Professor, Dept. of Biochemistry, UW-Madison*

Alan Attie's laboratory studies genetic factors that affect diabetes susceptibility. Although most people who have type 2 diabetes are obese, most obese people do not develop diabetes. Dr. Attie's lab has reproduced this obesity/diabetes dichotomy in mice by studying mouse strains that differ in obesity-dependent diabetes. The work involves the mapping and identification of disease causing genes and the development of gene network models to identify pathways leading to the disease.



## An Unanticipated Life: The Impact of Lifelong Caregiving

**Marsha Mailick Seltzer, PhD**

*Vaughan Bascom Professor & Director, Waisman Center, UW-Madison*

Dr. Seltzer's talk will provide an overview of the life course impacts of parenting a child with a disability, with a focus on autism, schizophrenia & other developmental & mental health diagnoses.

She will examine how these processes change with aging. In addition, she will examine patterns of daily stress in the lives of these parents & how the experience of daily stress is associated with changes in stress biomarkers. Finally, she will discuss how the family environment can enhance the functioning of individuals with disabilities in adulthood, highlighting profiles of resilience as well as vulnerability.



## Health & Resource Fair

Osteoporosis Screening  
Blood Pressure Testing  
Stroke Prevention  
Heart Health  
Nutrition & Fitness  
Alternative Medicine  
Hospice Care  
Housing Options  
Aging-related  
Community Resources

## Poster Session

UW researchers showcase new aging research.

## New Investigator Awards

Given to recognize outstanding achievement in biomedical, psychosocial, and clinical/applied aging research.

## Pre-Registration is Required

This event is open to the general public. Continuing Education Credits will be offered.

A brochure with details will be mailed out this Summer. To be added to the IOA mailing list, contact: (608) 262-1818 or [aging@ssc.wisc.edu](mailto:aging@ssc.wisc.edu)

Online registration will be available at: [aging.wisc.edu/outreach/colloquium.php](http://aging.wisc.edu/outreach/colloquium.php)



**THURSDAY, OCTOBER 1, 2009**  
at Monona Terrace in Madison, WI

Sponsored by the institute on **aging**

# new findings from MIDUS

Funded by the National Institute on Aging  
(P01 AG020166)



## College Educated Appear 10 Years Younger

It has been known for some time that higher education benefits mental processes such as memory and learning. MIDUS now shows that it also has beneficial effects on even more complex mental tasks.

Participants performed a task-switching exercise over the phone in which they gave responses to words as quickly as possible and switched back and forth between different response rules (e.g., either say “stop” to the word “red,” or say “go” to the word “red”). The time required to respond increased steadily, by fractions of a second, from young adults through middle and older age. In addition, the average response time was longer for those with lower levels of education than for respondents with a college degree, particularly when the task became more difficult. The study’s most dramatic finding was that respondents with college degrees actually performed at the same speed as people who were ten years younger than them, but who had lower levels of education.

Research suggests that cognitively challenging activities, like those associated with educational environments, may promote the formation of new connections between nerve cells in the brain and increase the cognitive reserve available as one ages. Thus, keeping the brain active by engaging in mentally challenging activities may have

positive consequences for many areas of our cognitive functioning as we age, for people at all levels of education.

**Source:** Tun, P.A., & Lachman, M.E. (2008). Age differences in reaction time and attention in a national telephone sample of adults: Education, sex, and task complexity matter. *Developmental Psychology*, 44(5), 1421-1429.

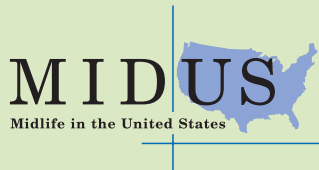


*Mentally challenging activities may protect our minds as we age*

## Social Resources Make Men More Resilient

Resilient people are those who overcome significant life stressors, such as divorce or death of a loved one, with few mental health consequences. Why do some people weather stressors better than others? Is resilience a result of genetic or environmental influences? A sample of 527 same sex twin pairs from MIDUS were studied to test the theory that the different environments in which individuals are socialized enhances genetically oriented resilience, perhaps with differences between men and women.

Most resilience research has focused on stressors from childhood, but this study investigated stressors more relevant to adults, such as issues with one’s spouse or children. Resilience was measured through lifetime stress exposure, in conjunction



The aim of MIDUS is to study successful aging as a long-term journey involving multiple factors (psychological, social, biological). The study began in 1995 with over 7000 participants, aged 25-74. Follow-up interviews, including new biological and neurological assessments, began in 2004. Thus far, over 200 publications have utilized MIDUS data. Most are archived at: [midus.wisc.edu/findings](http://midus.wisc.edu/findings)





*Men are usually taught to be independent, but women's socialization may make them more vulnerable to stressors involving friends & family*

with positive feelings, which were assessed with questions such as, how often do you feel cheerful, or satisfied and full of life? After controlling for social and interpersonal stressors, results showed that the heritability of resilience was higher for men than women.

The authors explain this difference by arguing that social roles better enable a genetic tendency toward resilience to manifest among men. They may be more resilient because they are socialized to be independent, whereas women are taught to be more relationship oriented and may thus be less resilient to stressors involving their friends and family. Women may also have learned less effective coping strategies. Some tend to ruminate over problems rather than use the more active coping styles favored by men. The findings show the relevance of gender as a critical factor that should be included in further studies of the genetic and environmental influences on health and well-being.

**Source:** Boardman, J.D., Blalock, C.L., & Button, T.M. (2007). Sex differences in the heritability of resilience. *Twin Research and Human Genetics*, 11(1), 12-27.

## Why are Some of Us Happier than Others?

Our sense of well-being is an important component in our life satisfaction, but we are only beginning to understand what influences our feelings of happiness. Although subjective well-being is known to be related to dimensions of personality, limited research exists on whether this association is due to shared genetic influences. A study of 973 twin pairs from MIDUS allowed researchers to test this idea.

Personality was assessed with scores on the Five-Factor Model (FFM), regarded as the most empirically valid measure of personality. The FFM describes personality in terms of degrees of openness, conscientiousness, extraversion, agreeableness, and neuroticism. Subjective well-being was assessed using the answers to three questions: how satisfied are you with your present life, how much control do you feel you have over your life, and how satisfied are you with your life overall?

The most important result of the study showed that well-being was genetically indistinct from personality traits, especially low neuroticism (emotional stability), extraversion (social and physical activity), and high conscientiousness (constraint). This indicates that genes related to personality are also partly responsible for the maintenance of individual differences in feelings of well-being. The finding has major implications for geneticists studying well-being, who focus increasingly on how genes that influence personality interact with environments to contribute to the human experience of happiness.

**Source:** Weiss, A., Bates, T.C., & Luciano, M. (2008). Happiness is a personal(ity) thing: The genetics of personality and well-being in a representative sample. *Psychological Science*, 19(3), 205-210.

**T**he process of maturing is an art to be learned, an effort to be sustained. By the age of fifty you have made yourself what you are, and if it is good, it is better than your youth.



—Marya Mannes



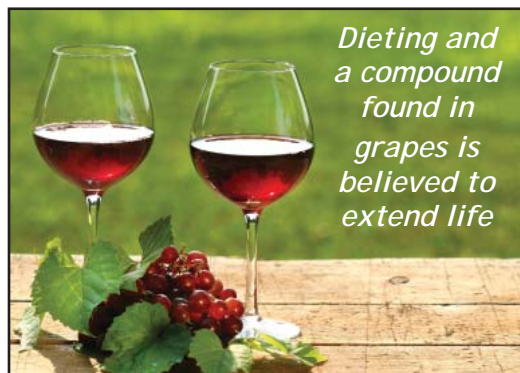
*A MIDUS twin study showed that happiness is genetically linked to personality type*

# affiliate news

For more information on the work of IOA Affiliated Faculty and Researchers at the UW-Madison, see: [www.aging.wisc.edu/research/affilindex.php](http://www.aging.wisc.edu/research/affilindex.php)

## Dieting UW Primates on 60 Minutes

Caloric restriction and aging research at UW-Madison were part of a featured story on CBS' *60 Minutes* with Morley Safer on January 25, 2009. The segment was filmed in Madison, and included a visit with the rhesus monkeys at the Wisconsin National Primate Research Center, as well as interviews with Drs. **Richard Weindruch** (Director, Primate Center Aging Research Group; PI for Program Project Grant, "Dietary Restriction and Aging in Rhesus Monkeys") and Ricki Colman (Co-PI Program Project Grant & Core Leader). The monkeys are part of a nearly two-decade study looking at whether those fed 30% fewer calories live longer. They are nearing the end of their usual lifespans, and thus far, 50% of the normally fed animals have died, compared to only 25% of those on the restricted diet. The entire *60 Minutes* story centered around ways to activate a human gene believed to trigger survival mechanisms that reduce the incidence of age-related diseases and extend life. Low-calorie diets seem to be one way. A substance called resveratrol, found in grapes and red wine, seems to be another. Researchers are hoping to produce it in pill form, in order to help those of us who have difficulty dieting. **Source:** [cbsnews.com/stories/2009/01/25/60minutes/main4752082.shtml?source=mostpop\\_story](http://cbsnews.com/stories/2009/01/25/60minutes/main4752082.shtml?source=mostpop_story)



*Dieting and a compound found in grapes is believed to extend life*

## Housework & Gardening Benefit Older Colon Cancer Survivors

As the number of older cancer survivors increases due to advances in treatment, more information is needed regarding after-care. Survivors are at an increased risk for limitations in physical function that can make it difficult to complete such basic activities as dressing and bathing. Although physical activity has been shown to decrease physical declines in many older adults, little is known about whether it is also beneficial to long-term colon cancer survivors.

*The most physically active cancer survivors appeared 10 years younger*

**Lisa Colbert** (Asst. Prof.) and **Kelli Koltyn** (Assoc. Prof.), of the Dept. of Kinesiology, UW-Madison, along with other researchers, completed a survey of 834 colon cancer survivors, aged 81.5 years on average, to assess the affects of exercise and other physical activities. A mailed questionnaire measured survivors' involvement in activities typically engaged in by older adults and limitations experienced in areas such as lifting, kneeling, climbing stairs, or walking several blocks.

Results showed that the most physically active individuals reported levels of functioning similar to those who were 10 years younger. Light activity, however, was not associated with better functioning. Many different types of activity (other than stretching) were also helpful. Housework, gardening, and walking were all highly associated with improved performance, suggesting that "working out" may not be necessary to maintain better physical function. **Source:** *Johnson, B.L., Trentham-Dietz,*

### AGING NEWS SPRING 2009

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Submissions of related news can be sent to Theresa Berrie at: [berrie@wisc.edu](mailto:berrie@wisc.edu)



A., Koltyn, K., & Colbert, L. (2009). *Physical activity and function in older, long-term colorectal cancer survivors*. *Cancer Causes Control*, published online January 4.

## Aging Stereotypes Can Be Barriers to Care

**Susan Heidrich** (School of Nursing & Dept. of Medicine, UW-Madison) was recently appointed a **Helen Denne Schulte Professor**, a position in the School of Nursing given to those with records of outstanding, continued scholarly research and exemplary teaching. She also received **Vilas Faculty Retention Funds** to assist in her research with older breast cancer survivors. A four-year clinical trial is in progress, testing whether negative beliefs about aging create barriers to the management of problematic symptoms such as stiffness, fatigue, or shortness of breath.

Older breast cancer survivors may be reluctant to discuss these types of symptoms with their health care provider for several reasons. They may see them as an inevitable and largely untreatable result of old age, rather than the possibly manageable side effects of cancer. They may avoid reporting symptoms to avoid being the target of negative aging stereotypes. They may feel that bringing up aging symptoms during cancer follow-up treatment is distracting and will result in their being labeled problem patients. Or, they may have trouble communicating with their provider, who also may hold stereotypes, such that older adults are unwilling to try new treatments.

The clinical trial tests the usefulness of having advanced practice nurses discuss



*Some patients may find it difficult to discuss aging symptoms*

with survivors whether their beliefs are barriers to managing their symptoms. Survivors then develop their own strategies for improvement. Preliminary findings show that study participants engaged in more self-care behaviors, including discussing symptoms with their health care practitioners.

## Sources

Heidrich, S.M., Brown, R.L., Egan, J.J., Perez, O.A., Phelan, C.H., Yeom, H., & Ward, S.E. (in press). *An individualized representational intervention to improve symptom management in older breast cancer survivors: Three pilot studies*. *Oncology Nursing Forum*.

Yeom, H., & Heidrich, S.M. (in press). *Effect of perceived barriers to symptom management on quality of life in older breast cancer survivors*. *Cancer Nursing*.



*Gray hair is God's graffiti*

—Bill Cosby

## welcome new IOA affiliates

**Barry Ganetzky** • Prof., Genetics

*Researching:* the biological mechanisms of age-dependent deterioration in our nervous system

**Marie-Louise Mares** • Asst. Prof., Communication Arts

*Researching:* how development across the lifespan alters the way we use & are affected by media content

**Lisa Nanovic** • Asst. Prof., Nephrology

*Researching:* how kidney disease can affect the cardiovascular health of older people

**Hal Skinner** • Asst. Prof., Population Health Sciences

*Researching:* the mechanisms whereby aging increases our risk of cancer



# Is Asthma Different for Older People?



National Institutes of Health guidelines for asthma management suggest using the same treatment for younger as well as older asthma sufferers, although evidence suggests that this might not be optimal for older people. Inhaled corticosteroid, the mainstay of asthma treatment, has greater potential for side effects in an older population. Conclusions from most asthma research may also not be applicable to older people because studies have not normally included older subjects.

**Conclusions from most asthma research may not be applicable to older people**

Asthma is a result of inflammation in the lungs, often caused by a dysfunctional immune response to the presence of an irritant. As we age, we often experience a deterioration of the immune system, called “immune senescence,” that is thought to explain our diminished immunity to bacteria and viruses. **Sameer Mathur** (Asst. Prof., Dept. of Medicine, Allergy Section, UW-Madison) is studying whether this changed immune response influences airway inflammation in older asthma patients. He is recruiting older and younger asthma subjects for a study to determine what treatment implications this difference may have. **Source:** Mathur, S.K., Schwantes, E.A., Jarjour, N.N., & Busse, W.W. (2008). *Age-related changes in eosinophil function in human subjects. Chest, 133, 412-419.*

**If you are interested in being part of a new asthma study of both older and younger people with asthma,**

**contact the Asthma and Allergy Research Coordinators at (608) 263-0524**

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*We turn not older with years,  
but newer every day.*

—Emily Dickinson