24th Annual Student Mentoring Conference in Gerontology and Geriatrics
Key Note Address and Paper Abstracts
March 29-30, 2013
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It is my honor, along with our seven academic sponsors— from the Southeast, to welcome everyone to the 24th anniversary of the Student Mentoring Conference. We are back to where we began, as the conference was held at the University of Georgia for its first eight years. Since gerontology is an interdisciplinary science that requires reaching out to collaborators, this conference brings together faculty and students from different disciplines to present their work. We also provide different views on how best to support and mentor students to ensure successful completion of their training.

I would first like to acknowledge our partners in this endeavor: Five universities from within Georgia (University of Georgia, Georgia State University, University of North Georgia, Mercer University, and Armstrong Atlantic State University), and three research universities from our neighboring states (University of Kentucky, University of Alabama, and University of South Florida). It has been a personal pleasure to work with our partners throughout the years. I thank them for their continued support.

“Public Health & Aging”

The theme of the 24th anniversary celebration is “Public Health & Aging.” We invited a past president of the Southern Gerontological Society to share with us her insights. In addition, two students who distinguished themselves in a previous conference will present keynote addresses.

We welcome you to the conference.

Toni P. Miles, MD, PhD
Director, Institute of Gerontology
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The 24th annual Student Mentoring Conference in Gerontology and Geriatrics was held at Hotel Indigo in Athens, Georgia on March 29-30, 2013. This conference provides a friendly environment for students to gain experience presenting their work in a professional setting. It also allows students and faculty from different schools with similar interests to meet and learn from one another. The theme of this year’s conference was Public Health and Aging.

The keynote address was given by Dr. Dana B. Bradley from Western Kentucky University. Dr. Bradley’s speech was entitled “Historical Lessons in Transnational Caregiving: What the New Zealand Settlers Knew.” In addition to the faculty keynote address, two of last year’s award winners presented student keynote addresses. Elizabeth Couser presented “Exploring Retinal Degeneration and Alzheimer’s Disease through a Gerontological Research Lens.” Elizabeth is currently pursuing her Ph.D. in Gerontology from the University of Maryland. Michael Schuier’s topic was “Cognitive and Physical Health Differences in Older Adults Based Upon Scores From the Mini Mental State Exam.” Michael is currently a student at the University of Kentucky working on a Ph.D. in Gerontology.

Twenty-two students presented on various topics at the conference. The presentations covered topics such as dietary modifications in obese congregate meal recipients, the effects of animal assisted therapy and activity on chronic illnesses among older adults, and death and dying in nursing homes. Each year Anne & Everett Lee Scholarship Awards are given to the top overall students. This year, Susannah Gordon was awarded first place, Chris Scoggins was awarded second, and Christine Mullen was awarded third. Honorable mentions include Jessica Lyles for the best undergraduate, Pamela Desin for the best poster, and Sara Najafi for the best presentation.

Every year a monograph of the Student Mentoring Conference is created by students so that they have an opportunity to engage in the peer review and publication process. This year, I had the honor of editing the monograph, and it has been a wonderful learning experience. I would like to thank Lindsey Megow from the University of Georgia for her assistance in the peer review process. I would also like to thank Dr. Anne Glass for all of her assistance; without her there would not be a monograph this year.

Melissa Armstrong
Master of Social Work Student
University of Georgia
Conference Speakers

Keynote Speaker:

Dr. Dana Burr Bradley, Western Kentucky University

Historical Lessons in Transnational Caregiving: What the New Zealand Settlers Knew

Dana Burr Bradley joined the WKU faculty in 2005 as the Clifford Todd Distinguished Professor of Gerontology. An Associate Professor of Public Health, she currently serves as the Director of the Center for Gerontology and the WKU Aging Initiative. A gerontological historian, she received her MS and PhD in Applied History and Public Policy from Carnegie-Mellon University where she was awarded a Rockefeller Foundation Humanities Fellowship to support her research on the history of state aging policies. An elected fellow of several societies, she serves in international leadership roles in Gerontology. Dr. Bradley thinks that leadership means suggesting “the possible” and crafting an environment of “the probable.” Being true to that motto, she was founding Co-Editor of the Gerontological Society of America’s international journal, the Journal of Aging, Humanities, and the Arts, and is the author of co-edited books and over 60 manuscripts and research reports, many involving undergraduates. She regularly teaches Honors Gerontology 100 emphasizing co-learning with Senior Scholars (whose average age is 89). She has also developed a popular colloquium “Endings: The Space Between Life and Death” in partnership with Hospice of Southern Kentucky and leads the Age Friendly Cities research initiative, a partnership between Bowling Green, KY and the WHO. Her research takes her regularly out of the United States. While she loves long flights, she misses her family and her three dogs, Pan, Loki and Kronos.
Student Keynote Addresses:

Elizabeth Couser, University of Maryland, Baltimore

Exploring Retinal Degeneration and Alzheimer’s Disease through a Gerontological Research Lens

Elizabeth Couser graduated from Saint Michael’s College in Vermont with a dual Bachelor’s degree in Psychology and Music before obtaining a Master’s in Social Work with a concentration in Clinical Geriatrics from SUNY Albany. She began her doctoral work in Gerontology at the University of Kentucky and continued to the University of Maryland, Baltimore, where she is a current student in the Gerontology PhD program. Elizabeth’s interests include neuro-ophthalmology, Alzheimer’s disease (AD), sensory neuroscience and the validation of methods to accurately measure degenerative processes in the human eye during AD. Her dissertation research will focus on retinal degeneration in Alzheimer’s disease, specifically in the photoreceptor layer, and the association with behaviors and perception. She currently conducts basic research in an ophthalmology lab, examining tissue samples for AD biomarkers in the lateral geniculate nucleus.
Cognitive and Physical Health Differences in Older Adults Based Upon Scores From the Mini Mental State Exam

Michael W. Schuier received his Master’s Degree in Marriage and Family Therapy at Mercer University School of Medicine in 2012, concentrating on Medical Family Therapy. He received his B.S. in Psychology at Georgia College State University in 2009. He received his A.A. in Education at Young Harris College in 2007. Michael has been an intern while working on his master’s degree at the Medical Center of Central Georgia, at Macon’s Family Health Center, and as a therapist at Mercer’s Family Therapy Clinic. Michael has presented at the Southeastern Student Mentoring Conference, 2012, at the undergraduate APA Conference, 2009, and has also been a member of other research studies during his academic career. Michael plans on continuing his education and earning a Ph.D. in Gerontology. He wants to pursue a career in academia while remaining active in research. His research interests involve data analysis examining the differences between various approaches by doctors and psychologists when relaying disease diagnosis to adults and geriatrics and how that affects the individual.
Exploring Retinal Degeneration and Alzheimer’s Disease through a Gerontological Research Lens

Until entering a doctoral program in gerontology, my professional and educational background had been centered in the social sciences. I came to my PhD program with a bachelor’s degree in psychology and music, and a master’s degree in clinical geriatric social work. Now as a PhD student, I primarily focus on the neuroscience and clinical side of Alzheimer’s disease (AD) research. Alone, neuroscience, social sciences, and clinical work seem to each be in an independent silo. In gerontology, not only do these fields complement each other, but they also thrive in doing so. The multi-disciplinary field of gerontology gives researchers like myself an opportunity to delve deeper into examining the older adult as a multi-faceted human being.

My research is centered in Alzheimer’s disease and visual changes as the disease progresses. Specifically, I am interested in retinal degeneration, for diagnostic and behavioral outcomes. Coming from the fields of psychology and social work, I spent countless hours working with individuals with AD and their families. I understood the disease from a functional perspective— the “who” of AD. As I began to seek answers for the physiological basis of behaviors, the cause and outcome for atrophy of the brain and methods to assess changes, I am now able to understand the “what”, the “how” and the “why” of AD. This paper will discuss three areas of research: clinical, biochemical, and psychology/behavioral, to form a comprehensive understanding of the visual changes in Alzheimer’s disease, made possible through a gerontological research lens.
Introduction

Late onset Alzheimer’s disease is well-known as a progressive and fatal disease, ravaging the lives and memories of many older adults. It is estimated that more than 5.4 million individuals in the United States are diagnosed with Alzheimer’s, a number that is expected to dramatically increase over the next several years (Alzheimer’s Association, 2013). Alzheimer’s disease (AD) is accompanied by memory loss, behavioral issues, and eventually functional limitations and death. Research has traditionally focused on neurological pathways for diagnostic and behavioral treatment approaches. Many of these methods are time consuming, invasive, and not truly accurate until post mortem examination.

In recent years, researchers have shifted their focus to the visual system in AD, with the hope of eventually being able to diagnose Alzheimer’s disease through a simple eye exam. Research shows a strong correlation between visual deficits and the progression of AD (Duggan & Cordeiro, 2010; Frost, Martins, & Kanagasigngam, 2010; Kirby, et al., 2010; Syed, Armstrong & Smith, 2005; Valenti, 2010). As the “window to the central nervous system”, the eye itself is instrumental in our functional abilities. As Alzheimer’s progresses, the ability to appropriately perceive one’s environment decreases due to the visual deficits, increasing the rate of behaviors such as confusion, aggression, agitation or paranoia (Kirby, et al., 2010).

The Visual System

The eye itself is a window to the central nervous system (London, Benhar, & Schwartz, 2013). Structures in the eye (e.g. retinal ganglion cells) are interconnected to the central nervous system and mimic changes that occur in the brain, specifically during neurodegenerative disease (London, et al., 2013). Before further discussion of neurodegenerative effects on the visual system, it is first essential to provide a basic understanding of the visual system and pertinent
structures (Figure 1A). On the very outside of the eye, we find the cornea, the clear film that protects the iris (the colored portion of the eye), the sclera (the white part of the eye) and the lens (the involuntary sphincter muscle that contracts and dilates to accommodate light changes). As we move into the eye, the vitreous humor, a clear gel substance, fills the internal portion of the eye and gives it a rounded appearance. Capillaries (the vasculature for the eye) line the outer walls. In the very back of the eye, we find the retina, where much of the information from our outside environment is first processed. The retina (shown in Figure 1B) consists of several layers, from the retinal nerve fiber layer (closest to the vitreous humor) to the photoreceptor layer (furthest from the vitreous humor). Each layer of the retina contains specific cells for specific processes, such as the retinal ganglion cells in the retinal nerve fiber layer (or ganglion cell layer), which are involved in circadian rhythm, or rod and cone cells of the photoreceptor layer, responsible for light perception. The optic nerve (Figure 1A) is the structure that exits the back of the eye and connects to the central nervous system, relaying perceived information to be processed in the visual centers of the brain.
Understanding Alzheimer’s Disease and Vision

Alzheimer’s disease research largely focuses on neurological deficits, as well as treatments and diagnostic measures via neurological pathways. In the broad picture of Alzheimer’s research, little attention has been placed on sensory change research, specifically in the area of vision (Kirby, Bandelow & Remier, 2010). Research indicates a link between visual system deficits and the progression of Alzheimer’s disease (Duggan & Cordeiro, 2010; Frost, Martins, & Kanagasigmgam, 2010; Kirby, et al., 2010; Syed, Armstrong & Smith, 2005; Valenti, 2010). Several areas of perception and structure are affected by the disease. Deficiencies may include: a reduction in optic nerve thickness (Frost, et al., 2010; Syed, et al., 2005), a decrease in retinal fibers (Duggan, et al., 2010; Frost, et al., 2010; Holroyd & Shepherd, 2001), a decrease in visual acuity (Mendez, Tomsak, & Remier, 1990), deficits in contrast sensitivity (Kirby, et al., 2010; Holroyd & Shepherd, 2001), as well as deficits in color and motion perception (Cronin-Golum, 1995; Holroyd & Shepherd, 2001; Valenti, 2010). Such a strong correlation was found between increasing retinal degeneration and the progression of the disease that a formation of
diagnostic criteria for Alzheimer’s disease was suggested (Frost, at al., 2010). In the future, it may be possible to diagnose Alzheimer’s disease through a simple eye exam, as opposed to the standardized invasive or time consuming measures, such as magnetic resolution imaging (MRI), measuring biomarkers in spinal fluid, or waiting for a post mortem examination for definitive results.

**Independent Work**

**Clinical Assessment Methods**

A popular clinical method to examine ocular changes is optical coherence tomography (OCT). This method is non-invasive and is able to provide rapid results. Similar to an ultrasound, the patient’s eyes are dilated and examined using computer assisted software to produce an image of the optic nerve and retinal layers. Several studies have used this method to measure the optic nerve and retinal nerve fiber layer (RNFL) width. A previous meta-analysis notes a distinct difference between retinal nerve fiber layer measurements in AD patients in comparison to RNFL width in control patients (He, et al., 2012). Valenti (2007) illustrates the differences of control and AD subject OCT images, specifically in the retinal nerve fiber layer (Figure 2).

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**Figure 2**

A. RNFL of Control Subject  
B. RNFL of AD Subject

OCT results comparing control RNFL (A) and AD RNFL (B). From Valenti, 2007, AAN.
After reviewing several studies that utilized OCT, the natural next step was to attempt to find a range for RNFL measurement in AD subjects, as compared to control subjects. A literature search was conducted in the Medline database using the keywords “optical coherence tomography” or “OCT” or “retina*” and “Alzheimer’s”. Only studies that were completed within the last ten years and provided an average RNFL measurement were included. Nine studies met these criteria. Though suggested as a possible future diagnostic method, OCT results varied immensely in the measurement of the retinal nerve fiber layer in patients with Alzheimer’s disease, from 59.5µm to 93.18µm, which overlapped with control measurements, ranging from 62.0µm -113.16µm (See Appendix 1 for detailed table of literature and results). This suggests that though OCT is able to detect differences between AD and control RNFL measurements, it may not be the most accurate or sensitive method to provide a precise range for diagnostic criteria in AD. Instead, OCT may be useful in detecting individual differences, for a more personalized approach to diagnosis.

Other clinical methods, such as pattern electroretinogram (PERG), are more invasive and slightly more uncomfortable. Generally, the electroretinogram is not part of the standard ophthalmic examination. This method involves placing a contact lens over the eye and recording the electrical response of the retina after applying a stimulus. The results will show how the retina, specifically the rod and cones cells of the photoreceptor layer, are functioning. Studies have shown a significant reduction of retinal functioning in individuals who have Alzheimer’s disease during PERG testing, when compared to healthy older adult controls (Krasodomska, et al., 2010). Additional methods should continue to be explored, such as the PERG, as options in detecting the ocular pathology of Alzheimer’s disease.
Biochemical Assessment Methods

To assess histological changes in the eye, including the identification of AD biomarkers, immunohistochemistry is used. Immunohistochemistry (IHC) is a method that isolates specific proteins or markers (e.g. Tau, Amyloid Beta) by attaching antibodies to tissue samples through a series of washes and stains. Every protein or marker of interest has a specific antibody that will be used to produce a stain. In a series of experiments, I examined rat eye tissue, rhesus monkey eye tissue, and older adult human eye tissue. All tissue samples were previously frozen and stored at -80°C in the laboratory of Steven Bernstein (Ophthalmology/Molecular Biology, University of Maryland, Baltimore). For each species, I stained for Amyloid Beta (Aβ) (produced in a rabbit, used at 1:1000 concentration), Tau (goat, 1:5000) and Amyloid Precursor Protein (rabbit, 1:000) (Millipore Laboratories). Prior to conducting the IHC with human eye tissue, a citrate uncover was used. Standard IHC protocol was used. A confocal fluorescent microscope was used to detect staining of all three markers. Aβ and Amyloid Precursor Protein did not produce significant results in any of the species. For the monkey eye tissue only, Tau was found to be significant in the retinal pigment epithelium layer (Figure 3). Hyper phosphorylated Tau (i.e. Tau protein that is defective) is the basis for neurofibrillary tangles found in AD. Rhesus monkeys age in a similar fashion to humans, and are therefore a good model for the aging process. Since Tau is naturally occurring in the CNS, it is unclear whether this result would be a precursor to a neurodegenerative process. Records of the monkey’s behavior and physical health were unavailable at the time of the experiment. Additional studies should be conducted to investigate the appearance of Tau and hyper phosphorylated Tau in the visual system, and the implications for neurodegenerative disease such as Alzheimer’s.
Psychological & Behavioral Assessment Methods

Though the above may be of importance to physicians in the field, literature also exists to suggest relevance for caregivers and non-medical professionals. Visual deficits account for many of the behavioral symptoms and functional limitations apparent in the disease (Kirby et al. 2010). Common symptoms of the disease (isolation, suspiciousness of others, paranoia) could also be explained by deficits in vision - inability to recognize faces, difficulty in depth/motion/color perception, etc. (Cronin-Golumb, et al., 1995). These behavioral symptoms may increase the rate of medication to control the individual, if not also resulting in increased rates of institutionalization and long term care costs (Hope, Keene, Gedling, Fairburn & Jacoby, 1998; Kirby, et al., 2010).

It is my hope to eventually combine the three areas of research discussed (clinical, biochemical, and psychological/behavioral) to illustrate a complete picture of the visual pathology of Alzheimer’s disease. Utilizing a gerontological research lens, not only is this plausible, but it is also necessary for a comprehensive view of the older adult.
References


Appendix One

Results from optical coherence tomography literature review

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Sample Size</th>
<th>AD RNFL Results</th>
<th>Control RNFL Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kirbas (2013)</td>
<td>40 AD 40 Control</td>
<td>65μm average</td>
<td>75μm average</td>
</tr>
<tr>
<td>Lu (2010)</td>
<td>22 AD 22 Control</td>
<td>92μm total</td>
<td>100μm total</td>
</tr>
<tr>
<td>Kergoat (2001)</td>
<td>30 AD 30 Control</td>
<td>66.2μm total</td>
<td>62.0μm total</td>
</tr>
<tr>
<td>Kesler (2011)</td>
<td>30 AD 24 Control</td>
<td>84.7μm total</td>
<td>94.3μm total</td>
</tr>
<tr>
<td>Parisi (2001)</td>
<td>17 AD 14 Control</td>
<td>59.5μm um average</td>
<td>99.9μm um average</td>
</tr>
<tr>
<td>Iseri (2006)</td>
<td>28 AD 30 Control</td>
<td>87.46μm average</td>
<td>113.16μm average</td>
</tr>
<tr>
<td>Paquet (2007)</td>
<td>14 AD 15 Control</td>
<td>89.2μm average</td>
<td>102.2μm average</td>
</tr>
<tr>
<td>Deng (2009)</td>
<td>15 AD 15 Control</td>
<td>82.92μm average</td>
<td>100.54μm average</td>
</tr>
<tr>
<td>Chi (2010)</td>
<td>12 AD 17 Control</td>
<td>93.18μm average</td>
<td>99.44μm average</td>
</tr>
</tbody>
</table>
Every year, Ann & Everett Lee Scholarships are awarded to the top three students overall. This year the winners were:

**First Place:** Susannah Gordon  
**Second Place:** Chris Scoggins  
**Third Place:** Christine Mullen

Honorable mentions were also given out. The honorable mentions were:

**Best Undergraduate:** Jessica Lyles  
**Best Poster:** Pamela Desin  
**Best Presentation:** Sara Najafi

(Pictured from left to right) Susannah Gordon, Chris Scoggins, Christine Mullen, Jessica Lyles, Pamela Desin, and Sara Najafi.
Abstracts

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University of Kentucky,
Graduate Center for Gerontology

Body Image in Older Women: How It Reflects with Body Image in Older Men and Younger Women

A study was undertaken to explore poor body image in older women, which remains a serious public health concern. Despite increased public awareness regarding this issue, the majority of older women suffer from poor body image and low body satisfaction. This often leads to risky behavior to lose weight. An in-depth literature review of PsycINFO and PubMed was conducted exploring poor body image in older women, its theoretical foundations, the discrepancy between the eternal self and the aging exterior, how body image differs between older women, older men, and young women, the dangers of poor body image, and mitigating factors. Twenty-nine articles and book chapters were ultimately selected for further detailed analysis. Literature findings were compared to 6 in-depth interviews with an older adult to assess the degree to which a case study reflected what is in the literature. Three themes emerged from the interviews and literature: older women continue to adopt mainstream cultural norms of beauty; this behavior detaches older adults from their body and promotes and maintains harmful behavior; and the eternal spiritual self often does not corroborate with the aging physical exterior. Longitudinal research is needed that follows cohorts of young women of today and in the future to examine how changing gender roles and the media affect the body image of older women.
Patterns of and Preferences for Alternative Homeopathic Therapies for Older Adults

Introduction: This study explores alternative and homeopathic options for older adults to assist them with health improvement and maintenance in various types of environments. It presents an overview of some of the strategies available, how they are employed, and outcomes of usage. Methods: The research articles used were reviewed and analyzed based on: if therapies were administered to an individual or group; the occurrence and frequency of therapies used alone or in combination with other types; or alternative therapies used in addition to traditional medical interventions. The extent and nature of positive and negative outcomes were examined. The articles presented diverse techniques for older adults, the probable effectiveness of each method, the impacts that each therapy may have on the participant, and the benefits and risks of the intervention. Personal opinions of practitioners and clients were included in the study. Results: The data are not conclusive, as studies that use a comprehensive design and analysis have not been conducted for each technique on a large scale. There are no studies of validity of the therapies in comparison to standard medical interventions. Review of the literature shows trends of more use of alternative and homeopathic therapies by individuals, or in conjunction with traditional medicine. Practitioners have begun to move toward recommending or providing alternative methods as an adjunct to, or substitute for, standard treatments. Conclusions: There is a need for more research on the efficacy of each therapy, utilizing a rigorous methodology with reliable data collection, and consistent evaluation of the results. A cost-benefit analysis to compare medical and non-medical approaches would possibly substantiate insurance coverage for individuals who prefer non-medical alternatives.
The majority of older adults want to stay in their current residence. Concerns about safety and health, home maintenance and security, and social isolation on the part of elders, their families, and society, may prevent them from aging in place, however. The Village concept began in Boston, in the Beacon Hill neighborhood. Villages create partnerships with existing providers to offer members needed services such as transportation, assistance with shopping, household services, and health care. Social and cultural events build community and foster quality of life. Members have access to information about existing resources and someone to call with questions. They are encouraged to help each other, as volunteers. The Village provides many of the benefits of assisted living without members needing to move. Last year, the Athens Area Council on Aging (AACA) obtained a grant to begin the first Village in Georgia, the Athens Area Village. As of February 2013, more than 120 older adults have joined. As an intern with the Institute of Gerontology, I am privileged to assist in the development of the Athens Area Village. One call connects members with the Coordinator (or sometimes me) and gives them access to a range of services through volunteers or approved providers. Social events that work against loneliness are well attended. Many members joined to help their neighbors. They want the Village to be there for them when they need it.
Obesity is Associated with Non-dietary Predictors and Consequences in Congregate Meal Participants

The purpose of this study was to explore the relationship between obesity and non-dietary factors in senior centers of Northeast Georgia. Participants were recruited from congregate meal programs in the Northeast Georgia’s Area Agency on Aging (AAA) (n = 95, mean age = 75 y, 78.9% female, 54.7% white, 45.3% African American). Data were collected using a questionnaire from the Geisinger Rural Aging Study (Dr. Gordon Jensen, personal communication, 2011). Height, weight, and waist circumference (WC, inches) measurements were used to create five obesity classifications: obesity according to body mass index (BMI > 30 kg/m2) and four WC thresholds (within BMI categories) associated with health risk (normal, overweight, obese I, and obese II) (Ardern et al, 2004). Regression analyses were used to identify the independent associations of four non-dietary variables with obesity when controlled for potential confounders (age, race, gender, education, and income). These variables were television viewing, use of an assistive device, assistance in shopping for food, and assistance in preparing food. According to these analyses, television viewing was significantly associated with four of the five obesity classifications (p < 0.05), assistive device use was significantly associated with three obesity classifications (p < 0.05), and needing assistance while shopping for food was significantly associated with two obesity classifications (p < 0.05). In conclusion, obesity in these older people is associated with some of the same risk as in younger people (e.g., TV), as well as age-related risks associated to using assistive devices and needing assistance with shopping for food.
Relationships of Depression, Anxiety, and Stress with Inappropriate Eating Behaviors in Older Adults

This study explored the relationships of inappropriate eating behaviors with mental health in congregate meal participants in Georgia (N = 124, mean age = 75 years, 75% female, 43% African American). Inappropriate eating behaviors were evaluated with the Three-Factor Eating Questionnaire (18 questions); mental health was assessed with the Depression Anxiety Stress Scale (21 questions). For analysis, depression, anxiety, and stress were each dichotomized (0 = low to normal symptoms, 1 = mild, moderate, or severe symptoms) and each eating behavior was dichotomized (0 = lowest two tertiles or three quartiles of the distribution, 1 = highest tertile or quartile of the distribution). In bivariate analyses, depression was associated with emotional eating (p < 0.001), anxiety was associated with cognitive restraint when all variables were run continuously (p < 0.01), and stress was associated with uncontrolled eating (p < 0.05) and emotional eating (p < 0.01). In multivariate regression analyses, depression was associated with emotional eating at the 66% split (p < 0.001) and at the 75% split (p < 0.0001), and stress was associated with uncontrolled eating (p < 0.05) and emotional eating (p < 0.01), when controlled for potential confounders (demographics and chronic health conditions); anxiety was associated with cognitive restraint (p < 0.05) when controlled for demographics, but was not significant when controlled for chronic health conditions. Thus, depression, anxiety, and stress may be influential to eating behaviors and may be targets for dietary intervention. Additional research is needed to determine how depression, anxiety, and stress contribute to eating behaviors so that health professionals may administer effective weight management programs in congregate meal participants.
Media Influences on Young Adults’ Perceptions of Aging and Adults 55+

Television has become a pervasive method of information transmission. This media has become a central medium of socialization in modern American society. Gerbner’s (1980) cultivation theory posits: 1) the media holds the power to shape individuals perceptions of reality and the social world around them by affecting their attitudes and thoughts and; 2) the more someone attends to the media, the more their attitudes and beliefs are influenced by the media. With the high prevalence of television consumption throughout the general public, it comes as no surprise research has found young adults watch, on average, 30 hours per week. Since television is such an integral part of everyday life and older adults are largely portrayed negatively in the media, the purpose of this literature review is to question how popular television shows targeting young adults 18-25 stereotype older adults 55+. For this literature review, information was gathered through literature search engines EBSCOhost, CINAHL Plus, AgeLine and GoogleScholar. Conclusion: This literature review revealed under-representations of older adult women in the media and how television advertisements depict idealized versions of aging; however this review found no recent literature specifically regarding how current popular television shows targeting young adults 16-25 depict the aging process and how young adults interpret what they see on these shows. This literature review aims to address these gaps and proposes a future study that will analyze how popular television shows affect young adults’ understandings and perceptions of aging.
Dietary Modifications in Obese Congregate Meal Recipients in Northeast Georgia Senior Centers

The purpose of this study was to determine if obese congregate meal recipients were attempting weight loss and/or making dietary and/or lifestyle changes to manage their obesity-related health problems. All congregate meal recipients from 4 Northeast Georgia senior centers were invited to participate (n = 91, mean age = 75 (SD = 7), 77% female, 46% African American). All data were collected in 2011 using a questionnaire from the Geisinger Rural Aging Study; height and weight were measured. Only 12 (30%) of the obese participants (n = 40) reported following a weight loss diet or using physical activity for weight loss (n = 6) or following a special diet (n = 6). Out of these 12, 7 participants reported diabetes, 11 reported high cholesterol, and 10 reported hypertension; however, there was no clear relationship between health conditions and type of diet (p > 0.05). Most obese participants reported following 2 to 4 different dietary modifications and/or weight loss programs (n = 8) while 1 reported following 8 special diets. Only 1 participant reported receiving dietitian counseling. The most frequently followed diets were diabetic (n = 6), low cholesterol (n = 6), weight loss through decreasing calories (n = 4), and weight loss through physical activity (n = 4). These results suggest that obese older adults are in need of nutrition education and counseling. Only 4 individuals reported cutting calories, which is 33% of the 12 attempting weight loss and 10% of all obese participants. Thus, fundamental strategies for weight loss are not being practiced by these obese older adults.
We previously reported cognitive function improvement from a clinical trial that examined the effectiveness of the computerized program Cogmed. In this presentation we report on the effect of this intervention on mood and anxiety symptoms. Older adults (N=68) living in the community who met criteria for mild cognitive impairment (MCI) were assessed. Participants were randomized to either a Cogmed or Sham computer program. A total of 25 sessions were completed over 5-7 weeks. Pre-, post- (1 week after intervention) and post-post (12 weeks) measures were applied to the Short Anxiety Screening Test (SAST) and the Geriatric Depression Scale-Short Form (GDS-SF). Paired t-tests were conducted to find significant changes in outcomes between pre-, post- and post-post measures, as well as regression analyses on pre- and post-post measures for mood. Results show that the Cogmed group had lower GDS-SF and SAST scores at the post-post time point compared to the Sham group. A non-significant improvement was also seen in mood and anxiety for Cogmed at the post time. Controlling for baseline scores, whether the subject received Cogmed or Sham was a significant factor in post-post scores for mood. Stratification of subjects into depressed and non-depressed, and anxious and non-anxious groups, revealed no differences in cognitive scores. Results suggest that both the Cogmed group, and to a lesser extent, the Sham group improved mood and anxiety in older adults with MCI.
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Redefining the Meaning of Caregiving: Remittances from US-Cambodian Elders to Families in Cambodia

We investigated how gathering and/or receiving remittances to send to families in Cambodia as a form of caregiving affected US-Cambodian families. Remittances, the sending of goods or money, to family members in developing countries reached over $300 billion in 2008; however, few researchers have studied transnational senders’ motives and efforts. In order to better understand the processes associated with remittance transfers, in-depth interviews were conducted with twelve US Cambodian elders regarding gathering or acquiring remittances, the effect on their own lives, and the perceived effect on the lives of those receiving the remittances. For this study, eight Cambodian Americans who keep sending goods or money back to Cambodia were recruited. Participants engaged in face-to-face semi-structured interviews in English lasting approximately 45 to 60 minutes. We found that the Cambodian families in the US felt it was important to assist families or organizations (if they have no surviving family members) in Cambodia. They perceived that the Cambodian families’ survival depended on these remittances, but at times, they learned that receiving families in Cambodia were better off than sending families in the US.
Naturally Occurring Retirement Communities (NORCs) are largely unidentified and unexplored from a research standpoint. This report and poster will examine data collected from a NORC in the Toco Hills neighborhood of Atlanta, GA, which receives organized services. The research was conducted by distributing surveys at two separate NORC-sponsored gatherings for a total of 34 respondents. The majority of the respondents were Caucasian (97%) females (91%), over the age of 70 (88%). Almost all had children (91%) and were of Jewish faith (87%). Basic statistics were used to examine demographics as well as the health, social well-being, sense of community, independence, participation in activities, satisfaction with living situation, and aging issues of the respondents. The results indicate that the respondents still consider themselves to be in relatively good health, and the only activity of daily living that any respondents said they needed help with was walking. Residents appear to be very independent, but also very connected to the community and their neighbors. Most respondents reported receiving help from their neighbors, as well as providing assistance to them. Additionally, residents participated in NORC-sponsored activities, with the most popular being luncheons or educational programs (90%). Far more data is needed on NORCs, but the research presented here indicates that the Toco Hills NORC is a relatively close-knit community and suggests that NORCs are a potentially positive living situation for older adults if the NORC is organized and sufficiently funded.
Validation of the Acumen System as a Screening Instrument for Cognitive Impairment

Due to the increasing number of dementia diagnoses, there is a present need for an effective and efficient screening tool to detect early cognitive decline. Acumen Neuropsychology (Acumen) is a computerized system that is currently validated for screening children and adults for ADHD. Due to the shared constructs underlying attention and cognition, Acumen is a computer-based measure that evaluates cognitive problems in older adults form varied and unique dimensions. We are attempting to determine its validity in diagnosing older adults with various memory impairments. In order to assess these impairments, the study administered 15 subtests from the Acumen that measure domains including visual memory, executive function, and motor skills. Scores on these subtests were compared on three older groups for purposes of construct validation. Subjects above 60 years of age (N=94) were recruited and separated into groups; Normal and Cognitively Impaired. Cognitive impairment was further delineated into MCI or Dementia groups dependent on test results. To corroborate impairment status, participants in the Cognitively Impaired group were evaluated using the following: Mini Mental State Examination, Montreal Cognitive Assessment, Clinical Dementia Rating, Trails A and B, parts of the Repeatable Battery for the Assessment of Neuropsychological Status, and Functional Activities Questionnaire. Results show that Acumen tests of Light Sequence, Logic, Reaction Time, Pattern Repeatability, Shapes, and Follow the Path were most sensitive to distinguishing among the three groups. Importantly, Acumen has the ability to appropriately distinguish among these groups. Thus, Acumen may be used as a stand-alone screening battery.
Gastrointestinal Preparation Reduces Length of Stay of Lumbar Fusion Patients, Especially at Older Ages

With the marked increase of both volume and cost of surgical spine procedures, it is beneficial to discover methods to reduce such cost without jeopardizing patients’ outcome. This current study assesses the efficiency of using milk of magnesia (MOM) preparation to decrease hospital stay for patients undergoing lumbar fusion surgery. A prospective non-randomized, non-double blinded study was conducted to assess length of stay (LOS). A total of 205 patients undergoing Lumbar Decompression and Fusion (LDF) or Lumbar decompression alone (LD) were given the option of taking MOM the night before surgery. We also targeted age as a variable, separating subjects into younger and older groups. A t-test was used to analyze the effect of MOM on LOS. Co-morbidities and post-operative gastrointestinal complications were evaluated as confounding variables. Results showed that patients who received MOM stayed 1.1 days less than those who did not. When age was assessed, older patients who took MOM did better than those who did not; this did not apply to younger groups of MOM users. In addition, patients who had a past history of chronic gastrointestinal disorder stayed 2.3 days less than their cohort if they took MOM. Importantly, trends show that older adults who had a history of GI problems and took MOM had less LOS. Approximately $500 million a year could be saved from the national healthcare budget if the length of stay for patients receiving spine surgery were reduced by one day.
Effects of Cymbalta (Duloxetine) on Perioperative Pain and Mood in Geriatric Spine Surgery Patients

As chronic pain continues to affect more patients, surgical interventions for lower back pain are also increasing. However, many patients continue to have pain and use opioid medications for long periods of time after surgery. Cymbalta (Duloxetine) is a Selective Norepinephrine Reuptake Inhibitor which functions as an antidepressant, but has also been approved for treating fibromyalgia and diabetic neuropathic pain. The current study was an Investigator-Initiated randomized clinical trial that compared Duloxetine plus treatment as usual (TAU) to a TAU control group of patients receiving various spinal surgeries (Lumbar Microdiskectomy, Anterior Decompression and Fusion, or Lumbar Decompression and Fusion). This poster presents the complete findings of this study after three years for older adults. Patients were recruited from a neurosurgical clinic and evaluated for exclusion criteria including current psychiatric diagnosis and concurrent psychotropic medications. Patients included in the study were separated into older and younger patients. All were evaluated for depressive symptoms (Beck Depression Inventory-II), pain, sleep, and general changes/adjustment over time (FAQ and CIBIC-plus). Duloxetine with TAU was significantly more effective for patients over 60 than younger patients in pain, as well as adjustment and affect. This was so when t-tests were applied, independent and paired (favoring older adults using Cymbalta), and univariate analyses, using age and group as factors (Cymbalta and Placebo), targeting pain, function and affect. Opioid use did not differ between age or group distinction. Cymbalta seems effective for older adults who receive spine surgery.
Cognitive and Affective Status of Patients Receiving Left Ventricular Assist Device (LVAD) Before and After Surgery

Patients with End-Stage Heart Failure are increasingly choosing the Left Ventricular Assist Device (LVAD) as a temporary or long term treatment option. The LVAD is a rotary device that aids in pumping blood from the weakened ventricle to the rest of the body, and approval for the device depends on severe heart failure, as well as uncomplicated cognitive, and affective qualifications. This is the “Dick Cheney” operation. The fiscal and psychological expense of this very complicated procedure warrants careful evaluation of prospective patients. At the same time acceptance for surgery can mean years of added life expectancy; thus it is crucial to accurately assess probable goodness of fit for the device. Working with an integrative team at a large medical school in the Southeast United States, we assessed patients on cognition and affect before and after surgery. The current study assessed patients in a preliminary attempt to predict functioning after surgery, and contributed to the LVAD team’s decisions regarding procedures and care management. Current data consist of 10 patients on the Montreal Cognitive Assessment, as well as Trails B. Measures are continually collected for depression, anxiety, sleep, pain, and reactions to medical treatment. Preliminary data show stability of patients’ cognition pre to post surgery (N = 6), as well as improved affect status. We present a case study of a current candidate to highlight barriers of treatment and of the role of cognitive impairment, caregiver burden, and depression in evaluation for surgery and outcomes.
Health Challenges of First Time Homeless Older Adults Living in Extended Stay Hotels

Increasing numbers of adults 50 and over are experiencing homelessness for the first time. In the search for affordable housing, many seek shelter in extended stay hotels. Despite meeting basic needs, these living conditions can evoke physical, psychological and social stressors that negatively affect health for this growing subset of homeless. While some participants report health issues that led to unemployment and homelessness, others state their mental and physical health concerns are a result of their homeless experience. Nine older extended stay hotel residents were recruited from a northeast suburban county in Metro Atlanta, across three qualitative research studies between 2006-2012, using flyers and snowball sampling. In each study, residents participated in one-hour in-depth interviews and were asked to describe experiences of “home” at extended stay hotels after housing displacement. Primary and secondary data analysis using constant comparative methods was used to identify descriptions of first-time housing displacement experiences and reasons for extended hotel tenures. Three categories of loss were identified to explain transitions into hotel homelessness: health loss, companion loss, and income loss. Additionally, health expenses and inadequate access to community resources delayed exits from hotel homelessness. Environment-based health stressors and implications for practice will also be presented.
Objective: This study aims to explore the dietary intake and depression among grandparents who are raising their grandchildren in Athens, Georgia.

Design, Setting and Participants: This study used the data from a longitudinal study which consisted of four weekly in-depth data collections on nutrition issues in a convenience sample of three grandparent caregivers by using in-person interviews, questionnaires, and observations. Participants included three female grandparents (mean age 68 ± 11 y).

Outcome Measures and Analysis: Interview responses were examined. Depression was measured using the Center for Epidemiologic Studies Depression Scale (CES-D). Dietary intake was assessed using the automated self-administered 24-hour diet recall (ASA24) system.

Results: All three participants were single and primary caretakers with a mean caregiving period of 8.6 ± 6.6 y. They were all obese and reported having at least one diet-related chronic condition. Two of the three reported symptomatic depression (>16 CES-D), and one participant had a clinically diagnosed depression (taking antidepressant medication). All participants reported unbalanced diets with inadequate intakes of micronutrients including calcium and vitamin D. The participant with a clinically diagnosed depression consumed a higher energy intake at 132% of her needs throughout the month, but others did not meet the energy intake needs.

Conclusions and Implications: The findings from this exploratory study suggest that grandparents raising their grandchildren consume inadequate diets and experience high levels of depression. More research is needed to better understand the challenges faced by these households and to develop programs to benefit them.
The primary objective in this literature review is to explore the present knowledge base concerning animal assisted therapy in connection to geriatric treatment. Animal assisted therapy and activity (AAT/A) is a therapy which is structured on the healing relationship between humans and animals. Past research shows AAT/A has the potential to reduce levels of pain and increased positive behaviors. The author has found a gap in information concerning AAT/A and geriatrics. Franks (2012) explains the benefits of the treatment in a nursing home/rehabilitation center as being an increase in nutritional intake resulting in weight gain of malnourished Alzheimer’s patients. Older adults who suffer from chronic pain, dementia and/or mental health disorders have shown improvement after receiving AAT/A. Benefits of receiving this treatment also include reduced stress levels and depression in clients of all ages. More research must be conducted in order to increase knowledge surrounding the therapeutic nature of the relationship between AAT/A and gerontology.
Updating The Community Guide: Sufficient Evidence Exists to Support Community-Based Exercise Interventions to Reduce Depressive Symptoms in Older Adults

Depression is the most prevalent mental health issue among older Americans. By itself, depression can be debilitating; it can lead to social isolation and lower quality of life, and can further exacerbate the aging process. Older adults are often contending with a myriad of health issues including chronic diseases, cognitive decline, and other comorbid disorders. A diagnosis of depression has been shown to exacerbate all other comorbidities and increase risk of mortality. For mobile older adults with depressive symptoms, implementing community-based exercise interventions to treat their depression could be a better alternative than using pharmacotherapy alone. As of 2008, the Community Preventive Services Task Force found insufficient evidence to support community-based exercise programs to treat depression in older adults. However, findings from recent studies in both the general older population and clinically depressed older adults showed that physical activity significantly reduced depressive symptoms. In addition, community-based exercise programs have yielded many other benefits including increased social interaction, improved overall quality of life, increased dexterity and strength, and a reduction in chronic disease severity and pain. Thus, these interventions improve both mental and physical wellbeing. An extensive review of the literature and existing programs suggests there is sufficient evidence for the Task Force to recommend community-based exercise programs to treat depression in older adults.
Cognitive Status and Post-Hospitalization Adjustment In Older Adults: An Analysis Utilizing the TRACE CORE Data Set

The importance of cognitive status in post-hospitalization adjustment is increasingly seen as relevant to overall outcomes. This is even more so in the context of cardiovascular issues. In particular, variability in cognitive status is a marker of problems in many patients. With this in mind, understanding the extent to which variation can be normal or abnormal in such a clinical setting may be key for both adjustment in the community and treatment of cognitive issues. Specifically, we plan to evaluate the diagnostic relevance and variability of the Telephone Interview for Cognitive Status (TICS). We utilize preliminary data from the TRACE CORE cooperative study to analyze longitudinal variation in cognitive status in patients hospitalized for Acute Coronary Syndrome (ACS). A total of 2,500 participants were assessed using the TICS at an in hospital baseline, as well as One, Three, and Six months post hospitalization. We present data concerning cognitive status as patients transition home post hospitalization. We target the variability in cognitive scores over time, addressing test-retest variances and changes in the sub-scores of the TICS itself, and relate these to outcomes for various types of patients. Results will compare quality of life measures, initial length of stay and medical utilization to provide an outcome profile based on cognitive status and variation.
Physicians rely on medication therapy to treat older adults so they can manage these chronic conditions, live longer, and enjoy an improved quality of life. However, a regimen of multiple medications may harm the patient, especially if the patient is an older adult. Medication therapy can have long-term effects and side effects that inconvenience the patient more than the condition the medication is supposed to treat. Older adults are more at risk for polypharmacy than any other population. By conducting a literature review, the author of this report investigated the effects polypharmacy has for older adults in the United States. A literature review also assisted the author in determining interventions that reduce the issue among older adults as well as improve health outcomes and cost savings for treatment of this population. Based on the research from examining the literature, the author constructed interventions based on the idea that the healthcare provider, particularly the physician, had more control over polypharmacy than the patient. For this reason, our interventions tackled the issue from the clinical side rather than from the consumer’s side. Only the health promotion and social marketing intervention relies on the behavior change of the older adult. Presently, the research indicates that changes in physicians’ prescribing practices can have more of an impact on improving and reducing polypharmacy due to a gap in knowledge between the physician and the patient.
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**Storytelling: An Ancient Tradition that Builds Community and Can Improve Health Outcomes**

Storytelling is an ancient tradition practiced by diverse cultures throughout the world. The catalyst for my literature review is the idea that storytelling can serve as a medium for creating community among people of all ages and across various sectors of society, including the healthcare system. One of the most important functions of storytelling is to pass on knowledge from older to younger generations. For elders, especially, autobiography is a way to identify and communicate crucial life events that have shaped them. Personal storytelling can be especially meaningful for older individuals and their families, as well as among their peers. This sharing can create social ties, build community, and help older people to retain a sense of identity at a time of life marked by significant changes in health status, relationships, and social roles. Furthermore, storytelling has an important role to play in health care. For example, there is research that suggests patient-to-patient storytelling may result in better health outcomes than the traditional doctor/patient dyad in which the physician explains the disease process and treatment options. This same research suggests that patient-to-patient storytelling may help reduce disparities in healthcare delivery. Moreover, storytelling is a crucial component of communicating health information from patient to healthcare provider. Unfortunately, the way our healthcare delivery system is structured, often there is too little time for patients to provide a complete overview of their health status. This literature review will explore the existing research on this topic. Gaps and recommendations will be shared.
Death and Dying in the Nursing Home

As our population ages, nursing homes will increasingly be the place of death and dying for older people. According to the CDC, at least one in four deaths among those aged 65-plus in the United States occurs in a nursing home. By 2030, 40% of deaths in the U.S. will occur in long-term care facilities. Multiple studies have been conducted about quality of life and family satisfaction with the end-of-life care of nursing home residents, and they reveal a great need for improvement. I gathered the information by conducting a literature review on the topic. I looked at books, articles, and research studies that demonstrated the importance of the proper care for dying patients in the nursing homes. The federal websites, like CDC.gov and National Health Statistics Reports, offered a foundation to my research by providing me with the statistical information needed to correctly analyze the problem of institutional death and dying. Current findings from nursing homes point to high incidence of pain, poor assessment and pain management, inadequate use of hospice, increased hospitalization, inattention to advance care planning, wide spread use of feeding tubes – all indicating inadequate end-of-life quality of care. The symptoms, needs, and illness trajectories of dying people are insufficiently recognized by professional caregivers with the result that opportunities for palliative intervention and hospice are missed. In order to improve the end-of-life care in nursing homes, better education and training of health professionals, especially the nursing aides, in the care of dying patients are needed.
Assorted Pictures