## TABLE OF CONTENTS

### Session Abstracts

#### General Session Abstract Book

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Path Forward: A Culturally Relevant Psychosocial Intervention for Depression in Cognitive Impaired Older Adults</td>
<td>S3</td>
</tr>
<tr>
<td>AAGP Training Programs: Stepping Stones to the Scholars Program: Implications for Recruitment Into the Field of Geriatric Psychiatry</td>
<td>S4</td>
</tr>
<tr>
<td>Ethical, Legal and Forensic Issues in Geriatric Psychiatry</td>
<td>S4</td>
</tr>
<tr>
<td>Global Brain Health Research: Collaborative Partnerships to Advance Care and Build Research Capacity</td>
<td>S5</td>
</tr>
<tr>
<td>Innovative Approaches to Training the Next Generation of Geriatric Psychiatrists</td>
<td>S6</td>
</tr>
<tr>
<td>Introduction to Agile Implementation Science: How to Select, Implement, Scale Up, and Sustain Evidence Based Geriatric Psychiatry Health Solutions</td>
<td>S6</td>
</tr>
<tr>
<td>Sexuality and Religion in Older Adults: The Devil is in the Details</td>
<td>S7</td>
</tr>
<tr>
<td>“Grandma, What Large Bank Accounts You Had”: Using a Geriatric Psychiatrist on Enhanced Multidisciplinary Teams</td>
<td>S8</td>
</tr>
<tr>
<td>What a Cute Little Old Lady!: Tackling Bias and Ageism in Medical Education</td>
<td>S8</td>
</tr>
<tr>
<td>Addressing Health Literacy in Special Populations</td>
<td>S9</td>
</tr>
<tr>
<td>Addressing the Challenge of Hoarding in Older Adults</td>
<td>S10</td>
</tr>
<tr>
<td>CFI in Action: An Interactive Workshop on the Use of the Cultural Formulation Interview</td>
<td>S10</td>
</tr>
<tr>
<td>Emerging Multimodal Neuroimaging Findings in Late Life Depression</td>
<td>S11</td>
</tr>
<tr>
<td>Strategies for Reducing the Overuse of Prescription Drugs in Elders: A Focus on Opioids and Benzodiazepines</td>
<td>S12</td>
</tr>
<tr>
<td>The Origins, Past, Present and Future of Geriatric Psychiatry</td>
<td>S12</td>
</tr>
<tr>
<td>Updates in Clinical Practice for the Clinician</td>
<td>S13</td>
</tr>
<tr>
<td>Case Presentation I</td>
<td>S13</td>
</tr>
<tr>
<td>Case Presentation II</td>
<td>S13</td>
</tr>
<tr>
<td>Catatonia and Delirium: Kissing Cousins Or No Relation</td>
<td>S14</td>
</tr>
<tr>
<td>Cultural Depictions of Resilience in the Face of Inevitable Family Dissolution in the Films “Make Way For Tomorrow” and “Tokyo Story”</td>
<td>S14</td>
</tr>
<tr>
<td>Meet Me Where I Am: Expanding the Reach of Mental Health Services With Home and Community-Based Services</td>
<td>S15</td>
</tr>
<tr>
<td>Mood, Brain and Aging: The Value of Longitudinal Approaches in Geriatric Psychiatry</td>
<td>S16</td>
</tr>
<tr>
<td>On the Move: An Update on Tardive Dyskinesia</td>
<td>S17</td>
</tr>
<tr>
<td>Psychopharmacology: Fact Or Fiction</td>
<td>S17</td>
</tr>
<tr>
<td>Research Award Session: Behavioral Symptoms in Dementia: Etiology, Intervention, and Future Directions</td>
<td>S18</td>
</tr>
<tr>
<td>Therapeutic Strategies in Depression With Cognitive Impairment</td>
<td>S18</td>
</tr>
<tr>
<td>Brain and Biological Markers of Aging in Late-Life Mood Disorders: Implications for Understanding and Treating Geriatric Depression and Bipolar Disorder</td>
<td>S20</td>
</tr>
<tr>
<td>Developing Your Clinician / Educator Career</td>
<td>S21</td>
</tr>
<tr>
<td>Managing Antipsychotic Medication Risks in Elderly With Major Neurocognitive Disorder (MNCID), Stroke and Psychosis</td>
<td>S22</td>
</tr>
<tr>
<td>Sociocultural Perceptions of Normal Aging—a Review and Media Presentation</td>
<td>S22</td>
</tr>
<tr>
<td>Substance Abuse in Older Adults</td>
<td>S23</td>
</tr>
<tr>
<td>Treatment Issues in Elderly Patients With Severe Mental Illness</td>
<td>S23</td>
</tr>
<tr>
<td>Caring for the Aging Vietnam Veteran: A Primer for Non-VA Clinicians</td>
<td>S24</td>
</tr>
<tr>
<td>Challenging Behaviors in Dementia Care: Recognizing Unmet Needs—a Positive Approach to Care (TM) Seminar</td>
<td>S24</td>
</tr>
<tr>
<td>From Admission to End of Life: Education and Training for Staff and Caregivers in Dementia Care in Long Term Care Setting</td>
<td>S25</td>
</tr>
<tr>
<td>Gay and Gray VIII: Improving the Mental Healthcare of Older Lesbian, Gay, Bisexual, and Transgender Patients Through Appreciation of Their Diverse, Intersecting Social Identities</td>
<td>S25</td>
</tr>
<tr>
<td>Herbal Medicine Use Among Elderly Ethnic Minority Groups</td>
<td>S26</td>
</tr>
<tr>
<td>International Medical Graduates and a Career as a Geriatric Psychiatrist</td>
<td>S27</td>
</tr>
<tr>
<td>Novel Cognitive Enhancement Strategies in Aging: Integrating Computerized and Pharmacologic Approaches</td>
<td>S28</td>
</tr>
<tr>
<td>Oral Presentation 1: Non-Pharmacological Interventions</td>
<td>S28</td>
</tr>
</tbody>
</table>
2018 AAGP Annual Meeting

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Psychiatry in Geropsychiatric Clinical Practice: In Schizophrenia, Cognitive Disorders, and Affective Disorders</td>
<td>S29</td>
</tr>
<tr>
<td>Update on Geriatric Psychiatry Maintenance of Certification Program</td>
<td>S30</td>
</tr>
<tr>
<td>Update on Recent Clinical Research in the Administration of ECT in the Elderly</td>
<td>S31</td>
</tr>
<tr>
<td>Developing Your Research Career</td>
<td>S31</td>
</tr>
<tr>
<td>2017 Highlighted Papers for the Geriatric Mental Health Clinical Provider</td>
<td>S31</td>
</tr>
<tr>
<td>2018 Honors Scholars Alumni Session</td>
<td>S32</td>
</tr>
<tr>
<td>Aging and Post-Intensive Care Syndrome: The Burden on Older ICU Survivors and Their Families</td>
<td>S32</td>
</tr>
<tr>
<td>Best of All Worlds: Geriatrics, Geriatric Psychiatry, Palliative Care: A Collaborative Continuum of Care for Patients With Cognitive Impairment in a Long Term Care Setting</td>
<td>S33</td>
</tr>
<tr>
<td>Case Presentation 2</td>
<td>S33</td>
</tr>
<tr>
<td>HIV—AIDS in Older Adults</td>
<td>S34</td>
</tr>
<tr>
<td>How to Make It Work? Different Models of Geriatric Mental Health Practice in Long Term Care</td>
<td>S35</td>
</tr>
<tr>
<td>Incorporating Mobile and Wireless Technology Into Clinical Care: The State of the Science</td>
<td>S35</td>
</tr>
<tr>
<td>Managing Sleep in Older Adults With Neurocognitive Disorder: Non-Pharmacologic Approaches Across the Care Continuum</td>
<td>S36</td>
</tr>
<tr>
<td>Understanding the Link Between Neuropsychiatric Symptoms and Cognitive Decline: Insights From Neuroimaging</td>
<td>S37</td>
</tr>
<tr>
<td>Will You Live Past 100? What Centenarians Can Teach Us</td>
<td>S37</td>
</tr>
<tr>
<td>Advances in Understanding Vulnerability to Late-Life Suicide: Clinical Implications</td>
<td>S38</td>
</tr>
<tr>
<td>Culturally Competent Mental Health Care for Kupuna: An Updated Diverse and Inclusive Curriculum</td>
<td>S39</td>
</tr>
<tr>
<td>First Do No Harm: Improving the Quality and Safety of Psychotropic Prescribing Among the Elderly</td>
<td>S39</td>
</tr>
<tr>
<td>High &amp; Lows: Clinical Pearls and Lessons Learned in the Outpatient Management of Bipolar Disorder</td>
<td>S40</td>
</tr>
<tr>
<td>Improving Mental Health Care Access, Engagement, and Delivery Among Diverse, Underserved Populations: Collaborations From the Geriatric Mental Health Services Research T32 Postdoctoral Fellowship</td>
<td>S41</td>
</tr>
<tr>
<td>Influences of Biological Aging on the Psychopharmacologic Management of Late-Life Depression</td>
<td>S42</td>
</tr>
<tr>
<td>Managing Behavioral and Psychological Symptoms of Dementia in the Era of Black Box Warnings</td>
<td>S42</td>
</tr>
<tr>
<td>Retirement and Mental Health: How to Help Our Patients Retire Successfully</td>
<td>S43</td>
</tr>
<tr>
<td>Transforming the Geriatric Workforce: Today is Tomorrow</td>
<td>S44</td>
</tr>
<tr>
<td>When Geriatric Psychiatrists Retire: A Conversation About Critical Transitions in a Professional Career</td>
<td>S45</td>
</tr>
<tr>
<td>AAGP Advocacy: Strengthening Our Mission in Geriatric Mental Health</td>
<td>S45</td>
</tr>
<tr>
<td>Aging Can Be a Laughing Matter-Use of Improvisational Theater in Older Adults</td>
<td>S46</td>
</tr>
<tr>
<td>Clinical Applications and Research Updates of Genetics in Geriatric Psychiatry</td>
<td>S46</td>
</tr>
<tr>
<td>Depression in Dementia: Epidemiology, Screening and Treatment Pathways</td>
<td>S47</td>
</tr>
<tr>
<td>Measuring the Quality of Dementia Care: How It’s Done and Why It’s Good</td>
<td>S47</td>
</tr>
<tr>
<td>New Research on Substance Misuse and Abuse Among Aging Adults</td>
<td>S48</td>
</tr>
<tr>
<td>What a Geriatric Psychiatrist Needs to Know About Movement Disorders</td>
<td>S49</td>
</tr>
<tr>
<td>Cultivation of Well-Being Through Mind-Body Interventions</td>
<td>S49</td>
</tr>
<tr>
<td>Cultural Competence in Palliative and End-Of-Life Care: Understanding Your Patient’s Context</td>
<td>S50</td>
</tr>
<tr>
<td>Frontotemporal Dementia, Alzheimer’s Disease, and Psychiatric Illness: A Roadmap for the Dedicated Clinician</td>
<td>S51</td>
</tr>
<tr>
<td>Negotiating 101 for Early Career Psychiatrists</td>
<td>S51</td>
</tr>
<tr>
<td>Research in Dementia and Depression in Elderly Japanese-American Men: The Kuakini Honolulu-Asia Aging Study</td>
<td>S52</td>
</tr>
<tr>
<td>The Assessment and Management of Treatment Resistant Depression in the Elderly</td>
<td>S52</td>
</tr>
<tr>
<td>The Marriage Between Clinical Pharmacy &amp; Psychiatry: A Novel Geriatric Training Experience</td>
<td>S53</td>
</tr>
<tr>
<td>Case Presentation 3</td>
<td>S54</td>
</tr>
<tr>
<td>Diversity and Inclusivity—Principles of AAGP Culture?</td>
<td>S54</td>
</tr>
<tr>
<td>Managing Behavioral Health Needs of Older Adults in the Emergency Department</td>
<td>S55</td>
</tr>
<tr>
<td>No Longer Invisible: The Role of International Medical Graduates (IMGS) and Physicians From Underrepresented Minorities in Medicine (URMS) in Geriatric Psychiatry</td>
<td>S56</td>
</tr>
<tr>
<td>Oral Presentation 2: Neuromodulation</td>
<td>S56</td>
</tr>
</tbody>
</table>

List of Session Presenters: S58
Poster Abstracts

Poster Abstracts by Title .......................................................... S75
Poster Abstracts by First Author ............................................... S79
Early Investigator Posters .......................................................... S83
New Research Posters ............................................................. S142
Dear Annual Meeting Attendee:

The American Association for Geriatric Psychiatry (AAGP) Annual Meeting is the premier educational program focused solely on late-life mental illness. The AAGP Annual Meeting provides the latest information on clinical care, research innovations, and models of care delivery.

This Supplement of the *American Journal for Geriatric Psychiatry* (AJGP) contains the abstracts of the scientific presentations that are scheduled for the 2018 Annual Meeting, “Integrated Geriatric Mental Health Care Through Innovation” including session and poster presentations. We hope you find it a useful resource for years to come.

We are pleased that we can provide this Supplement to those attending the AAGP Annual Meeting to maximize your attendance at the educational, research, and clinical presentations of interest to you, and also provide these abstracts, through on-line access (www.AJGPonline.org) to the subscribers of the AJGP, AAGP Annual Meeting website, and the AAGP Annual Meeting app.

Charles F. Reynolds, III, MD  
Editor-In-Chief  
AJGP

Iqbal “Ike” Ahmed, MD  
President  
AAGP

Shilpa Srinivasan, MD, DFAPA  
2018 Annual Meeting  
Program Chair  
AAGP
Notes

Session Abstracts

Within this supplement, session abstracts are organized by session number at the time this supplement was published.

Poster Abstracts

Within this supplement, poster abstracts are organized by poster session and poster number at the time this supplement was published. Poster abstracts are also listed alphabetically by title and by first author listed.

* All Session and Poster Abstracts appear as originally submitted to AAGP with only minor editing to conform to the style of this supplement.

* The abstracts in this supplement for *The American Journal of Geriatric Psychiatry* are not peer-reviewed. Information contained in these abstracts represents the opinions of the authors.
A PATH FORWARD: A CULTURALLY RELEVANT PSYCHOSOCIAL INTERVENTION FOR DEPRESSION IN COGNITIVE IMPAIRED OLDER ADULTS

Session 100

Dimitris Kiosses1; Mirnova E. Ceïde2; Janice Korenblatt2

1Gary KennedyWeill Cornell Medicine, White Plains, NY
2Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

Abstract: As the geriatric population increases, it has also become more diverse. According to the 2011 U.S. Census Bureau, 8% of older adults are Non-Hispanic Black and 7% are Hispanic/Latino. Similarly in Bronx County New York, 53% of patients speak a language other than English in the home. The Bronx has a growing Hispanic and non-Hispanic Black population, which faces a high prevalence of poverty, medical morbidity and comorbid depression. In a pilot study conducted at the Bronx-based Montefiore Geriatric Neurology Center, rates of depression were over 40%. Ethnic minorities are less likely to be included in research trials and have less access to innovative treatment modalities. Hispanics and Non-Hispanic Blacks are also less likely to seek mental health treatment and to find antidepressants acceptable. According to the Alzheimer’s Association, about 200,000 Latinos in the United States have Alzheimer’s disease dementia (AD). Moreover the highest prevalence of dementia is found in Latin America at 8.5%. In 2004 Montefiore Home Care in collaboration with Cornell Westchester division established the Montefiore Home Care Geriatric Psychiatry Program (MHC-GPP) to provide depression screening for homebound, medically ill older adults. During the 13 years of this program, the MHC-GPP has not only identified and treated homebound adults with depression, but has reached a population comprised of mostly Hispanics and Non-Hispanic Blacks (49% and 30%, respectively). Additionally the program has identified cognitive disorders as 3/4 of the new diagnoses identified by the MHC-GPP were neurocognitive disorders. Previous literature has shown depression to be one of the most common neuropsychiatric symptoms of AD and dementia related disorders, with a prevalence from 25% to 75% of patients. Unfortunately, previous trials have also shown that depression in the setting of AD is minimally responsive to antidepressants. This population is also unlikely to benefit from short term evidenced based psychotherapeutic modalities such as Problem Solving Therapy (PST) due to cognitive limitations. Furthermore, depending on state mental health regulations, patients with neuropsychiatric symptoms of dementia cannot be served in a mental health clinic. Kiosses and colleagues developed a non-pharmacological intervention to treat older adults with depression in the setting of dementia known as Problem Adaptation Therapy (PATH). PATH is an evidenced based intervention using personalized strategies to decrease depression and disability in older adults with depression and cognitive impairment. To achieve this goal, PATH utilizes a simplified problem solving approach, employing compensatory strategies, environmental adaptations to bypass cognitive and functional limitations while incorporating the caregiver when necessary. In a randomized trial, PATH was yielded a significantly greater reduction in depression and disability when compared to home delivered supportive psychotherapy. In 2016, Montefiore and Cornell Westchester, collaborated again in a pilot study to adapt PATH to serve the diverse Bronx and Westchester county populations. In this program PATH is delivered in English and Spanish and in the home or office, in order to evaluate the efficacy of this model in all settings and establish the sustainability of this model within a larger and diverse health network. During this session, the presenters will describe the development and advances in the PATH model and various adaptations and how this model was adapted in Montefiore Medical Center health network. The director of MHC-GPP will discuss how the PATH is incorporated into a certified home health agency (CHHA) to reach homebound adults with complex medical and social backgrounds. Finally the presenters will discuss implications for future directions in aging research centered on emotional dysregulation and dementia while impacting a more diverse population of older adults.

Faculty Disclosures:

Dimitris Kiosses
Nothing to disclose

Mirmova E. Ceïde
Nothing to disclose
AAGP TRAINING PROGRAMS: STEPPING STONES TO THE SCHOLARS PROGRAM: IMPLICATIONS FOR RECRUITMENT INTO THE FIELD OF GERIATRIC PSYCHIATRY
Session 101
Paul D. Kirwin¹,²; Brent Forester³,⁴; Kirsten Wilkins¹,²; Michelle Conroy¹,²

¹Yale University School of Medicine, New Haven, CT
²VA Connecticut Healthcare System, West Haven, CT
³Harvard Medical School, Boston, MA
⁴McLean Hospital, Boston, MA

Abstract: The rapidly expanding population of elderly, many of whom will experience some form of mental illness, argues for more providers with geriatric psychiatry expertise. Multipronged approach’s are necessary to enhance the geriatric psychiatry workforce. Education in geriatric psychiatry remains an essential cornerstone to long reaching efforts to address emerging public health needs for an aging population. The AAGP training programs provide critical exposure to the riches of geriatric psychiatry, and enhance the pipeline of medical providers informed about the need for geriatric psychiatric expertise. Fellowship training in geriatric psychiatry provides a comprehensive experience in the diagnosis and management of psychiatric illness in late life. Yet, few psychiatry trainees are choosing this critical subspecialty, despite alarming public health needs. The AAGP training programs are designed to help address deficits in providers interested and/or focused on geriatric psychiatry.

Faculty Disclosures:
Paul D. Kirwin
Nothing to disclose

Brent Forester
Consultant: Lilly—Advisory board meeting
Research Support: Rogers family foundation—PI for geriatric research
Research Support: Assurex—Site PI for clinical trial
Research Support: Biogen—Site PI for clinical trial
Research Support: Lilly—Site PI for clinical trial

Kirsten Wilkins
Nothing to disclose

Michelle Conroy
Nothing to disclose

ETHICAL, LEGAL AND FORENSIC ISSUES IN GERIATRIC PSYCHIATRY
Session 102
Aarti Gupta¹,²; Meera Balasubramaniam³; Rajesh Tampi⁴

¹Yale University School of Medicine, New Haven, CT
²Connecticut Valley Hospital, Middletown, CT
³NYU Langone School of Medicine, New York, NY
⁴Case Western Reserve University (MetroHealth) Psychiatry Residency Program, Cleveland, OH

Abstract: Aging process can cause alterations in physical and mental functioning of older adults rendering them vulnerable to exploitation. Treatment of older adults is thus fraught with unique ethical and legal challenges. Healthcare professionals need to
be cognizant of these issues in treatment of their elderly patients in an effort to maintain their autonomy and prevent abuse. Certain illnesses that are more common in older adults can affect their capacity to make decisions. Psychiatrists are often entrusted with the responsibility of making this determination through capacity assessment and must be educated to recognize the need for such an evaluation. Another way of protecting an older person’s rights and facilitating a life based on their own decisions even after they lose decision making capacity is Advanced Health Care Planning (AHCP). Health care professionals should initiate a discussion about AHCP with their patients and their families and review it periodically. Lastly, the older adults incarcerated in prisons are a lesser studied population but there is a pressing need for better training of prison staff in issues of geriatric psychiatry as this population is growing and has its unique needs. In this session, we will first review the ethical and legal issues in geriatric age group, including capacity assessment, informed consent and appointing a surrogate decision maker and discuss some tools that may be helpful in making these assessments. Amongst the forensic issues in geriatric psychiatry we will discuss assessment of criminal responsibility and competence to stand trial in aging offenders in the latter part of our presentation.

Faculty Disclosures:
Aarti Gupta
Nothing to disclose

Meera Balasubramaniam
Nothing to disclose

Rajesh Tampi
Nothing to disclose

GLOBAL BRAIN HEALTH RESEARCH: COLLABORATIVE PARTNERSHIPS TO ADVANCE CARE AND BUILD RESEARCH CAPACITY

Session 103
Martha Sajatovic; Charles F. Reynolds

1Case Western Reserve University School of Medicine, Cleveland, OH
2University of Pittsburgh School of Medicine, Pittsburgh, PA

Abstract: During the past several decades, improvements in health care have led to increased life expectancy in many lower and middle income countries (LMICs). These demographic trends also impact the course and severity of chronic diseases including behavioral, cognitive and neurodegenerative disorders in later-life. Disorders of the nervous system, including neurodegenerative disorders such as Alzheimer’s Disease and mental health conditions such as depression, combined with disorders affecting the nervous system such as cerebral malaria, in aggregate contribute the most to the global burden of NCD disease and disability. Factors such as poverty, war, political instability, social inequalities and stigma all contribute to the outcomes and complications of many brain disorders. This presentation will address emerging global brain health research relevant to older people. In the first presentation, Dr. Reynolds will describe an intervention development project using lay health counsellors and addressing indicated depression prevention in older adults attending rural and urban primary care clinics in Goa, India. The presentation will encompass both qualitative and quantitative data, a description of the intervention, challenges met in developing and implementing the intervention (called “DIL”), and outcomes of a randomized controlled trial. In the second presentation, Dr. Sajatovic will present a novel self-management approach, TargetEd MAnageMent Intervention (TEAM) which has been developed to engage and improve health outcomes in Ugandans at high risk for stroke. TEAM is a nurse and patient co-led intervention focused on patient and family needs, practice in problem-solving, and attention to emotional and role management in preventing stroke. TEAM has demonstrated promising outcomes with respect to reducing recurrent stroke risk among young African American male stroke survivors in the United States. This presentation will describe how TEAM has been adapted and preliminarily tested in high-risk Ugandans as well as discuss recent advances in neurological research in SSA more broadly. The presentation will conclude with an overview of strategies to grow research and clinical capacity in brain-health sub-specialties, including a new initiative to promote adherence enhancement for patients with schizophrenia in Tanzania. Following the presentations, there will be discussion and ample opportunity for questions regarding emerging issues most relevant to older adults in global brain health.

Faculty Disclosures:
Martha Sajatovic
INNOVATIVE APPROACHES TO TRAINING THE NEXT GENERATION OF GERIATRIC PSYCHIATRISTS

Session 104
Josepha A. Cheong1; Robert Boland3; John Luo5

1University of Florida, Gainesville, FL
2Tennessee Valley Healthcare System—Nashville VA Medical Center, Nashville, TN
3Harvard Medical School, Boston, MA
4Brigham and Women’s Hospital, Boston, MA
5University of California, Riverside, Riverside, CA

Abstract: Educating trainees remains a satisfying avocation for many geriatric psychiatrists. However, there are significant challenges that can interfere both with educational efficacy and job satisfaction. Some of these are longstanding, such as the problems of feedback and evaluation. Some are new, such as the challenges of integrating the electronic health record into training, and preserving professionalism in the age of the internet and social media. Some challenges are not new, but have received greater attention in recent years, such as the challenges of training a more diverse work force as well as generational differences in trainees, as well as encouraging more interactivity and engagement in education approaches. To address these challenges and to assist academic training directors and educators in general maintain and enhance innovative resident, fellowship and medical student tracks, three experienced educators from different backgrounds, regions of the country and academic systems (Larger program, smaller program, VA system) will share their expertise, wisdom and advice on how to improve our educational effectiveness.

Faculty Disclosures:
Josepha A. Cheong
Nothing to disclose

Robert Boland
Nothing to disclose

John Luo
Nothing to disclose

INTRODUCTION TO AGILE IMPLEMENTATION SCIENCE: HOW TO SELECT, IMPLEMENT, SCALE UP, AND SUSTAIN EVIDENCE BASED GERIATRIC PSYCHIATRY HEALTH SOLUTIONS

Session 105
Malaz Boustani; Nadia Adams; Daniel R. Bateman; Shelley Suarez

Indiana University, Indianapolis, IN

Abstract: We are proposing this session to equip AAGP members to address the translational gap between clinical studies and clinical practice. In 2003, the Institute of Medicine’s Clinical Research Roundtable recognized scientific discoveries are being incompletely translated to concrete health benefits. Moreover, the Roundtable determined that “bench to bedside” translation efforts, i.e. developing new treatment options, alone were insufficient to achieve better health for our population. They
advocated investing in translation of research to everyday clinical practice and health decision making. Although this focus has led to increased NIH funding, effective systematic approaches to implementation science that aim to select, implement, scale up, and sustain evidence based geriatric psychiatry health solutions are lacking. Our workshop aims to provide the training in the methods needed for AAGP members to become effective change agents and evidence implementers at their home institutions. Sessions within the workshop will help participants develop new knowledge utilizing innovation and implementation science tools and processes to facilitate change within health care delivery systems. Participants will use the tools provided in this workshop to develop processes and strategies for rapid, efficient, and sustainable implementation of evidence-based programs and practices in the local “real world” to accomplish the quadruple aim.

Faculty Disclosures:
Malaz Boustani
Nothing to disclose

Nadia Adams
Nothing to disclose

Daniel R. Bateman
Nothing to disclose

Shelley Suarez
Nothing to disclose

SEXUALITY AND RELIGION IN OLDER ADULTS: THE DEVIL IS IN THE DETAILS
Session 106
Daniel Kim; Christopher R. O’Connell

Stanford University, Stanford, CA

Abstract: With an increasingly diverse aging population, healthcare providers caring for LGBTQ patients need to be aware of the many nuances of sexuality and aging, particularly as these relate to mental health concerns. Sexuality is one of the key characteristics of identity, which poses a dilemma for the LGBTQ community whose members frequently face considerable prejudice and stigma due to their sexual orientation. The goal of sustaining a healthy sexuality throughout the lifespan, particularly in later years, may therefore pose a particular challenge for the LGBTQ community, who number approximately 1–3 million individuals over age 60 in the United States, a number that is expected to double in the next 30 years. Moreover, aging gay adults appear to carry a disproportionate burden of both physical (e.g., diabetes, hypertension, and physical disability) and mental health issues and disorders (e.g., mood and anxiety disorders), compared to demographically similar aging heterosexual adults. They may also experience higher rates of substance use–related morbidities as they age (Halkitis et al. 2015). One of the less commonly discussed aspects of sexuality and aging is the role of religion and faith in aging adults’ experience and expression of their sexuality. Older adults who grew up in more homophobic eras or cultures may have confronted discrimination with respect to their sexuality, and may be less willing to disclose information about their sexuality to their healthcare providers. At first blush, religion and homosexuality are often seen as a polarizing source of conflict. However, this conflict may be more nuanced. Traditionally, religion is identified as a protective factor against suicide, however a recent Austrian study sampled over 350 lesbian, gay, and bisexual individuals, finding that although religion was associated with fewer suicide attempts, it was associated with higher levels of internalized homophobia (Kralovec 2014). This session will provide both an overview, as well as two rich case presentations, regarding sexuality and religion in older adults. Research on sexuality and religion in aging adults will be reviewed. Two cases in which issues of religion, sexuality, and mental health were inextricably intertwined will be presented and discussed.

Faculty Disclosures:
Daniel Kim
Nothing to disclose

Christopher R. O’Connell
Nothing to disclose
“GRANDMA, WHAT LARGE BANK ACCOUNTS YOU HAD”: USING A GERIATRIC PSYCHIATRIST ON ENHANCED MULTIDISCIPLINARY TEAMS

Session 107
Elizabeth J. Santos¹; Paul L. Caccamise²; Allison Granata³; Lindsay Calamia⁴

¹University of Rochester, Rochester, NY
²Lifespan of Greater Rochester, Inc., Rochester, NY

Abstract: This presentation will highlight an innovative elder abuse project implemented in New York State over the past four years which has demonstrated the unique role geriatric psychiatrists can play in elder abuse cases in collaboration with community partners. The presenters will discuss the history and rationale behind the concept of Enhanced Multidisciplinary Teams (E-MDTs) which have been operating in eight diverse counties in New York since 2013. Between 2012 and 2016 New York State implemented an Elder Abuse Prevention Intervention (EAPI) Initiative designed to address complex cases of elder financial exploitation. Through a grant from the US HHS Administration for Community Living to New York State Office for the Aging, one of five awarded in the nation, NYS Office for the Aging, Lifespan of Greater Rochester, and New York Elder Abuse Center at Weill Cornell Medical College collaborated to prevent and to address financial exploitation as well as co-occurring other forms of elder abuse by bringing together organizations and specialists with unique resources and skills to form coordinated, enhanced elder abuse multidisciplinary teams (E-MDTs). Although federal grant funding has ended, the NYS Legislature has elected to continue funding the teams and has provided for expansion to other areas of the state. E-MDTs will operate in 21 counties after this expansion. The mission of the teams, which were originally formed in Manhattan and in seven counties in upstate New York, is to focus on complex cases of financial exploitation. The “enhanced” feature of the teams is the addition of forensic accountants and geriatric psychiatrists to the membership of the teams. Forensic accountants who are trained to uncover irregularities and criminal have proven to be an essential resource for reviewing financial records and transactions to uncover illicit use of assets. Geriatric psychiatrists provide invaluable insights into medical co-morbidities, mental status and capacity of elder abuse victims; they have also been called on to conduct capacity evaluations and testify in court. This presentation will discuss how geriatric psychiatrists with their specialized training are uniquely positioned to be helpful in investigations and successful prosecution of elder abuse cases.

Faculty Disclosures:
Elizabeth J. Santos
Nothing to disclose

Paul L. Caccamise
Nothing to disclose

Allison Granata
Nothing to disclose

Lindsay Calamia
Nothing to disclose

“WHAT A CUTE LITTLE OLD LADY!”: TACKLING BIAS AND AGEISM IN MEDICAL EDUCATION

Session 108
Kirsten Wilkins¹; William B. Brooks²; Mary C. Blazek³; Susan W. Lehmann⁴

¹Yale University school of medicine, New Haven, CT
²University of south alabama college of medicine, Mobile, AL
³University of Michigan School of Medicine, Ann Arbor, MI
⁴Johns Hopkins University School of Medicine, Baltimore, MD

Abstract: Ageism is the deliberate act of stereotyping and discriminating against individuals based on age. Physician, Robert Butler, M.D., first coined the term “ageism” in 1969 to describe discrimination against seniors. Nearly 50 years later, ageism continues to be ubiquitous in society and has a significant impact on older patients, the physicians who care for them, and on
medical trainees. Unlike racism or sexism about which there is considerable contemporary discourse related to diminishing bias and stigma, ageism has not been widely recognized as an area of social concern. Yet, there is much evidence that indicates that negative attitudes towards aging negatively affect older patients, and undermine appropriate diagnosis and delivery of quality healthcare to seniors. Ageism is prevalent in medical education clinical settings and in the “hidden curriculum.” Changing negative attitudes towards older patients and towards aging is critical in medical education to help produce the next generation of caring and compassionate clinicians. In this symposium, four geriatric psychiatrists who are also medical student educators will explore the various dimensions and consequences of ageism in medical training and in healthcare systems. Dr. Kirsten Wilkins will discuss the nature of ageism, its prevalence in society in general, and how it affects our culture and discourse. Dr. Bogan Brooks will describe the ways that ageism negatively impacts physicians, older patients, families and systems of healthcare. Dr. Mary Blazek will discuss how ageism presents both overtly and in the hidden curriculum of medical education and medical training. Finally, Dr. Susan Lehmann will describe novel ways of addressing and changing negative bias and stigma towards aging in medical education. Dr. Dennis Popeo will serve as Discussant and moderator.

Faculty Disclosures:
Kirsten Wilkins
Nothing to disclose

William B. Brooks
Nothing to disclose

Mary C. Blazek
Nothing to disclose

Susan W. Lehmann
Nothing to disclose

ADDRESSING HEALTH LITERACY IN SPECIAL POPULATIONS
Session 109
Julia Rubinshteyn; Edward Hines Jr.; Anne Day; Edward Hines Jr.

VA Hospital, Chicago, IL

Abstract: Adequate health literacy is necessary for effective communication between healthcare professionals and patients. Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Ratzan et al., 2000). An individual’s health literacy is impacted by factors unique to the individual, the culture, and the social context. Studies have estimated poor health literacy in 27–44% of the population (Gazmararian et al., 1999). Understanding who is at risk for low health literacy, and knowing how to assess and intervene with these patients is of utmost importance for healthcare providers. In addition, there are special populations and circumstances under which adequate health literacy may be even more critical; namely, during end-of-life decision making and with patients who have limited access to healthcare. The presenters of this symposium work in two different areas of geriatric medicine that are relevant to the discussion of health literacy among older and/or chronically ill patients: Home Based Primary Care (HBPC) and Palliative Care. HBPC is a national program within Veterans Affairs hospitals designed to provide longitudinal care for medically complex, frail, elderly Veterans in their home. The interdisciplinary HBPC treatment team consists of primary care physicians, nurses, social workers, dietitians, pharmacists, kinesiotherapists, psychiatrists, and psychologists. Many of the patients enrolled in HBPC live in rural areas, and would otherwise lack access to appropriate care; they are thus a vulnerable population, and having a comprehensive understanding of their ability to utilize health-related information is critical. Palliative Care is an area of medicine in which patients are asked to make complex, serious decisions about their healthcare. These patients, too, are vulnerable; having healthcare providers who understand their unique circumstance is important.

Faculty Disclosures:
Julia Rubinshteyn
Nothing to disclose

Anne Day
Nothing to disclose
ADDRESSING THE CHALLENGE OF HOARDING IN OLDER ADULTS
Session 110
David M. Roane1; Alyssa Landers2; Jackson Sherratt3

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2Weill Cornell Medicine, New York, NY
3Educational Alliance, New York, NY

Abstract: Hoarding is a significant problem both for the individual patient and the larger community. With DSM 5, hoarding disorder is now an independent diagnosis. Although this syndrome typically begins by early adulthood, severity increases with age. As older adults who hoard begin to confront the medical, cognitive, and social challenges of late-life, the condition of their living environment may deteriorate. Mental health providers and social service agencies are often asked to manage the situation. This workshop will focus on treatment methods and community resources that can help these vulnerable seniors, who are often socially isolated, to remain safely in their homes. Workshop participants will learn how to use objective rating scales to assess patients' living conditions and the contributors to hoarding including: excessive accumulation, difficulty with discarding, and lack of awareness. We will go step-by-step through a short-term cognitive-behavioral treatment model, detailing with clinical examples how to conceptualize cases, address motivation, and implement harm reduction-based therapeutic methods. Exposure strategies that address acquiring and discarding challenges will be showcased. The valuable role of home visits, and clinician apprehension about these visits, will be covered. In isolation, psychiatric treatment for hoarding in elderly patients is a limited intervention. Thus, the workshop will highlight the importance of identifying and pairing with community based organizations that are familiar with the circumstances of hoarding seniors. These partners can provide concrete support to seniors while addressing issues of immediate safety that interfere with therapy progress. Community workers interact intensively with their hoarding clients and can strongly reinforce the aims of therapy (e.g. assist a struggling senior with homework completion). Dividing the roles of the therapist and the community agency can be challenging and guidelines to work in an integrated fashion will be discussed. Workshop panelists will include a research psychologist, a community social worker, and a geriatric psychiatrist. Data on the effectiveness of a short-term comprehensive intervention with older adults will be presented. Finally, we will illustrate an approach to hoarding that build networks between providers and includes other stakeholders, including governmental agencies, to better coordinate services for this at-risk population. Participants will be encouraged to consider ways that geriatric providers can advocate for a more successful and humane community response to seniors who hoard.

Faculty Disclosures:
David M. Roane
Nothing to disclose

Alyssa Landers
Nothing to disclose

Jackson Sherratt
Nothing to disclose

CFI IN ACTION: AN INTERACTIVE WORKSHOP ON THE USE OF THE CULTURAL FORMULATION INTERVIEW
Session 111
Ali Asghar Ali1; Ladson Hinton2; Tatyana Shteinlukht3; Iqbal Ahmed4

1Baylor College of Medicine, Houston, TX
2University of California—Davis, Sacramento, CA
3University of Massachusetts, Worcester, MA
4Tripler Army Medical Center, Honolulu, HI

Abstract: Culture shapes every aspect of a person’s care in psychiatry, influencing their experiences of illness and distress and the models clinicians use to understand symptoms. Even when patients and clinicians share similar ethnic or linguistic backgrounds, cultural elements such as age, religion, and sexual orientation can influence the interaction. A cultural
formulation therefore is a necessary component of a comprehensive psychiatric assessment. The Cultural Formulation Interview (CFI) uses available evidence to create a standardized approach to cultural assessment using a semistructured interview. For trained clinicians incorporating the CFI into routine clinical assessments can help establish a foundation of person-centered care on which to build the rest of the diagnostic interview and treatment negotiations. In addition to the core CFI, there are the CFI-Informant Version and supplementary modules. These are especially pertinent to the geriatric practitioner. The CFI-Informant Version can be utilized when a patient is unable to provide the information. The “older adult” supplementary module addresses aging and age-related transition while the “caregiver” supplementary module can be used to clarify how individuals who provide care or a part of the social network view the patient’s situation. The workshop will begin with an overview of the CFI by a member of the committee that crafted the CFI. Thereafter the presenters will role-play the application of the CFI in geriatric clinical care situations. Specific elements and techniques on how to incorporate the CFI in clinical care will be highlighted. The role-play will be followed by a discussion. The workshop will conclude with audience members working in small groups to practice elements of the CFI. Presenters will assist participants with the process and provide in situ feedback.

Faculty Disclosures:
Ali Asghar Ali
Nothing to disclose

Ladson Hinton
Nothing to disclose

Tatyana Shteinlukht
Nothing to disclose

Iqbal Ahmed
Nothing to disclose

EMERGING MULTIMODAL NEUROIMAGING FINDINGS IN LATE LIFE DEPRESSION
Session 112
J.C. Nelson; Scott Mackin; Duygu Tosun; Olga Tymofiyeva

University of California San Francisco, San Francisco, CA

Abstract: Late life depression is one of the most common and debilitating psychiatric disorders experienced by older adults. Late life depression is complicated by the common co-occurrence of cognitive impairment and some estimates suggest as many as 50–60% of older depressed patients have cognitive deficits. As a consequence some of these patients will meet criteria for Mild Cognitive Impairment (MCI) and may be at increased risk for developing dementia. This session will examine the interplay between depression and cognitive impairment and offer new brain imaging findings that help to inform about this relationship. The use of multi-modal MRI imaging allows us to examine the brain using one scanning technology while controlling for pathology in other areas. For example, structural MRI imaging allows us to analyze cortical thickness while controlling for blood flow and evidence of vascular disease. In this session we will compare depressed older patients with normal controls and examine preliminary evidence of change in brain imaging parameters over time. Patients in this sample also received comprehensive neuropsychological assessments as well as resting state functional MRI which will be evaluated in relation to other neuroimaging findings. These data will allow us to investigate dysfunction in key neural networks of interest. To start the session, Dr. Nelson will review data regarding cognitive deficits in late life depression and will set the stage for a clinical audience by considering how these cognitive problems impact functioning and treatment response. Dr. Mackin will then present the data on cortical thickness, regional cerebral blood flow, amyloid deposition, and CSF biomarkers in older patients with depression and will relate these findings to the presence of cognitive deficits and longitudinal cognitive decline. Dr. Tosun will present data on dysfunction in neural circuits in late life depressed patients and implications for treatment.

Faculty Disclosures:
J. C. Nelson
Nothing to disclose

Scott Mackin
Nothing to disclose
STRATEGIES FOR REDUCING THE OVERUSE OF PRESCRIPTION DRUGS IN ELDERS: A FOCUS ON OPIOIDS AND BENZODIAZEPINES

Session 113
June C. Lee1; Mark D. Miller2; Jordan Karp3; Charles F. Reynolds3

1University of Hawaii, Honolulu, HI
2West Virginia University, Morgantown, WV
3University of Pittsburgh, Pittsburgh, PA

Abstract: Overuse of prescribed medications in vulnerable elders are associated with a range of morbidities including falls, hip fractures, cognitive impairment, delirium, polypharmacy, motor vehicle accidents, and overdose deaths. Older adults fill an average of 20 prescriptions annually with common problems that lead to potential morbidity including: mistaking side effects for new medical problems or aging, mistakes in taking meds as prescribed, declines in metabolism and excretion with advancing age, drug interactions, and inadvertent overdosing. The attributable risk for fall among elders over age 80 on any benzodiazepine (BZD) was 28.1% in a French study where 9% of the falls were fatal. Reducing or deprescribing efforts can be time consuming and difficult to achieve in usual practice, particularly primary care. The EMPOWER (Eliminating Medications through Patient Ownership of End Results) was pioneered in Montreal used specific targeted education. Results were promising with 64% of 74 year old subjects showing motivation to deprescribe. Of the 36% who did not show improved motivation for deprescribing were more likely to report poor health, a strong reliance on daily use for every day coping, and prior reassurance by the prescriber of their safety and necessity. This and other deprescribing strategies will be presented for discussion.

Faculty Disclosures:
June C. Lee
Nothing to disclose

Mark D. Miller
Nothing to disclose

Jordan Karp
Research Support: Pfizer—receipt of medication supplies for investigator initiated trial
Research Support: Indivior—receipt of medication supplies for investigator initiated trial

Charles F. Reynolds
Nothing to disclose

THE ORIGINS, PAST, PRESENT AND FUTURE OF GERIATRIC PSYCHIATRY

Session 114
Sanford I. Finkel

University of Chicago Medical School, Chicago, IL

Abstract: Diversity and Inclusivity: Achieving Excellence in Geriatric Mental Health—this is the perfect description of what AAGP has epitomized over the past yrs and is positioned to continue its creative leadership role for the next 40 yrs. My presentation to celebrate AAGP’s 40th birthday will be divided into 3 parts: Our development, accomplishments & problems:Since AAGP was established, what have been the major accomplishments in our field? How can we explain our
successes? What problems have we faced? How have they impacted our work and our directions? To what extent have we overcome them? A futuristic view of geriatric psychiatry: We are now a middle-aged organization. We have gone through significant growth spurts, & also have endured setbacks. Newer organizations have assumed roles that once were exclusively ours. We must ask ourselves: Is AAGP still relevant? If so, we are what are our unique contributions, organization’s future projects & goals? How can we best integrate our training, knowledge and experience into the evolving directions of society? What will clinical, research and teaching in geriatric psychiatry look like in forty years? How can we best prepare for the future? I will conclude with hypotheses on the activities of geriatric psychiatrists at the time of AAGP’s 80th birthday. Bio: Dr. Finkel is currently a Clinical Professor of Psychiatry at the University of Chicago Medical School. Previously, he was a Professor of Psychiatry at Northwestern University Medical School with Secondary Professorial appointments in the Departments of Neurology and Internal Medicine. As the Founder of AAGP, co-Founder of the American Psychiatric Association’s Council on Aging as well as the International Psychogeriatric Association. I have been privileged to witness and contribute to the birth, growth and development of our field. Our members have shared many successes, experienced many problems, and, nevertheless, are poised to participate in an exciting and worthwhile future. A practicing clinician and teacher of geriatric psychiatry for fifty years, he continues to be active in his field, innovating in a range of areas, including Behavior and Psychological Symptoms of Dementia, the use of telephone technology for caregivers, testamentary capacity and undue influence issues, the use of computers for memory training, agitation in nursing homes, and capitation for dually eligible elderly.

Faculty Disclosures:
Sanford I. Finkel
Nothing to disclose

UPDATES IN CLINICAL PRACTICE FOR THE CLINICIAN
Session 115
Marie DeWitt¹, Maureen Nash¹; Chanida Siripraparat³

¹Department of Veterans Affairs, Detroit, MI
²Providence ElderPlace, Portland, OR
³Behavioral Care Solutions, Traverse City, MI

Abstract: This presentation will provide an update on aspects of practice that are critical to the clinician. Focus will be paid to aspects of clinical care that are of increasing importance including opiate misuse and medications to address cognitive impairment. Important changes in business practices and policy including the PsychPRO and MACRA will also be highlighted.

Faculty Disclosures:
Marie DeWitt
Nothing to disclose

Maureen Nash
Nothing to disclose

Chanida Siripraparat
Nothing to disclose

CASE PRESENTATION 1
Session 200
Zelde Espinel, University of Miami Miller School of Medicine, Miami, FL

A GRAVESITE “CASITA” TO ENSHRINE HER HUSBAND’S URN: A TALE OF COMPLICATED GRIEF

Mavis Afriyie-Boateng, Sinai Health System, Toronto, ON, Canada
SEARCHING FOR HOME: INTEGRATING CULTURAL BELIEFS INTO THE CARE OF PATIENTS WITH BEHAVIORAL DISTURBANCES

Meera Balasubramaniam, NYU Langone Medical Center, New York, NY; Bellevue Hospital, New York, NY

“I’VE LIVED A GOOD LIFE AND SO I WANT TO DIE”: THE CASE OF MS. B

Faculty Disclosures:
Zelde Espinel
Nothing to disclose

Mavis Afriyie-Boateng
Nothing to disclose

Meera Balasubramaniam
Nothing to disclose

CATATONIA AND DELIRIUM: KISSING COUSINS OR NO RELATION
Session 201
Marie DeWitt¹; Jo Ellen Wilson²; Larry Tune³

¹Department of Veterans Affairs, Detroit, MI
²Vanderbilt University School of Medicine, Nashville, TN
³Emory University School of Medicine, Atlanta, GA

Abstract: Catatonia and delirium occur more frequently that is recognized by clinicians. Complicating the situation is that catatonia and delirium can co-occur and due to the potential for similar presentations, their is risk for misdiagnosis. There is some suggestion that the two conditions are more closely related than previously thought, at least phenomenologically. This presentation will share information from the literature, research, and clinical experience to further explore the of delirium and catatonia.

Faculty Disclosures:
Marie DeWitt
Nothing to disclose

Jo Ellen Wilson
Nothing to disclose

Larry Tune
Nothing to disclose

CULTURAL DEPICTIONS OF RESILIENCE IN THE FACE OF INEVITABLE FAMILY DISSOLUTION IN THE FILMS “MAKE WAY FOR TOMORROW” AND “TOKYO STORY”
Session 202
Francis G. Lu

UC Davis, Cupertino, CA

Abstract: Elderly parents visit their grown children who are too busy with their own work and families to respect or care for them as they go from one to another and temporarily live separately. In contrast, either complete strangers or a more distant family member show compassion. Seeking solace through their love for each other and recognizing their place in the larger
world, the father and mother accept their fates and finally part poignantly for the last time. This media session will compare and contrast two film depictions—one American and one Japanese—of this common life scenario, making it evident that it is a universal story that challenges every culture’s resilience in the face of inevitable family dissolution. “Make Way for Tomorrow” is a 1937 Hollywood film by Leo McCarey that inspired both director Yasujiro Ozu and screenwriter Kogo Noda to create “Tokyo Story” in 1953. The former was a near-forgotten film that entered the U.S. National Film Registry in 2010, whereas the latter was ranked as the Greatest Film of All Time in the 2012 Directors’ poll of Sight and Sound magazine conducted every 10 years. In the American film set in the Great Depression, the mother and father face the harshness of their situation with fond recollection of a happier time, whereas the Japanese film is suffused with the serene acceptance of the transience of life through the contemplative, compassionate love of the Eternal Now. The session will show extended clips from both films and provide the opportunity for participants to reflect on and share their own experience of the films. Session Timeline: Introduction to the session and processing: 5 minutes Introduction to “Make Way for Tomorrow” including genogram: 5 minutes Extended clips of “Make Way for Tomorrow” with brief commentary: 20 minutes Processing: 6 minutes a. Silent reflection on the film experience focused on moving moments: 1 minute b. Journaling: 2 minutes c. Dyadic sharing: 3 minutes Introduction to “Tokyo Story” including genogram: 5 minutes Extended clips “Tokyo Story” with brief commentary: 35 minutes Processing: 6 minutes a. Silent reflection on the film experience focused on moving moments: 1 minute b. Journaling: 2 minutes c. Dyadic sharing: 3 minutes Large group discussion: 8 minutes

Faculty Disclosures:
Francis G. Lu
Nothing to disclose

MEET ME WHERE I AM: EXPANDING THE REACH OF MENTAL HEALTH SERVICES WITH HOME AND COMMUNITY-BASED SERVICES

Session 203
Renee Pepin1; Martha L. Bruce1; Jo Anne Sirey2; Kimberly A. Van Orden3; Yeates Conwell3

1Geisel School of Medicine at Dartmouth, Hanover, NH
2Weill Cornell Medical College, White Plains, NY
3University of Rochester, Rochester, NY

Abstract: Older adults with mental health concerns are less likely than younger adults to present for care in specialty mental health clinics. Given the negative effects of untreated mental health problems in later life on quality of life, physical health, health care costs, and longevity, the use of alternate treatment models that can be applied outside the clinic are needed. In this symposium, we will discuss several innovative community-based mental health service delivery models that “meet older people where they are.” Existing service delivery systems provide opportunities for reaching older adults who could benefit from mental health care. Utilizing those systems could address barriers to mental health treatment, including stigma, transportation, accessibility, and motivation to engage. In line with the conference theme of diversity and inclusivity, we will discuss how community interventions have the potential to reach diverse populations of older adults, including those of diverse racial/ethnic backgrounds, lower SES groups, and those who are homebound. Two of our presentations concern adapting evidence based interventions, including adaptations to address diverse settings, diverse staff training levels, and needs of racially and ethnically diverse populations. The other involves testing an existing aging services program as a means of mental health promotion. Dr. Pepin will present on the integration of depression identification and intervention into Home Delivered Meal services. One innovation she will discuss involves tailoring the program to fit within existing Meals on Wheels services: the intervention is framed within concerns that are relevant to the organization (i.e., social isolation) and screening is embedded into routine Meals on Wheels services. Additionally, this intervention leverages technology and lay coaches by providing Behavioral Activation through video conferencing. Dr. Sirey will present on the integration of a brief psychotherapy into services provided by senior centers. The goal of the program is to engage racially/ethnically diverse older adults into mental health treatment. Innovations she will speak about include incorporating bilingual staff into senior centers using a model that integrates community outreach, assessment and direct service to reduce the stigma of accessing mental health services. Results of a preliminary study are promising with most older adults completing all six therapy sessions (74%) and demonstrating an average drop in PHQ-9 scores of 7.5. Dr. Van Orden will present on an existing intervention model—Senior Corps—that is not typically conceptualized as a mental health intervention. The mission of the Senior Corps is to connect adults age 55 and older with service opportunities in their communities to capitalize on the experience, wisdom and skills of older adults. In particular, Dr. Van Orden will speak on the Senior Companions model, which involves older adults serving as peer companions for other older adults. She will describe results of a completed RCT demonstrating that lonely older adults who receive peer
companionship for one year report reduced depressive and anxiety symptoms and are less likely to feel like a burden on others. She will also describe an intervention that is underway to test the impact of providing peer companionship to homebound older adults as a means to reduce loneliness and improve mental health and quality of life. Dr. Bruce will serve as the discussant to help us synthesize and integrate the presentations. She will engage the audience in a consideration and discussion of developing interventions in collaboration with community infrastructures that will increase both effectiveness and potential scalability of the interventions.

Faculty Disclosures:
Renee Pepin
Nothing to disclose

Martha L. Bruce
Nothing to disclose

Jo Anne Sirey
Nothing to disclose

Kimberly A. Van Orden
Nothing to disclose

Yeates Conwell
Nothing to disclose

MOOD, BRAIN AND AGING: THE VALUE OF LONGITUDINAL APPROACHES IN GERIATRIC PSYCHIATRY
Session 204
Olivia Okereke1;2; Rob Kok3; Mathieu Vandenbulcke4; Nancy J. Donovan5;6

1Brigham and Women’s Hospital, Boston, MA
2Harvard T. H. Chan School of Public Health, Boston, MA
3Parnassia Psychiatric Institute, Rotterdam, Netherlands
4University of Leuven, Leuven, Belgium
5Brigham and Women’s Hospital, Boston, MA
6Harvard Medical School, Boston, MA

Abstract: Growing attention within the field of geriatric psychiatry has been directed toward the changing risks, outcomes and needs of older adults across time. For example, the growing focus on healthspan—as opposed to mere lifespan—has signaled the need for understanding how to maintain better overall trajectories of mood into later life. Similarly, it is increasingly important to measure the long-term impacts of mood on biological aging and overall health among older adults. In addition, the fields of cognitive aging and dementia science have evolved considerably in recent years toward a focus on maintaining more favorable cognitive profiles over time and preventing cognitive decline—critical objectives in the fight against Alzheimer and other neurodegenerative diseases. Thus, there is particular value in charting the longitudinal trajectories of these outcomes while using well-characterized samples in which mood, cognition and relevant brain and biological markers have been captured. The goal of this session is to illustrate the importance of charting long-term outcomes in geriatric psychiatry, particularly at the intersections of mood, brain health and biological aging. Dr. Olivia Okereke (Chair) will present results of a decade-spanning, bi-directional study of depressive symptom trajectories and biological aging, as indexed by the molecular marker of leukocyte telomere lengths, within a large sample of epidemiologic cohort study participants. Dr. Rob Kok will address the high-impact clinical question of the relation of plasma lithium levels and long-term illness control over 6 years among older compared to younger patients with bipolar disorder. Dr. Mathieu Vandenbulcke will present on the brain biomarkers of hippocampal volume and cortical amyloid and their differential value in distinguishing late-life depression vs. manifestations of Alzheimer disease. Dr. Nancy Donovan will describe how baseline brain amyloid relates to the emergence of a mood outcome of anxious-depressive features within a sample of initially cognitively normal older adults who were followed for up to 5 years. Finally, Dr. Donovan (Discussant) will lead the speakers in a panel discussion, along with Q&A involving session attendees.
ON THE MOVE: AN UPDATE ON TARDIVE DYSKINESIA
Session 205
Stephanie Hrisko; Josnel H. Faiivae; Shilpa Srinivasan

Palmetto Health/USC, Columbia, SC

Abstract: Tardive dyskinesia (TD) affects 20–50% of patients treated with antipsychotic medications. The iatrogenic nature of TD was initially unrecognized when antipsychotics were first introduced in the 1950s. However, substantial research has since been conducted to elucidate the prevalence, risk factors, possible pathophysiology, and assessment of TD. Unfortunately, TD is potentially irreversible making prevention the primary mechanism for decreasing its prevalence. Extant literature suggests differences between races and genders in rates of TD. There also appears to be a dose (mean and cumulative)-response relationship between neuroleptics and development of TD as well as an increased risk with typical versus atypical antipsychotics. Other factors potentially impacting development of TD include Major Depressive Disorder, substance use disorders, movement disorder at baseline, history of ECT, diabetes, smoking, and genetic predisposition. While there is much yet to discover, proposed underlying mechanisms for the development of TD include hypersensitivity of nigrostriatal dopamine receptors after chronic blockade by neuroleptics, impaired synaptic plasticity, neurotoxicity due to oxidative stress, and genetic mutations. Subsequently, dopamine-depleting agents, benzodiazepines, anticholinergics, and antiepileptics have been researched as possible pharmacotherapies to ameliorate TD. Recently, however, the FDA has improved the first medication for treatment of TD. Valbenazine inhibits vesicular monoamine transporter type 2 (VMAT2) which decreases monoamine uptake into synaptic vesicles and depletes monoamine stores. Because of its novelty, cost can be prohibitive for some patients; however, it may provide relief for some patients for whom other treatments have thus far failed. Because of the potential long term effects of TD on patients’ overall well-being, it is important for clinicians to be vigilant regarding selection of antipsychotic medication, assessment of TD and available treatments for TD.

Faculty Disclosures:
Stephanie Hrisko
Nothing to disclose

Josnel H. Faiivae
Nothing to disclose

Shilpa Srinivasan
Nothing to disclose
Abstract: Psychopharmacology is complex with many theories explaining mechanisms of action and drug-drug interactions, but relatively few conclusive studies. This lack of high quality evidence often leads to misconceptions and possibly false beliefs, as well as perpetuation of anecdotal experiences with medications. This presentation aims to examine several commonly used medications in geriatric psychiatry and compare the existing evidence to theoretical effects and drug-drug interactions. We will also compare and contrast available evidence to support or refute theories and anecdotal experiences. Finally, we will explore several practice guidelines, the sources for establishing these guidelines, and the level of evidence to support them.

Faculty Disclosures:
Jessica Broadway
Nothing to disclose

Amy Hebbard
Nothing to disclose

RESEARCH AWARD SESSION: BEHAVIORAL SYMPTOMS IN DEMENTIA: ETIOLOGY, INTERVENTION, AND FUTURE DIRECTIONS
Session 207
Jiska Cohen-Mansfield, PhD
Tel-Aviv University, Jerusalem, Israel

Abstract: Behavioral symptoms manifested by persons with dementia are often indicative of their discontent, and impact both them and their caregivers by increasing burden on caregivers and often resulting in restrictive or inappropriate care. Understanding the etiologies of behavioral symptoms and the principles of person-centered care can prevent many such behaviors and assist in treating others. Three major theoretical frameworks have guided the understanding of the etiology of behavioral symptoms: Behavioral theory, Lower Environmental Stress Threshold, and the unmet needs model. Each theory has specific implications for care. For proper preventive care, several principles need to be clarified. These pertain to the relationship between type of behavior manifested and type of underlying need, the continuous nature of human needs, and the tailoring necessary for optimizing interventions. The common needs pertain to relief from pain and discomfort, need for social contacts to counter loneliness, and the need for engagement to counter boredom. The Comprehensive Process Model of Engagement highlights the factors affecting engagement in persons with dementia. This model has been extended to describe the factors impacting group activities. The presentation will illustrate research findings that support principles of care and prevention of behavioral symptoms, the actual delivery of care, as well as the structural and care requirements needed to achieve good care. Acknowledgement of the diversity among persons with dementia and caregivers, the need for assuring dignity of both, support of caregivers in applying research findings, flexibility in care processes, and collaboration among formal and informal caregivers as well as within the interdisciplinary team are some of the ingredients necessary for improving quality of care of persons with dementia.

Faculty Disclosures:
Jiska Cohen-Mansfield
Nothing to disclose

THERAPEUTIC STRATEGIES IN DEPRESSION WITH COGNITIVE IMPAIRMENT
Session 208
Davangere P. Devanand1; Charles F. Reynolds2; Gregory H. Pelton3; P. Murali Doraiswamy4; Benoit H. Mulsant5;6; Sarah S. Morimoto7; George S. Alexopoulos8; Faith Gunning9; Bruce E. Wexler9
1Columbia University College of Physicians and Surgeons, New York, NY
2University of Pittsburgh, Pittsburgh, PA
3Columbia University Medical Center, New York, NY
4Duke University Medical Center, Durham, NC
5Department of Psychiatry, University of Toronto, Toronto, ON, Canada
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8NIMH Mental Health Research Institute, Ann Arbor, MI
9Center for Clinical Brain Sciences, College of Physicians and Surgeons, University of Columbia, New York, NY

18 Am J Geriatr Psychiatry 26:3, Supplement 1
Abstract: Dr. Reynolds will introduce and review pathways from depression to dementia, with a specific focus on pathophysiological factors that may mediate risk. The literature in this area is increasingly addressing cellular, subcellular and molecular factors that may be involved in risk mediation. "Bottom-up," data-driven approaches, such as the use of proteomics, are beginning to shed light on possible mediational pathways. Although still early, such research is important because of its potential to identify critical points for possible interventions to reduce risk for dementia in persons who have experienced depression. A type of work increasingly reflects the relevance of geroscience to geriatric mental health. Depressed patients with cognitive control deficits or CCD show lower remission rates. Dr. Morimoto and colleagues designed a "neuroplasticity based computerized cognitive remediation (nCCR)" and tested it in 42 patients with established failure to respond to at least one antidepressant trial, of whom 36 patients were randomized, double-blind, to four weeks (30 hours) of nCCR against an active, matched control condition. Mixed effects model analysis group x time interaction reached significance (F(1,61.8) = 11.37, p = .002) indicating that the slope of decline in MADRS depression scores was steeper in the nCCR-GD group. Further, the nCCR group improved their semantic clustering strategy (p = .006), as well as related, but not targeted, CCD functions over the control condition. NCCR improves depression and CCD in elderly depressed patients refractory to other treatments, and needs to be considered in the treatment of these patients. In the DOTCODE study conducted at Columbia and Duke Universities, Dr. Devanand and colleagues treated 79 patients with comorbid depression and cognitive impairment with open-label antidepressant medication for 16 weeks followed by double-blind add-on donepezil (5 to 10 mg daily) or placebo for an additional 62 weeks. In the initial 16 weeks, 64% met antidepressant responder criteria. In the 61 patients who were randomized, donepezil did not differ from placebo in change in ADAS-Cog13 and SRT Total Immediate Recall. Apolipoprotein E genotype was not related to improvement on donepezil, and MRI indices of hippocampal volume and periventricular hyperintensities were unrelated to cognitive improvement. The results in patients with depression and cognitive impairment are consistent with findings from studies in mild cognitive impairment without depression that have not demonstrated superiority for cholinesterase inhibitors over placebo in improving cognition. Dr. Benoit Mulsant will discuss the background, rationale, and implementation challenges of a new high-risk, high-gain randomized clinical trial (RCT) aimed at enhancing cognitive reserve and preventing cognitive decline and dementia in a high-risk population. The Preventing Alzheimer’s dementia with Cognitive remediation plus tDCS in MCI and Depression (PACt-MD) study is an RCT that assesses the efficacy of a preventive intervention for AD in three high risk groups of older persons with: (1) Mild Cognitive Impairment (MCI); (2) major depressive disorder (MDD) in remission without MCI; or (3) MDD in remission and MCI. The PACt-MD intervention is a combination of computer-based cognitive remediation (CR) delivered in a group format and non-invasive brain stimulation—transcranial Direct Current Stimulation (tDCS). Five academic sites in Toronto will enroll and randomize 375 older participants who have MCI or a history of MDD. Under double-blind conditions, these participants will be randomized to receive either tDCS + CR or sham tDCS + sham CR five days a week for two months and then 5 days every 6 months for 24–60 months. Both CR and tDCS have been shown to induce neuroplasticity and improve cognition. The hypothesis is that their combination enhances cognitive reserve and protects against cognitive decline.
BRAIN AND BIOLOGICAL MARKERS OF AGING IN LATE-LIFE MOOD DISORDERS:
IMPLICATIONS FOR UNDERSTANDING AND TREATING GERIATRIC DEPRESSION AND
BIPOLAR DISORDER
Session 210
Olu Ajilore¹; Lisa T. Eyler²,³; Sara Weisenbach⁴,⁵; Brent Forester⁶; Michael Rohan⁷; David Harper⁸

¹University of Illinois-Chicago, Chicago, IL
²University of California, San Diego, La Jolla, CA
³VA San Diego Healthcare System, San Diego, CA
⁴University of Utah, Salt Lake City, UT
⁵VA Salt Lake City, Salt Lake City, UT
⁶McLean Hospital, Boston, MA

Abstract: With the graying of the world’s population, there is a demographic imperative to understand how the aging process interacts with mood disorders in order to maximize functioning of older adults with depression and bipolar disorder. The study of brain and blood-based biological measures can enhance our knowledge of the unique factors that influence the late-life course if mood disorders and suggest novel intervention targets. The proposed session will present findings from state-of-the-art research studies on aging-related biomarkers in depression and bipolar disorder. Ajilore will speak about the interplay of inflammation, hippocampal volume, and white matter abnormalities in late-life depression. Eyler will present findings from an ongoing study of cognitive aging in bipolar disorder about the role of inflammation in clinical and cognitive symptoms of the disorder. Weisenbach’s presentation will focus on alterations of intrinsic network function in late-life depression and how they relate to cognitive performance deficits. Finally, Forester will present initial results from an experimental trial of magnetic stimulation that aims to improve symptoms and change brain function in those with geriatric bipolar depression. Together, these findings contribute to our growing understanding of the importance of neural and biological mechanisms that underlie the disease and aging process in those with late-life mood disorders. The session will conclude with a discussion of how this work and related efforts in the field can make possible novel interventions that target biological and brain dysfunction in order to enhance functioning among older adults living with mood disorders.

Faculty Disclosures:
Olu Ajilore
Nothing to disclose
DEVELOPING YOUR CLINICIAN / EDUCATOR CAREER
Session 211
Dennis M. Popeo1; Elizabeth J. Santos2; Brandon Yarns3; Alessandra Scalmati4; Esther Rollhaus4

1NYU School of Medicine, New York, NY
2University of Rochester School of Medicine and Dentistry, Rochester, NY
3UCLA—David Geffen School of Medicine, Los Angeles, CA
4Albert Einstein College of Medicine, Bronx, NY

Abstract: Numerous members of the AAGP, specifically those involved in the teaching and training committee identified a need for the organization to better support members on the clinician / educator track (C/ET) in academic institutions. This is not surprising, as a general lack of support for those in the C/ET has been noted in the literature. (1) (2) In order to help meet this need, we propose a special 2 hour symposium entitled “Developing Your Clinician / Educator Career.” This matches a similar symposium currently geared towards members interested in a research career. In our symposium, we will present topics of interest to clinician educators including on creating effective, successful lectures; making better use of technology in teaching; present skills on giving feedback, taking feedback, successful self-promotion and allowing participants to practice them, while encouraging networking for support and scholarly collaboration. Dennis Popeo will introduce the program and discuss how to make the most of your mentorship relationship. Dr. Elizabeth Santos will lead the learners in an exercise to consider and connect with possible mentors. Brandon Yarns, Allesandra Scalmati, and Esther Rollhaus will discuss how to develop and implement a needs assessment and plan a new curriculum. They will also describe an example of this in action.

Faculty Disclosures:
Dennis M. Popeo
Nothing to disclose

Elizabeth J. Santos
Nothing to disclose

Brandon Yarns
Nothing to disclose

Alessandra Scalmati
Nothing to disclose

Esther Rollhaus
Nothing to disclose
MANAGING ANTIPSYCHOTIC MEDICATION RISKS IN ELDERLY WITH MAJOR NEUROCOGNITIVE DISORDER (MNCD), STROKE AND PSYCHOSIS

Session 213
Helen H. Kyomen¹,²; Tatyana Zharkova³; James M. Ellison⁴,⁵; Robert Boland⁶

¹McLean Hospital/Harvard Medical School, Belmont, MA
²St. Elizabeth’s Medical Center/Boston University School of Medicine, Boston, MA
³St. Elizabeth’s Medical Center/Tufts University School of Medicine, Boston, MA
⁴Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA
⁵Christiana Care Health System, Wilmington, DE
⁶Brigham and Women’s Hospital/Harvard Medical School, Boston, MA

Abstract: In this session, three cases illustrating the treatment dilemmas associated with the use of antipsychotic medication in elderly patients with MNCD, stroke and psychosis will be presented. Through discussion of their evaluation and treatment, participants will learn to prioritize indications for the use of antipsychotic medication, identify and implement appropriate alternatives to the use of antipsychotic medication, manage the neurologic and cardiovascular stroke risks associated with antipsychotic medication use and manage antipsychotic medication related metabolic syndrome which can increase stroke risk.

Faculty Disclosures:
Helen H. Kyomen
Nothing to disclose

Tatyana Zharkova
Nothing to disclose

James M. Ellison
Nothing to disclose

Robert Boland
Nothing to disclose

SOCIOCULTURAL PERCEPTIONS OF NORMAL AGING—A REVIEW AND MEDIA PRESENTATION

Session 214
Ali Asghar Ali¹; Kristin C. Jones¹; Francis G. Lu²

¹Baylor College of Medicine, Houston, TX
²University of California—Davis, Sacramento, CA

Abstract: Though aging is both a complex and individualized process it is fraught with stereotypes. These stereotypes not only influence the interactions others have with older adults but also the interactions older adults have with each other. Stereotypes, which can be both negative (more common) and positive have been shown to influence older adult cognitive and non-cognitive domains. Intel Corporation carried out the multi-year Global Aging Experience Study to gain an understanding of the social and cultural differences in people’s experiences of aging and health. Despite noting varied experiences, several common themes emerged, i.e., “people want to focus on what they CAN do, not what they can’t,” “aging in place means more than staying at home,” “health is not an objective quality, it’s defined collaboratively and culturally,” and “healthy aging is inextricably linked to social participation.” These and other similar findings can help develop a greater appreciation of older adults’ experiences and inform policy decisions. During this workshop we will review normative aging experiences from a sociocultural perspective. The review will include global views on aging along with impact of aging stereotyping on older adult health. After all, most societies define old age as a change in social role rather than by biological or chronological markers. Thereafter, using visual media, the presenters will illustrate the diversity of the aging experience. Specifically, “The Best Exotic Marigold Hotel” which portrays aging from many dimensions among a group of British retirees living in India and “Having Our Say: The
Delany Sisters’ First 100 Years,” which explores the experiences of two African-American centenarians as they reflect on discrimination, prejudice, and social injustices. The session will conclude with summary remarks and discussion led by an internationally recognized authority on cultural psychiatry and the current treasurer for the Society for the Study of Psychiatry and Culture.

Faculty Disclosures:
Ali Asghar Ali
Nothing to disclose

KRISTIN C. JONES
Nothing to disclose

Francis G. Lu
Nothing to disclose

SUBSTANCE ABUSE IN OLDER ADULTS
Session 215
Marie DeWitt1; Karen Reimers2,3

1Department of Veterans Affairs, Detroit, MI
2University of Minnesota, Minneapolis, MN
3Hazelden Betty Ford Foundation, St. Paul, MN

Abstract: Increasing numbers of older adults are abusing drugs and alcohol in their later years. Identifying substance abuse in older adults can be challenging as can treatment given common medical comorbidities and psychosocial factors facing older adults. This presentation will present information regarding demographic trends and through cases will discuss the identification and management of substance use among older adults.

Faculty Disclosures:
Marie DeWitt
Nothing to disclose

Karen Reimers
Nothing to disclose

TREATMENT ISSUES IN ELDERLY PATIENTS WITH SEVERE MENTAL ILLNESS
Session 216
Brian Tsuzaki1,2; Daryl Fujii1,2; Kara Lum1,2

1VA Pacific Island Health Care System, Honolulu, HI
2JABSOM Department of Psychiatry, Honolulu, HI

Abstract: Treating elderly SMI patients is a challenge for geriatric psychiatrists as mental health care is complicated by multiple co-morbid medical conditions and cognitive deficits. Implications for this complexity include psychotropic prescribing practices that are heavily impacted by medical co-morbidities, and increased need for inpatient medical services and assisted living placements including nursing homes. Despite increased medical morbidity, challenges exist for SMI receiving appropriate medical care. For example, medical providers are often reluctant or uncomfortable providing care to SMI patients due to a lack of training, a lack of exposure, and negative perceptions of patients suffering from mental illness. Even if medical treatment is available, SMI patients may refuse treatment or lack capacity to make medical decisions which could complicate service delivery. This symposium discusses three health care issues for elderly SMI patients: 1) providing psychiatric treatment in elderly SMI patients with multiple medical co-morbidities, 2) providing psychological treatment of SMI patients residing in
nursing homes, and 3) medical decision-making in SMI patients who lack capacity and have no usual options for a designated surrogate.

Faculty Disclosures:
Brian Tsuzaki
Nothing to disclose

Daryl Fujii
Nothing to disclose

Kara Lum
Nothing to disclose

CARING FOR THE AGING VIETNAM VETERAN: A PRIMER FOR NON-VA CLINICIANS
Session 300
Maria Llorente1,2; Ebony Dix3; Marie DeWitt4

1Dept of Veterans Affairs, VISN 5, Linthicum, MD
2Georgetown University School of Medicine, Washington, DC
3West Virginia University School of Medicine, Morgantown, WV
4Department of Veterans Affairs, Detroit, MI

Abstract: The mean age of Veterans is 65 with the majority of current Veterans having served during the Vietnam War. This presentation will discuss a variety of experiences that have caused the Vietnam Veterans to age unlike any other Veteran cohort. Specifically, the consequences of exposure to Agent Orange, presentation of PTSD, and the comorbid mental health, cognitive, and substance misuse will be discussed

Faculty Disclosures:
Maria Llorente
Nothing to disclose

Ebony Dix
Nothing to disclose

Marie DeWitt
Nothing to disclose

CHALLENGING BEHAVIORS IN DEMENTIA CARE: RECOGNIZING UNMET NEEDS—A POSITIVE APPROACH TO CARE (TM) SEMINAR
Session 301
Dorothy Kolby

Abstract: Learn to understand which physical and emotional needs can cause challenging behaviors. Learn hands-on techniques to connect and comfort using visual, verbal, physical and emotional connections. Learn to develop new skills related to approach, cueing, and ability to connect with people affected by dementia to help reduce the chance of future escalations and make your person with dementia feel at ease.

Faculty Disclosures:
Dorothy Kolby
Nothing to disclose
FROM ADMISSION TO END OF LIFE: EDUCATION AND TRAINING FOR STAFF AND CAREGIVERS IN DEMENTIA CARE IN LONG TERM CARE SETTING

Session 302
Maritza Buenaver1; Sheni Meghani2

1VA Eastern Kansas Healthcare System, Topeka, KS
2VA Eastern Kansas, Topeka, KS

Abstract: We provide care to persons with dementia within long term care settings called Community Living Centers at the VA Medical Center in Topeka, KS. We will describe strategies developed and implemented in this setting to provide education to paid and unpaid caregivers in dementia care. Educational emphasis is on verbal and non-verbal communication skills, management of behaviors and end-of-life care for persons with dementia in long term care settings. We would divide this symposium into two presentations: 1. During the first presentation, we will describe projects implemented at the VA Medical Center to educate and train staff in long term care setting on methods to effectively communicate both verbally and nonverbally with persons with dementia, non-pharmacological management of behavioral and psychological symptoms of dementia. We will also describe educational programs targeted towards family members and informal caregivers as they care for persons with dementia; aimed to provide them with essential tools on communication. 2. During the second presentation, we will describe the simulation-based training on end-of-life care provided to our nursing staff. We will discuss the various components of this training including didactic portion of palliative and hospice care, education on use of clinical protocol to assess and document care needs of terminally ill persons with dementia, use of various medications to manage symptoms at the end of life and hands-on application of skills and knowledge on a computer-controlled manikin. We will discuss our observations and the outcomes of this training as evaluated using an observer tool and self-assessment by the participants.

Faculty Disclosures:
Maritza Buenaver
Nothing to disclose

Sheni Meghani
Nothing to disclose

GAY AND GRAY VIII: IMPROVING THE MENTAL HEALTHCARE OF OLDER LESBIAN, GAY, BISEXUAL, AND TRANSGENDER PATIENTS THROUGH APPRECIATION OF THEIR DIVERSE, INTERSECTING SOCIAL IDENTITIES

Session 303
Lisa T. Eyler1,2; Brandon Yarns3,4; Chadrick Lane5; Seon Kum3; Daniel D. Sewell6

1University of California, San Diego, La Jolla, CA
2VA San Diego Healthcare System, San Diego, CA
3UCLA, Los Angeles, CA
4Greater Los Angeles VA Healthcare System, Los Angeles, CA
5Yale University, New Haven, CT
6UC San Diego, La Jolla, CA

Abstract: Lesbian, gay, bisexual, and transgender (LGBT) older adults seeking mental healthcare are a diverse group, and individual LGBT patients and caregivers have many intersecting social identities—as sexual minorities, older adults, and mental health patients. In addition, individual patients and caregivers may have other relevant social identities as a result of membership in a racial/ethnic minority group, an immigrant group, a profession, or some other characteristic. Placing patients in unitary categories such as “gay,” “black,” “old,” or “poor,” even while intending to convey openness and inclusivity, may result in overt stereotyping or implicit bias. Intersectionality theory, which emphasizes that people have multiple intersecting identities that may affect how they relate to one another, will be presented as a key to providing more inclusive geriatric mental healthcare. The session will begin with a traditional lecture introducing and defining intersectionality theory, describing its
history, and exploring its clinical applicability. The intersecting social identities of older LGBT adults and research findings on their mental health effects—both positive and negative—will then be discussed. A case presentation will illustrate how practically to apply the rubric of intersecting social identities toward providing care that is more culturally sensitive and inclusive for patients and their caregivers. A key point involves recognizing that social identities are often the source of personal strengths as well as potential liabilities such as discrimination. For example, an identity as an older adult begets experience and wisdom in addition to the risks of frailty, disability, or ageism. Furthermore, the intersecting identities of being both gay and an older adult may lead to even more resilience based on surviving many years of social stress during less open-minded times. Allowing for subjective experience while using intersecting identities to help patients and caregivers develop resilience, self-value, and a stable self-definition will be emphasized. The session will conclude with an opportunity for the audience to ask questions and/or share their experiences.

Faculty Disclosures:
Lisa T. Eyler
Nothing to disclose

Brandon Yarns
Nothing to disclose

Chadrick Lane
Nothing to disclose

Seon Kum
Nothing to disclose

Daniel D. Sewell
Other: ActivCare, Inc. - Medical Advisory Board Member
Research Support: DHHS/HRSA Geriatric Workforce Enhancement Program Grant—Co-PI
Research Support: NIH-Alzheimer’s Association-Lilly—IDEAS Study Clinician Participant

HERBAL MEDICINE USE AMONG ELDERLY ETHNIC MINORITY GROUPS
Session 304
Isis Burgos-Chapman\textsuperscript{1,2}; Nery A. Diaz\textsuperscript{3,4}; Aarti Gupta\textsuperscript{5,6}; Steven Starks\textsuperscript{7}

\textsuperscript{1}Cornell Scott Hill Health Center, New Haven, CT
\textsuperscript{2}Yale School of Medicine, New Haven, CT
\textsuperscript{3}Columbia University, New York, NY
\textsuperscript{4}Audubon Clinic, New York, NY
\textsuperscript{5}Yale University School of Medicine, New Haven, CT
\textsuperscript{6}Connecticut Valley Hospital, Middletown, CT
\textsuperscript{7}Baylor College of Medicine, Cypress, TX

Abstract: The individual use of herbal medicines has been steadily increasing over the years yet it is often not disclosed to medical providers. Likewise, physicians and other providers often do not ask about patient use of such Complementary and Alternative Medicines (CAM). This nondisclosure of herb and vitamin/mineral supplement use can place elderly patients at risk of med-med interactions and create significant health risks for this population. Furthermore, it has been noted that herbal medicine use seems to vary by ethnicity. Certain elderly patients have the notion that these “natural” products can have anti-dementia properties or be helpful in treating other psychiatric conditions. This session will aim to explore how the use of herbal medicines differs among certain elderly minority groups and to identify the potential health concerns associated with the use of herbal medicines within this population.

Faculty Disclosures:
Isis Burgos-Chapman
Nothing to disclose
INTERNATIONAL MEDICAL GRADUATES AND A CAREER AS A GERIATRIC PSYCHIATRIST

Session 305
Amita Patel1; Iqbal Ahmed2; Rajesh Tampi3,4; Silpa Balachandran5; Amita Patel1; Rajesh Tampi3,4

1Wright State University Boonshoft School of Medicine, Dayton, OH
2Tripler Army Medical Center, Honolulu, HI
3Case Western Reserve University School of Medicine, Cleveland, OH
4Yale School of Medicine, New Haven, CT
5Case Western Reserve University (MetroHealth) Psychiatry, Cleveland, OH

Abstract: The population of the United States is aging. Currently people over the age of 65 years constitute 13% of the general population. By 2050 this number will rise to about 25% of the population. As the population ages, the number of older adults with mental illness will also rise. Available data indicates that there are inadequate numbers of trained geriatric psychiatrists in United States to care for older adults with mental illness. The additional burden for services in the future on an already strained healthcare system can lead to catastrophic failure of the system. International Medical Graduates (IMGs) constitute almost half of the work force of geriatric psychiatrists. The IMGs have had successful career as clinicians, educators, academics and researchers in geriatric psychiatry. In this symposium we will define who is an International Medical Graduate (IMG). We will describe how IMGs can obtain ACGME accredited training positions in psychiatry followed by fellowship training in geriatric psychiatry. We will then discuss the role of the IMGs in care of older adults with psychiatric illness in United States. We will also review the roles of IMGs as private practitioners, educators, as academicians and as researchers. We will enumerate how organizations like the AAGP can play a pivotal role in attracting greater number of IMGs to join the geriatric psychiatry workforce and also the AAGP.

Faculty Disclosures:
Amita Patel
Nothing to disclose

Iqbal Ahmed
Nothing to disclose

Rajesh Tampi
Nothing to disclose

Silpa Balachandran
Nothing to disclose

Amita Patel
Nothing to disclose

Rajesh Tampi
Nothing to disclose
NOVEL COGNITIVE ENHANCEMENT STRATEGIES IN AGING: INTEGRATING COMPUTERIZED AND PHARMACOLOGIC APPROACHES

Session 306
Faith Gunning1; Julie A. Dumas2; Paul Newhouse3,4

1Weill Cornell Medicine, New York, NY
2University of Vermont, Burlington, VT
3Vanderbilt University Medical Center, Nashville, TN
4TVHS VA Medical Center, Nashville, TN

Abstract: Impairment of functioning within specific cognitive domains appears to be a critical factor in the progression and course of neuropsychiatric illness and in age-related cognitive dysfunction. Standard disease treatments and efforts to mitigate symptoms have had only limited benefit across a number of age-related neuropsychiatric disorders, it has become clear that to substantially improve symptomatology and alter disease course will require a broader effort with novel technologies focused on modifying cognitive operations and/or improving cognitive performance in specific cognitive domains using integrated approaches. Novel pharmacologic approaches involve exploitation of receptor properties that are specific to neurochemical systems involved in certain cognitive operations, e.g. attention and working memory. Exploration of repurposed medications may have specific benefits to certain cognitive processes, as these approaches may be orthogonal to diagnosis. In addition, neuroplasticity-based cognitive remediation strategies using computerized approaches are also targeting specific cognitive domains that are disease relevant. Thoughtful combinations of these approaches will accelerate the development of both new and repurposed pharmacologic tools with rapidly developing computerized training using novel tools and devices to accelerate cognitive enhancement approaches. Brain imaging, broadly defined may be a critical assessment methodology to evaluate proof of concept trials that involve either one or both approaches. This session will explore new efforts to develop new pharmacologic and cognitive tools that are specifically aimed at enhancing certain cognitive operations including attention, working, and episodic memory that may have applicability to specific domains in cognitive aging, dementia, depression, and schizophrenia. Novel small molecule development, repurposed non-psychiatric medications, and computerized neuroplasticity-based training approaches will be discussed. Spanning the three presentations will be utilization of functional biomarkers including EEG methods and MRI/fMRI to validate target engagement and cognitive mechanisms as well as individual genetics to evaluate the potential for therapeutic effects of particular interventions.

Faculty Disclosures:
Faith Gunning
Nothing to disclose

Julie A. Dumas
Nothing to disclose

Paul Newhouse
Nothing to disclose

ORAL PRESENTATION 1: NON-PHARMACOLOGICAL INTERVENTIONS
Session 307

Smita Varshney, Alzhacare, Rome, GA

A TWO-YEAR FOLLOW-UP OF ALZHATV STUDY 2015: ALZHATV - A SMART PHONE APP FOR MANAGING DEPRESSION, ANXIETY, AND AGITATION IN DEMENTIA PATIENTS IN NURSING HOMES

Mavis Afriyie-Boateng, Sinai Health System, Toronto, ON, Canada

BEHAVIORAL OPTIMIZATION AND OUTCOME SUPPORT TEAM: A NOVEL INTERDISCIPLINARY MODEL TO IMPROVE THE CARE OF HOSPITALIZED PSYCHOGERIATRIC PATIENTS WITH BEHAVIORAL DISTURBANCES

Kimberly A. Van Orden, University of Rochester School of Medicine, Rochester, NY
“BEING AROUND PEOPLE DOES LIFT YOU UP”: ENGAGE PSYCHOTHERAPY FOR LONELY OLDER ADULTS

Peter Maeck, The Authors Guild, New York, NY; The Dramatists Guild, New York, NY

REMEMBRANCE OF THINGS PRESENT: MAKING PEACE WITH DEMENTIA

Hadia Shafi, Emory, Atlanta, GA

ECT BEYOND DEPRESSION

Faculty Disclosures:
Smita Varshney
Nothing to disclose

Juhi U. Varshney
Nothing to disclose

Rajesh Tampi
Nothing to disclose

William V. McCall
Nothing to disclose

Upkar Varshney
Nothing to disclose

Mavis Afriyie-Boateng
Nothing to disclose

Kimberly A. Van Orden
Nothing to disclose

Yeates Conwell
Nothing to disclose

Patricia Arean
Nothing to disclose

Peter Maeck
Nothing to disclose

Hadia Shafi
Nothing to disclose

Adriana P. Hermida
Nothing to disclose

POSITIVE PSYCHIATRY IN GEROPSYCHIATRIC CLINICAL PRACTICE: IN SCHIZOPHRENIA, COGNITIVE DISORDERS, AND AFFECTIVE DISORDERS
Session 308
Ellen E. Lee¹; Helen Lavretsky¹; Brenna N. Renn¹; Patricia Arean¹
2018 AAGP Annual Meeting

Abstract: With the growing aging population, neurocognitive and psychiatric disorders are affecting an increasing number of older adults, with significant impact on the health and well-being of patients. Annual mental healthcare costs for the population aged 65 years and older were over $17 billion in the US alone. Traditional psychopharmacological and psychosocial interventions focus on correcting deficits while the growing positive psychiatry movement shows promise in improving the quality of life and functioning in persons with serious mental illnesses. Ellen Lee, M.D. will describe the role of resilience in adults aged 26–65 years with schizophrenia and a history of childhood adversity and describe resilience-enhancing interventions that may be used in persons with psychotic disorders. Helen Lavretsky, M.D. will review the use of mind-body interventions in the treatment and prevention of cognitive and mood disorders as well as for caregiver stress, outlining the uses of mindfulness meditation, yoga, Tai Chi/Qi-Gong. She will also present the research literature that outlines the mechanisms and efficacy of these interventions. Brenna Renn, Ph.D. will present an overview of Problem-Solving Therapy (PST) for late-life affective disorders, outlining how this psychosocial treatment maximizes quality of life by engaging older adults in effective problem solving and coping. She will also summarize recent research on PST, with special attention to emerging mobile health applications to increase access to care. Dilip Jeste, M.D. will moderate and lead a discussion of the use of positive psychiatry interventions in clinical practice for the aging population.

Faculty Disclosures:
Ellen E. Lee
Nothing to disclose

Helen Lavretsky
Research Support: Forest Research Institute—Research grant

Brenna N. Renn
Nothing to disclose

Patricia Arean
Nothing to disclose

UPDATE ON GERIATRIC PSYCHIATRY MAINTENANCE OF CERTIFICATION PROGRAM
Session 309
Josepha A. Cheong1,2; Lisa L. Boyle3,4

1University of Florida, Gainesville, FL
2Tennessee Valley Healthcare System—Nashville VA Medical Center, Nashville, TN
3University of Wisconsin School of Medicine and Public Health, Madison, WI
4William S. Middleton Memorial VA Hospital, Madison, WI

Abstract: Maintenance of Certification is a program required for continued board certification in geriatric psychiatry by the American Board of Psychiatry and Neurology. This symposium will provide AAGP meeting attendees with an update from a Psychiatry Director of the ABPN about its Maintenance of Certification (MOC) program (including any recent changes in response to revised requirements issued by the American Board of Medical Specialties), information about how the AAGP can help support its members to maintain subspecialty certification, and an opportunity for participants to discuss issues related to maintaining ABPN subspecialty certification.

Faculty Disclosures:
Josepha A. Cheong
Nothing to disclose

Lisa L. Boyle
Nothing to disclose
UPDATE ON RECENT CLINICAL RESEARCH IN THE ADMINISTRATION OF ECT IN THE ELDERLY
Session 310
Adriana P. Hermida1; Robert Greenberg2; Charles Kellner3

1Emory University, Atlanta, GA
2NYU, New York, NY
3Mount Sanai, New York, NY

Abstract: The session will summarize the recent literature on the clinical administration of electroconvulsive therapy in the elderly with a focus on research that is relevant to the practicing clinician. Topics covered include Dr. Kellner’s summary of the findings from a decade of research from the multicenter Consortium of Research in ECT which will include data on RUL vs bilateral ECT, ultrabrief ECT and maintenance treatment in geriatric psychiatry. Dr. Hermida will provide an update on the cognitive changes that can occur with ECT as well as the tools used to assess these changes and potential measures that can be taken to minimize the cognitive side effects. Finally Dr. Greenberg will update the advances in anesthetic care during ECT with a focus on the particular risks and modifications to the anesthesia used in elderly patients.

Faculty Disclosures:
Adriana P. Hermida
Nothing to disclose

Robert Greenberg
Nothing to disclose

Charles Kellner
Research Support: NIMH—past research support
Other: Northwell Health—honorarium for teaching ECT course
Other: Psychiatric Times—fees for ECT articles
Other: Cambridge University Press—book royalties
Other: UpToDate—fees for writing ECT sections

DEVELOPING YOUR RESEARCH CAREER
Session 311

2017 HIGHLIGHTED PAPERS FOR THE GERIATRIC MENTAL HEALTH CLINICAL PROVIDER
Session 312
Laurel J. Bessey1; Juan J. Young3; Silpa Balachandran3; Lisa L. Boyle3

1University of Wisconsin Hospitals and Clinics, Madison, WI
2Case Western Reserve University (MetroHealth System), Cleveland, OH
3University of Wisconsin School of Medicine and Public Health, Madison, WI

Abstract: In this session, Drs. Bessey, Young, and Balachandran will present an overview of ten highlighted studies from the year 2017 relevant to geriatric psychiatry clinical practice. Studies for consideration will include recent advances in assessment or treatment of mental health within or applicable to the geriatric population, as well as recent advances published from other geriatric disciplines that it would be helpful for a practicing geriatric psychiatric or other mental health provider to be alerted. This symposium intends to feature highlights covering a broad range of recent topics in the clinical practice of geriatric psychiatry to promote efficient learning, critical thinking, and discussion among clinicians, researchers, and trainees present. Dr. Boyle will serve as faculty discussant.
2018 HONORS SCHOLARS ALUMNI SESSION
Session 313

AGING AND POST-INTENSIVE CARE SYNDROME: THE BURDEN ON OLDER ICU SURVIVORS AND THEIR FAMILIES
Session 314
You Na P. Kheir, Babar Khan, Noll Campbell
1Indiana University, Indianapolis, IN
2Indiana University Center of Aging Research, Indianapolis, IN
3Purdue University, West Lafayette, IN

Abstract: Due to the aging of the intensive care unit (ICU) population and an improvement in survival rates after ICU hospitalization, an increasing number of older adults are suffering from long-term cognitive, psychological, and physical impairments due to critical illness. These long-term impairments, known as post-intensive care syndrome (PICS), involve long-term cognitive, psychological, and physical domains. PICS is more likely to affect older adult and has become an increasingly important phenomenon in older adults for several reasons. First, the number of older adults with critical illness is rapidly increasing as the population ages. Patients 65 and over already account for 50% of ICU admissions, and patients 85 and over make up the fastest growing age group for ICU admissions. Second, over 70% of older adults hospitalized in the ICU develop delirium, which is a major risk factor for developing ICU acquired cognitive impairment. Third, cognitive and functional impairment before an ICU hospitalization increases the likelihood of cognitive and functional decline afterwards. Family members and caregivers can also be affected by patients’ critical illness. The post-intensive care syndrome-family (PICS-F) refers to the psychological impact of ICU hospitalization and post-ICU recovery of caregivers of the critically ill. Depressive symptoms are the most common among caregivers during critical care with a prevalence of 75.5% and PTSD-related symptoms are seen in 15–21% of the caregivers. Although there are only a clinics in the US dedicated to treating ICU survivors, this number is growing through the THRIVE collaboration sponsored by Society of Critical Care Medicine. A quality improvement collaborative study about ICU survivors supported the need for practice innovations and additional research to better address post-ICU survivorship concerns, such as the transitions of care to the primary care providers. In this symposium, we will review PICS, with a particular focus on neuropsychiatric sequelae in older ICU survivors, and psychological consequences of caregiving burden and PICS in family (PICS-F). We will then present information and data about the Critical Care Recovery Center, one of the first two ICU survivor clinics in the US based at Indiana University that delivers services for ICU survivors using an innovative collaborative care model. Finally, we will discuss psychotropic use in ICU survivors and the need to identify potentially inappropriate medications that are frequently continued in the post-ICU setting and put ICU-survivors at further risk of PICS complications.

Faculty Disclosures:
You Na P. Kheir
Nothing to disclose
BEST OF ALL WORLDS: GERIATRICS, GERIATRIC PSYCHIATRY, PALLIATIVE CARE: A COLLABORATIVE CONTINUUM OF CARE FOR PATIENTS WITH COGNITIVE IMPAIRMENT IN A LONG TERM CARE SETTING

Session 315
Maritza Buenaver; Courtney A. Huhn; Sheni Meghani

VA Eastern Kansas Healthcare System, Topeka, KS

Abstract: Essential to improving quality of care for persons with dementia is the integration of specialty care to address medical, psychiatric and palliative care needs within the same setting of care. We propose a session of three presentations: 1. A geriatric psychiatrist will review the barriers and benefits of incorporating hospice care in dementia care. With a focus on severe dementia as a terminal illness, this presentation will describe the role of a geriatric psychiatrist in managing the symptoms of terminal delirium, resistiveness to care, anorexia, cachexia and bereavement. 2. A geriatrician will introduce the integrated care model that has been implemented at the Topeka VA Medical Center, exemplified by a case presentation. The case will illustrate the continuum of care implemented within a long-term care setting. 3. The palliative care physician will illustrate the important role of engaging palliative care early in the diagnosis, and give a synopsis of a QI initiative implemented at community living centers that provide long-term care in the VA system. Based on the observations of the QI initiative, we will propose clinical guidelines for incremental integrated palliative care in dementia care in nursing home setting, including future steps to validate the proposed guidelines.

Faculty Disclosures:
Maritza Buenaver
Nothing to disclose

Courtney A. Huhn
Nothing to disclose

Sheni Meghani
Nothing to disclose

CASE PRESENTATION 2
Session 316

Kasia G. Rothenberg, The Cleveland Clinic, Cleveland, OH

COGNITIVE IMPAIRMENT AND CHOREA

Kim G. Johnson, Duke University, Durham, NC

DISCHARGE PLANS FOR GERIATRIC INPATIENTS WITH DELIRIUM: A PLAN TO STOP ANTIPSYCHOTICS?

Nidhi Goel, Manhattan Psychiatric Center, New York, NY; Manhattan Wellness Psychiatry, PLLC, New York, NY
A CASE OF PROGRESSIVE SUPRA NUCLEAR PALSY MISDIAGNOSED AS LATE ONSET SCHIZOPHRENIA

Faculty Disclosures:
Kasia G. Rothenberg
Nothing to disclose

Kim G. Johnson
Nothing to disclose

Nidhi Goel
Nothing to disclose

HIV—AIDS IN OLDER ADULTS
Session 317
Paroma Mitra1; Meera Balasubramaniam1,2; Romika Dhar3; Beverly Chang4

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2Bellevue Hospital, New York, NY
3West Virginia University, Morgantown, WV
4UC San Diego, San Diego, CA

Abstract: The proportion of older adults with HIV is increasing and is expected to continually increase. The HAART therapy has led to HIV being a chronic manageable disease with longer survival of HIV patients. The number of newly acquired infections in older adults is also increasing. The relationship between mental illnesses, HIV, and aging is complex. Firstly, psychiatric illnesses influence behaviors that increase the risk of new infections. Secondly, being old and mentally ill impacts the diagnosis and treatment of HIV. Finally, the combination of HIV and mental illnesses influences the process of aging at large. The above factors have necessitated that geriatric psychiatrists become familiar with management of older adults who are grappling with HIV, mental illnesses, issues of aging and their intersection with each other. This session will open with the case of an older adult with HIV-AIDS, which will be used as a focal point throughout the presentation. We will first review the epidemiology of HIV—AIDS among older adults, with respect to the transmission, incidence and prevalence of neuropsychiatric disorders. We will then discuss the steps involved in the clinical diagnosis of psychiatric disorders related to HIV—AIDS, including mood disorders, psychosis, substance use, and neurocognitive disorders. This will be followed by a discussion about the management of psychiatric disorders in an older adult with HIV. We will highlight the challenges of getting a mentally ill individual to comply with HAART, the management of psychiatric manifestations directly resulting from HIV—AIDS and the drug-drug interactions that a practitioner should be aware of. The last section will delve into the psychosocial considerations among long-term survivors of HIV-AIDS, such as survival guilt and the relative lack of social supports.

Faculty Disclosures:
Paroma Mitra
Nothing to disclose

Meera Balasubramaniam
Nothing to disclose

Romika Dhar
Nothing to disclose

Beverly Chang
Nothing to disclose
HOW TO MAKE IT WORK? DIFFERENT MODELS OF GERIATRIC MENTAL HEALTH PRACTICE IN LONG TERM CARE
Session 318
Brett Y. Lu¹; Maureen Nash²; Larry Tune³

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²Providence Elder Place, Portland, OR
³Emory University School of Medicine, Atlanta, GA

Abstract: The practice of geriatric psychiatrists during this period of rapid changes in requirement, regulation and reimbursement in our United States health care system have become more challenging. With the low reimbursement from Medicare and Medicaid systems make it difficult for geriatric psychiatrist to have financially viable practice in this setting. During this session, we will review the different models of geriatric psychiatry practice in Long-term care setting including traditional consultation by geriatric psychiatrist with and without the collaboration of the nurse practitioners with the focus on the logistic and reimbursement to maintain a thriving practice. We will discuss the current trend in moving toward the integration of population health practice in Long-Term Care setting including discussion of programs such as All Inclusive Care for the Elderly (PACE) program and Project ECHO, which is a model of consultation to a collective of organizations caring for similar populations. We will explore the use of Collaborative Care model in this setting. We will also discuss the use of Telemedicine in providing the care to this population.

Faculty Disclosures:
Brett Y. Lu
Nothing to disclose

Maureen Nash
Nothing to disclose

Larry Tune
Nothing to disclose

INCORPORATING MOBILE AND WIRELESS TECHNOLOGY INTO CLINICAL CARE: THE STATE OF THE SCIENCE
Session 319
Andrea Iaboni¹;²; Karen L. Whiteman³; Ipsit V. Vahia⁴

¹Toronto Rehab, University Health Network, Toronto, ON, Canada
²University of Toronto, Toronto, ON, Canada
³Dartmouth University, Lebanon, NH
⁴McLean Hospital, Belmont, MA

Abstract: Both mobile and wireless technologies are starting to demonstrate defined roles in the assessment and general folder adults with mental illnesses. As the broader field of technology use in geriatric mental health continues to mature, we are gaining a clear sense of the various levels at which geriatric psychiatrists can engage with technology. This session will include four talks (all of which will include new original data) that will collectively outline the various stages at which engagement between clinicians and technology has the potential to revolutionize the way in which care is delivered. Two of the presentations will focus on the process of app development. Dr. Andrea Iaboni will present on an app based Dementia Observation System that can digitally operationalize the process of monitoring for behavior symptoms and dementia. Dr. Olusola Ajilore will discuss the process of using the Apple ResearchKit to develop an app for tracking symptoms of bipolar disorder. The presentation by Dr. Karen Fortuna will present to work on translating an established intervention for patient engagement and schizophrenia into a mobile platform. She will discussed the principles of user–centered design and patient engagement with digital tools, both of which are key elements in the success of tech-based interventions. Dr. Ipsit Vahia will present new data on a non-mobile, non-wearable wireless sensor system and how it may generate data to facilitate prediction and early intervention for behavior symptoms in dementia.
MANAGING SLEEP IN OLDER ADULTS WITH NEUROCOGNITIVE DISORDER: NON-PHARMACOLOGIC APPROACHES ACROSS THE CARE CONTINUUM

Session 320
Shilpa Srinivasan¹; Kimberly B. Rudd²; Rushiraj Laiwala¹; Juliet A. Glover¹

¹University of South Carolina School of Medicine, Columbia, SC
²South Carolina Department of Mental Health, Columbia, SC

Abstract: Up to 50% of individuals with Major Neurocognitive Disorder (MNCD)/dementia experience problems with sleep. Prevalence rates are similar across both community-dwelling and long-term care facility residents. Unfortunately, sleep disturbance is not only common, but the impact is far-reaching and potentially crippling, taking its toll on both individuals as well as their caregivers. Etiologic factors contributing to sleep disturbance in individuals with MNCD includes neurodegenerative changes due to neuronal loss in the suprachiasmatic nucleus (SCN). Electroencephalographic (EEG) findings demonstrate that sleep architecture changes including decreases in slow wave and rapid eye movement (REM) sleep correlate with the severity of MNCD. Clinically, daytime drowsiness, napping and potentiation of day-night reversal are challenging across residential settings. The impact of such disturbances in individuals with MNCD includes worsening of behavioral disturbance and falls. Furthermore, sleep difficulties take a toll on caregivers with increased caregiver distress and burden, as well as long-term care (LTC) placement. There are currently no standardized, universal screening tools to detect insomnia or sleep disturbance in individuals with MNCD. Therefore, a thorough clinical assessment is essential to identify and characterize the specific nature of the sleep disturbance. Although pharmacologic strategies to manage sleep in older adults are numerous, the balance between benefit to risk ratios are often unfavorably skewed. Iatrogenic consequences of sedative-hypnotic agents and other psychotropics often prescribed/used to manage sleep disturbance include increased confusion, falls, and potential worsening cognitive function in a population already at risk. Non-pharmacologic strategies are often under-utilized but may offer not only a safer but more sustainable approach particularly across transitions in care from community-dwelling to acute care to LTC placement. This session will use a clinically focused approach to provide an overview of sleep architecture changes associated with both with normal aging and contrast that with sleep changes in individuals with MNCD. A clinical case will highlight the challenges in managing this condition across transitions of care from outpatient to inpatient and nursing home placement. Nursing home guidelines that influence treatment interventions and its challenges will be discussed. Lastly, an evidence-based review of non-pharmacologic interventions for the management of sleep disturbance in MNCD, including light therapy and sleep hygiene will be presented.
UNDERSTANDING THE LINK BETWEEN NEUROPSYCHIATRIC SYMPTOMS AND COGNITIVE DECLINE: INSIGHTS FROM NEUROIMAGING

Session 321
Ariel Graff-Guerrero1,2; Corinne Fischer3,4; Krista L. Lanctôt4,5; Linda Mah1,6

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2Department of Psychiatry, University of Toronto, Toronto, ON, Canada
3St. Michael’s Hospital, Toronto, ON, Canada
4University of Toronto, Toronto, ON, Canada
5Psychiatry, Sunnybrook Health Sciences Centre, Toronto, ON, Canada
6Rotman Research Institute, Toronto, ON, Canada

Abstract: Interventions for Alzheimer’s disease (AD) may have a greater impact on the course of AD if they are introduced in the preclinical stage, before memory symptoms develop and before extensive neuropathological changes have occurred in the brain. Neuropsychiatric symptoms (NPS) such as depression and apathy in cognitively normal older adults and in Mild Cognitive Impairment (MCI) increase the risk of developing future AD and thus, may represent prodromal features of AD. Although these epidemiological associations are well-established, the neural underpinnings of NPS associated with AD are less evident. For example, do anxiety symptoms in MCI share similar neural correlates as generalized anxiety disorder? Do NPS result from, or do they accelerate, AD-related neuropathological changes in the brain? Using the example of apathy, Geda and colleagues (American Journal of Geriatric Psychiatry, March 2017) proposed a hypothetical model on the pathways linking NPS and neuroimaging biomarkers of AD. Their model suggests that NPS symptoms result from cognitive impairment and AD-related neuropathology, and that NPS indirectly lead to neurocognitive disorders by moderating the pathway between cognitive impairment and incipient MCI or dementia. In this symposium, we will use the proposed model as a context for reviewing neuroimaging findings from various modalities (MRI, FDG-PET, PET amyloid) that are reported to be associated with specific NPS: depression, delusions, and apathy. We will then discuss the applicability of the proposed model in accounting for the associations between these specific NPS and neurocognitive disorders, and propose alternative mechanisms that may link NPS and cognitive decline.

Faculty Disclosures:
Ariel Graff-Guerrero
Nothing to disclose

Corinne Fischer
Nothing to disclose

Krista L. Lanctôt
Nothing to disclose

Linda Mah
Nothing to disclose

WILL YOU LIVE PAST 100? WHAT CENTENARIANS CAN TEACH US

Session 322
Maria Llorente1,2; Raya E. Kheirbek3,4; Nery A. Diaz5

1Department of Veterans Affairs, VISN 5, Linthicum, MD
2Georgetown University School of Medicine, Washington, DC
3Washington DC VA Medical Center, Washington, DC
4George Washington University School of Medicine, Washington, DC
5Columbia University, New York, NY

Abstract: The United States currently has the largest number of known centenarians of any country. In fact, 1 in 26 Baby Boomers is now expected to live to 100. Centenarians can be grouped into one of three categories: survivors (those who...
develop illness earlier in life but manage to survive past 100); delayers (those who develop illnesses at a later age in life); and escapers (those who manage to escape disease). There are multiple contributors to longevity and this presentation will review those factors. The presentation will additionally provide recent research data from the Department of Veterans Affairs centenarian study, which is the single largest sample of male centenarians. Thirdly, the presentation will provide a review of what is known about the incidence and prevalence of psychiatric disorders in this population. Lastly, members of the audience will be given an opportunity to participate in an individual assessment of likelihood to live to 100.

Faculty Disclosures:
Maria Llorente
Nothing to disclose

Raya E. Kheirbek
Nothing to disclose

Nery A. Diaz
Nothing to disclose

ADVANCES IN UNDERSTANDING VULNERABILITY TO LATE-LIFE SUICIDE: CLINICAL IMPLICATIONS

Session 323
Gary Kennedy¹, Anna Szucs²,³, Katalin Szanto⁴,³, Margda Waern⁵,⁶

¹Montefiore Medical Center, Bronx, NY
²University of Pittsburgh, Pittsburg, PA
³University of Geneva, Geneva, Switzerland
⁴Western Psychiatric Institute and Clinic, Pittsburg, PA
⁵Gothenburg University, Gothenburg, Sweden
⁶Sahlgrenska University Hospital, Gothenburg, Sweden

Abstract: The symposium presentations will describe risk elements based on cognitive, decisional, and personality domains, the course of antidepressant therapy, and self-disclosed characteristics that distinguish persons with thoughts of death from those with suicidal ideation. The personality characteristics that predict suicidal behavior in young-adult and middle-age populations, such as impulsivity, better predict suicide contemplation than behavior in the elderly. Completed suicide in late-life was more strongly associated with decisional rigidity and overall obsessive-compulsive personality traits. In addition, our studies indicate that suicidal behavior in late-life is facilitated by deficits in cognitive performance and the ability to make optimal decisions. Based on a cluster analysis in a large sample of non-demented depressed older adults, we identified three high suicide risk profiles: one characterized by late-onset depression and cognitive deficits resembling a dementia prodrome, another characterized by early-onset depression and prominent personality pathology, and a third defined by short-sighted decision-making and moderate cognitive deficits. These findings indicate the importance of cognitive evaluation in suicidal older adults, especially in cases of late-onset depression. In a separate study among older persons 75 and older prescribed an antidepressant, the need to switch antidepressants as well as the need to add an antianxiety agent or sedative hypnotic was associated with suicide attempts and deaths. Finally, among older community residents with thoughts that they might be “better off dead” illness, pain, and economic stress, but not severity of depression distinguished those with, from those without suicidal ideation. These findings advance our understanding of vulnerability to late life suicide and suggest new avenues for risk reduction.

Faculty Disclosures:
Gary Kennedy
Nothing to disclose

Anna Szucs
Nothing to disclose
CULTURALLY COMPETENT MENTAL HEALTH CARE FOR KUPUNA: AN UPDATED DIVERSE AND INCLUSIVE CURRICULUM

Session 324
Elspeth Ritchie1; Pachida Lo2; Amy Gajaria3; Mira Zein4

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2UC Davis, Davis, CA
3University of Toronto, Toronto, ON, Canada
4NYU School of Medicine Department of Psychiatry, New York, NY

Abstract: In the US, the older adult population is not only expanding, it is also becoming increasingly diverse. This is due to trends in international migration, mortality and childbearing. By 2050, projections indicate that 35% of the population older than 65 will be from a racial or ethnic minority group—compared to 11% in 1970. The largest growth rates are predicted to be among Hispanics, African-Americans, Asian-Pacific Islanders and Indigenous Peoples. Racial and ethnic minorities disproportionately interact with the health care system because they are more likely to have higher prevalence of chronic diseases. Compared to non-Hispanic Caucasians, African Americans and Latinos are more likely to have at least one of the following illnesses: diabetes, cardiovascular disease, hypertension, obesity, asthma, cancer or anxiety/depression. Health care providers and organizations need to deliver services that meet the social, cultural and linguistic needs of the patients whom they serve. By delivering this culturally competent care, systems can improve health outcomes and quality of care, as well as reduce/eliminate health care disparities. To achieve these goals, health care professionals must receive training on cultural competence in order to develop and establish systems of care that reduce access barriers, deliver true patient-centered care, and enhance health care outcomes. A sample didactic will be provided to demonstrate the concepts of culturally competent instruction for Indigenous Peoples. This curriculum was developed to provide a vehicle to provide updated literature review and references that can be utilized by the individual clinician, as well as by training directors, geriatric psychiatry course instructors, and continuing education departments.

Faculty Disclosures:
Elspeth Ritchie
Nothing to disclose

Pachida Lo
Nothing to disclose

Amy Gajaria
Nothing to disclose

Mira Zein
Nothing to disclose

FIRST DO NO HARM: IMPROVING THE QUALITY AND SAFETY OF PSYCHOTROPIC PRESCRIBING AMONG THE ELDERLY

Session 325
Ilse Wiechers1; Donovan Maust2; Alexander W. Threlfall3; Malaz Boustani4

1Yale University, New Haven, CT
2University of Michigan, Ann Arbor, MI
Clinical and researchers in late life mental health have focused on under-detection and under-treatment of mental illness in older adults. However, inappropriate overuse of psychotropic medication can pose potential harms to this patient population. This session will discuss three different initiatives that are attempting to improve the quality of psychotropic use in older adults. First, we will discuss the Psychotropic Drug Safety Initiative (PDSI), a nation-wide quality improvement program launched by the U.S. Department of Veterans Affairs to improve the quality of evidence-based prescribing to our nation’s veterans. PDSI has focused on improving prescribing in older veterans, specifically reducing inappropriate use of benzodiazepines, anticholinergics, and antipsychotics. Results from this initiative will be discussed. Next, we will turn to the Centers for Medicare & Medicaid Services National Partnership to Improve Dementia Care, which was focus on improving the quality of dementia care, with an emphasis on reducing antipsychotic prescribing. We will present results from this initiative, including the potential shift to alternative psychotropic medications. Finally, we will discuss a California Health Improvement Project directed at understanding psychotropic polypharmacy among patients in community health centers and developing strategies to decrease this practice.

Faculty Disclosures:
Ilse Wiechers
Other: Oakstone Medical Publishing—board review course lecturer

Donovan Maust
Nothing to disclose

Alexander W. Threlfall
Nothing to disclose

Malaz Boustani
Nothing to disclose

This session will highlight several challenging and complicated cases of bipolar disorder treated in an interprofessional geriatric outpatient clinic. We will share our lessons learned from these clinical encounters with the assistance of a clinical psychiatric pharmacist. We will review management of traditional mood stabilizers and associated symptoms of subtle toxicity related in the context of medical co-morbidity and aging. Additionally, we will highlight the difficulties of managing a patient with newly diagnosed Parkinson’s disease. Lastly, we will review a case of neurocognitive decline concerning for a major neurocognitive disorder in a patient with longstanding bipolar disorder. Our clinical psychiatric pharmacist discussant will review clinical pearls related to each of the cases presented. Additionally, we will share knowledge regarding literature updates, as well as guidelines for treatment of the aging patient with bipolar disorder.

Faculty Disclosures:
Victor M. Gonzalez
Nothing to disclose

Erica C. Garcia-Pittman
Nothing to disclose

S40 Am J Geriatr Psychiatry 26:3, Supplement 1
IMPROVING MENTAL HEALTH CARE ACCESS, ENGAGEMENT, AND DELIVERY AMONG DIVERSE, UNDERSERVED POPULATIONS: COLLABORATIONS FROM THE GERIATRIC MENTAL HEALTH SERVICES RESEARCH T32 POSTDOCTORAL FELLOWSHIP

Session 327
Daniel Jimenez¹; Karen L. Whiteman²; Mijung Park¹; Matthew Lohman⁴

¹University of Miami Miller School of Medicine, Miami, FL
²Geisel School of Medicine at Dartmouth, Lebanon, NH
³University of Pittsburgh Medical Center, Pittsburgh, PA
⁴Geisel School of Medicine at Dartmouth, Geisel School of Medicine at Dartmouth, NH

Abstract: It is well-established that racial/ethnic minority older adults, and other underserved groups, including homebound older adults, have unmet need for mental health care. Mental health services researchers use a variety of methodologies, such as surveys, interventions, qualitative interviews, and large-scale data analytic techniques, to better assess this unmet need for care, as well as to identify and implement methods to improve access to, engagement in, and delivery of high quality care. Thanks to the Geriatric Mental Health Services Research Fellowship, a multi-site NIMH-funded T-32 program, the field of mental health services research has gained prominence within geriatric psychiatry. The fellowship provides rich opportunities for trainees, focusing on mental health research in geriatrics and aging in diverse community and health care settings. The goal of this training program is to grow the field of early-career research scientists focusing on geriatric mental health services through a proven, innovative, transdisciplinary, multi-site, training collaboratory. This multi-site program brings together the strengths of investigators and training opportunities in four leading centers of excellence in geriatric mental health services research, namely Dartmouth College, Cornell University, the University of Washington (UW), and the University of Michigan (UM). Based on collaborations formed in this program, these four current and former T-32 fellows have constructed a symposium centered on the theme of improving access, engagement, and delivery of mental health care for underserved groups. The presentations highlight just some of the truly exceptional and diverse work that has come out of the T-32. Using mental health services research methodology, speakers will present data on disparities in mental health care, prevention of mental illness, health promotion, technology, home health care, and chronic disease management. The discussant, a T-32 mentor, will integrate these findings to apply mental health services research methodology in order to improve the mental health care of underserved populations as well as to enhance future T-32 collaborations.

Faculty Disclosures:
Daniel Jimenez
Nothing to disclose
Karen L. Whiteman
Nothing to disclose
Mijung Park
Nothing to disclose
Matthew Lohman
Nothing to disclose
INFLUENCES OF BIOLOGICAL AGING ON THE PSYCHOPHARMACOLOGIC MANAGEMENT OF LATE-LIFE DEPRESSION
Session 328
Bret Rutherford1; Jordan Karp2; Warren D. Taylor3; Helen Lavretsky4

1Columbia University, New York, NY
2University of Pittsburgh Medical Center, Pittsburgh, PA
3Vanderbilt University Medical Center, Nashville, TN
4UCLA, Los Angeles, CA

Abstract: Late-Life Depression (LLD) remains a severe public health problem due to its prevalence, chronicity, and association with mortality. The pathophysiology of LLD is complex and heterogeneous, with distinct, age-related, etiologic pathways capable of producing symptoms. Most of the known pathophysiologic contributors to LLD increase with advancing age (e.g., vascular damage, inflammation, cellular senescence), suggesting that LLD might be considered an adverse outcome of unhealthy aging. Recently, methods of quantifying unhealthy aging (i.e., biological age; BA) have been developed by aggregating indicators of the integrity of important bodily systems (e.g., cardiovascular, immune). Using these new research developments to better understand the complex interplay between aging-related processes and the pathophysiology underlying psychiatric disorders holds the promise of developing rationally designed, targeted prevention and treatment strategies for older adults. In this symposium, Dr. Helen Lavretsky will review the concept of biological aging and present data from her own research as well as the larger literature that illustrate the emerging relationship between biological aging and depression. Dr. Bret Rutherford will discuss the implications of brain aging for response to currently available therapeutic agents such as antidepressant medication, which recent data suggest may take the form of diminished placebo components of medication response in older patients. Specifically, patients with executive dysfunction and/or white matter lesions may have difficulty forming appropriate treatment expectancies and have impaired top-down modulation of limbic and striatal structures important for change in depressive symptoms. Finally, Dr. Jordan Karp will provide an overview of new treatment approaches for LLD that target novel underlying brain mechanisms. These new approaches integrate an understand of biological aging to show particular promise in older adults with LLD.

Faculty Disclosures:
Bret Rutherford
Nothing to disclose

Jordan Karp
Research Support: Pfizer—receipt of medication supplies for investigator initiated trial
Research Support: Indivior—receipt of medication supplies for investigator initiated trial

Warren D. Taylor
Nothing to disclose

Helen Lavretsky
Research Support: Forest Research Inst/Actavis—research grant

MANAGING BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA IN THE ERA OF BLACK BOX WARNINGS
Session 329
Rajesh Tampi1; Shilpa Srinivasan2; Pallavi Joshi3

1MetroHealth, Cleveland, OH
2University of South Carolina School of Medicine, Columbia, SC
3Northwell Health at Staten Island University Hospital, New York City, NY

Abstract: Dementias are the most common neurodegenerative conditions in human beings. As we age, the incidence and prevalence of dementias increase. Currently in the United States, there are over 5 million individuals with dementias. This
number is projected to rise to over 11 million over the next thirty years. Despite emerging data on various important aspects of dementia, the diagnosis and management of these disorders is not standardized. The data on the management dementias is still limited with none of the pharmacotherapeutic agents available in the market showing any longer term benefits.

Behavioral and Psychological Symptoms of Dementia (BPSD) refers to a group of non-cognitive symptoms and behaviors that occur commonly in patients with dementia. They result from a complex interplay between various biological, psychological and social factors involved in the disease process. BPSD is associated with increased caregiver burden, institutionalization, a more rapid decline in cognition and function and overall poorer quality of life. It also adds to the direct and indirect costs of caring for patients with dementia. Available data indicate efficacy for some non-pharmacological and pharmacological treatment modalities for BPSD. However, recently the use of psychotropic medications for the treatment of BPSD has generated controversy due to increased recognition of their serious adverse effects. Inappropriate Sexual Behaviors in Dementias (ISBD) are a group of behavioral symptoms that are not uncommon in individuals with dementias and cause significant distress to everyone involved. There is emerging data on the epidemiology, neurobiology, assessments and treatments for ISBD. In this symposium, we will discuss the epidemiology, neurobiology, assessment and management of individuals with Dementias, BPSD and ISBD. We will also provide an evidence based guideline to assess and manage these individuals. Finally, we will elaborate on the recent controversies in the treatment of individuals with Dementias, BPSD and ISBD.

Faculty Disclosures:
Rajesh Tampi
Nothing to disclose

Shilpa Srinivasan
Nothing to disclose

Pallavi Joshi
Nothing to disclose

RETIREMENT AND MENTAL HEALTH: HOW TO HELP OUR PATIENTS RETIRE SUCCESSFULLY
Session 330
Nisha Mehta-Naik; Caitlin Snow; Robert Abrams

New York Presbyterian-Weill Cornell Medicine, New York, NY

TRANSFORMING THE GERIATRIC WORKFORCE: TODAY IS TOMORROW

Session 331
Sandra S. Swantek¹; Rebecca M. Radue²; Elizabeth J. Santos³; Joel E. Streim⁴,⁵

¹Rush University Medical Center, Chicago, IL
²University of Wisconsin, Madison, WI
³University of Rochester School of Medicine and Dentistry, Rochester, NY
⁴Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA
⁵Behavioral Health Service, Cpl Michael J Crescenz VA Medical Center, Philadelphia, PA

Abstract: In 2015, Health and Human Services announced over $35 million in awards to 44 organizations in 29 states to create the Geriatrics Workforce Enhancement Program (GWEP). The program sought to transform care for older adults by integrating geriatrics with primary care and by building educational and clinical infrastructure that responds to national, regional and local needs through change that would improve healthcare outcomes. The GWEP was intended to build the knowledge and skills of providers while enhancing collaboration across the continuum of care from the hospital, outpatient, community and, home settings in multiple settings; urban, suburban and rural. Three years later, GWEPs across the country are examining the accomplishments and unmet challenges while developing plans for program sustainability. This session introduces attendees to four of these programs, their accomplishments, successes, challenges and sustainability plans.

WHEN GERIATRIC PSYCHIATRISTS RETIRE: A CONVERSATION ABOUT CRITICAL TRANSITIONS IN A PROFESSIONAL CAREER

Session 332
Hugh Hendrie1; Dan G. Blazer2

1Indiana University School of Medicine, Indianapolis, IN
2Duke University School of Medicine, Durham, NC

Abstract: Geriatric psychiatrists daily encounter patients experiencing both the joy and difficulties of retirement. Yet they often do not consider their own “retirement.” How does a psychiatrist retire successfully? Though the trajectories and components of a successful retirement vary, we believe common themes do emerge. In this session two psychiatrists, past presidents of AAGP, who are “retired” on paper yet over a decade apart in age, enter a conversation regarding the transitions which they currently negotiate and lessons learned from these transitions. In our experience, retirement at best is a phased process from supervisor to mentor, from director to advisor, from tight schedules to more freedom to pursue new interests, from a packed agendas to time spent exploring new pursuits, from limited time for companionship to a greater engagement with family and friends. Yet we also have found that retirement brings challenges such as dealing with the vicissitudes of aging, declining physical abilities, cognitive aging and coping with anxiety and uncertainty. As psychiatrists age into the stage of life when retirement looks more attractive, appropriate and feasible, we encourage them to embrace the complete life cycle of the professional. Roles change. Some skills become outdated whereas others are of more value to society and the profession than ever. Most successful retirements, we believe, are not retirements which withdraw from the professional arena but rather engage in new ways with the profession, not to mention the psychiatric well-being of our society. This engagement, however, must not be in the service of the “good old days” but rather recognizes that a new generation of psychiatrists will live into a new world of health care. Successful retirement for us involves continued activity as long as health permits and an embrace of the professional life cycle, the integration of decades of work into an acceptance of one’s one and only professional life.

Faculty Disclosures:
Hugh Hendrie
Nothing to disclose

Dan G. Blazer
Nothing to disclose

AAGP ADVOCACY: STRENGTHENING OUR MISSION IN GERIATRIC MENTAL HEALTH

Session 400
Ilse Wiechers1,2; Alexander W. Threlfall3

1Yale School of Medicine, New Haven, CT
2Department of Veterans Affairs, West Haven, CT
3Santa Rosa Community Health Centers, Santa Rosa, CA

Abstract: This session, sponsored by the Public Policy Caucus, will provide updates on recent federal and state mental health legislation and policy issues and will help prepare participants to engage in effective advocacy for our patients and the field of geriatric psychiatry. Presenters will review the key current issues in aging and mental health policy, with specific focus on current federal and state health care legislation that may have impact on our patients and our practice. Presenters will also lead the participants through “Advocacy 101” training, reviewing effective strategies for engaging and communicating with policymakers and elected officials.

Faculty Disclosures:
Ilse Wiechers
Other: Oakstone Medical Publishing—board review course lecturer

Alexander W. Threlfall
Nothing to disclose
AGING CAN BE A LAUGHING MATTER—USE OF IMPROVISATIONAL THEATER IN OLDER ADULTS
Session 401
Anees Benferhat; Madeleine S. Abrams; Elaina DellaCava; Jonathan Zilberstein
Montefiore Medical Center, New York, NY

Abstract: Improvisational theater has been increasingly used in the field of psychiatry, both as a modality of group therapy, as well as in medical education to enhance the communication skills of trainees. In the older adult population, it has been shown as a complementary treatment to improve depressive symptoms, anxiety, and feelings of isolation. Exercises derived from improvisational theater are relatively simple to learn, enjoyable, and accessible even to older adults with memory impairment. Given the demonstrated benefits from the skills learned in improvisational therapy, it is beneficial for providers to be aware of this as a resource. This experiential workshop gives an opportunity to attendees to participate in exercises derived from improvisational theater. Participants will learn how the skills of mindfulness, active listening, and working with mistakes are introduced and reinforced using improvisational theater techniques. A review of the current literature on improvisational theater as a treatment modality in older adults as well as ongoing areas of work in medical education and in a population of older adults will also be provided.

Faculty Disclosures:
Anees Benferhat
Nothing to disclose

Madeleine S. Abrams
Nothing to disclose

Elaina DellaCava
Nothing to disclose

Jonathan Zilberstein
Nothing to disclose

CLINICAL APPLICATIONS AND RESEARCH UPDATES OF GENETICS IN GERIATRIC PSYCHIATRY
Session 402
Debby Tsuang1; Robert A. Sweet2,3; John McGeary4,5

1University of Washington, Seattle, WA
2University of Pittsburgh, Pittsburgh, PA
3Pittsburgh VA Medical Center, Pittsburgh, PA
4Warren Alpert School of Medicine Brown University, Providence, RI
5Providence VA Medical Center, Providence, RI

Abstract: The field of medical genetics has advanced exponentially since the mapping of the human genome. The development of next-generation sequencing DNA technologies has and will continue to revolutionize clinical care. This approach has changed the approach to the diagnosis and clinical management of numerous medical conditions, especially in the field of oncology. These advances have resulted in the National Institute of Health’s initiative on personalized and precision medicine. Genetics in general and geriatric psychiatry is still largely limited to rare single gene variants that are found in rare families with multi-generations of affected individuals with Alzheimer’s disease (AD), Parkinson’s disease (PD), and frontotemporal dementia (FTD). However, understanding genetic risk factors of different neurodegenerative illnesses and the aging process itself could be important in the diagnosis and determination of the comorbidities and prognosis associated with common neurodegenerative disorders. This symposium will present the work of three researchers who are involved in different areas of genetic research; Dr. Tsuang will discuss the genetics of AD and illustrate general genetic counseling principles and their
relevance to neurodegenerative disorders; Dr. Sweet will discuss genetic risk factors associated with psychosis in AD; Dr. McGeary will present his findings on the genetic underpinnings of premature aging in chronically homeless individuals.

Faculty Disclosures:
Debby Tsuang
Nothing to disclose

Robert A. Sweet
Nothing to disclose

John McGeary
Nothing to disclose

DEPRESSION IN DEMENTIA: EPIDEMIOLOGY, SCREENING AND TREATMENT PATHWAYS
Session 403
M. Selim Asmer¹; Dallas Seitz²; Julia Kirkham³

¹University of Toronto, Toronto, ON, Canada
²Queen’s University, Kingston, ON, Canada

Abstract: Major depressive disorder and depressive symptoms are common among individuals with Alzheimer’s disease and other forms of dementia. These symptoms adversely affect quality of life and contribute to additional morbidity for people who are affected. Depression in dementia can also be challenging for clinicians to identify and distinguish from other neuropsychiatric symptoms in dementia and treatment of depression in dementia must take into account some of the unique challenges with implementing both pharmacological and psychosocial treatments. In this symposium presenters will review the epidemiology of depression in dementia including information about the prevalence of depression in dementia and factors associated with depression in dementia. We will then review evidence-based screening tools for case finding individuals with depression in dementia and discuss practical strategies for using screening tools to identify depression. Pathways for treatment of depression in long-term care residents with dementia and depression will then be reviewed. Overall, attendees at this presentation will learn new information about depression in dementia and develop skills to identify and manage this common condition.

Faculty Disclosures:
M. Selim Asmer
Nothing to disclose

Dallas Seitz
Research Support: Hoffman-La Roche—Participation in clinical trials.

Julia Kirkham
Nothing to disclose

MEASURING THE QUALITY OF DEMENTIA CARE: HOW IT’S DONE AND WHY IT’S GOOD
Session 404
Robert P. Roca¹; Laura Fochtmann²; Philip Wang³

¹Sheppard Pratt Health System, Towson, MD
²Stony Brook University, Stony Brook, NY
³American Psychiatric Association, Arlington, VA
Abstract: A work group chaired by representatives of the American Psychiatric Association (Robert Roca) and the American Academy of Neurology (Amy Sanders) recently published a revised set of quality measures for dementia care. These are “process” measures focus on how well clinicians follow guidelines and/or best practices with respect to such clinical activities as disclosing the diagnosis (of dementia), performing functional assessments, screening for psychological and behavioral problems, and providing support and education to caregivers. In the first presentation, the new dementia measure set will be reviewed in detail and the process by which the measures were selected will be described, emphasizing the impact of published practice guidelines on measure selection. The second presentation will describe the challenging and laborious process by which practice guidelines are produced, stressing recent work developing guidelines relevant to the treatment of dementia. The final presentation will review how performance on these quality measures may affect Medicare reimbursement and how the new APA Registry may help psychiatrists manage their quality data, succeed in the Merit-based Incentive Payment System (MIPS), and drive future measure development.

Faculty Disclosures:
Robert P. Roca
Nothing to disclose

Laura Fochtmann
Nothing to disclose

Philip Wang
Nothing to disclose

NEW RESEARCH ON SUBSTANCE MISUSE AND ABUSE AMONG AGING ADULTS
Session 405
Derek Satre1; Donovan Maust2; Rob Kok3; Frank T. Wolde3; Bouwe Pieterse3; Julia F. Van den Berg3,4; Frederic C. Blow5,6

1UCSF, San Francisco, CA
2University of Michigan, Ann Arbor, MI
3Parnassia Psychiatric Institute, The Hague, Netherlands
4Old Age Department, The Hague, Netherlands
5University of Michigan, Ann Arbor, MI
6Department of Veterans Affairs, Ann Arbor, MI

Abstract: In recent years, with the aging of the Baby Boomers, the use of alcohol, other psychoactive prescription medications and illicit drugs among older adults has been increasing, and therefore many are at increased risk for developing serious alcohol and drug problems. Because of the unique vulnerabilities common in later life, including chronic physical and mental disorders, multiple medications, and other age-related changes in alcohol and drug absorption and metabolism, many older adults are at increased risk for problems with these substances, even with low to moderate use. This session will focus on new research findings related to substance abuse in aging individuals with three presentations: Dr. Satre will report on findings focused on substance use and psychiatric comorbidity and among HIV primary care patients who report hazardous drinking. Dr. Maust will highlight new research on risk factors for benzodiazepine use, misuse and overdose. Dr. Kok will discuss results of a study of the age-related acute effects of alcohol withdrawal. Finally, the discussant, Dr. Blow, will discuss implications of these research findings and will provide an overview of key treatment recommendations from a new SAMHSA national expert consensus panel on substance abuse treatment.

Faculty Disclosures:
Derek Satre
Nothing to disclose

Donovan Maust
Nothing to disclose

Rob Kok
Nothing to disclose
WHAT A GERIATRIC PSYCHIATRIST NEEDS TO KNOW ABOUT MOVEMENT DISORDERS
Session 406
Patricio Riva Posse1; Laura Marsh1; William M. McDonald2

1Emory University, Atlanta, GA
2Baylor College of Medicine, Houston, TX

Abstract: Movement disorders can be caused by psychiatric medications, underlying neurological conditions or, in many cases, both. Movement disorders are an increasingly common neurological disorder in elderly patients with psychiatric. Dr. Riva Posse is Board Certified in Neurology and Psychiatry and he will use videos to demonstrate the most common movement disorders and outline a strategy for diagnosing them. Dr. Marsh will discuss Parkinson’s disease (PD), the quintessential movement disorder that encompasses many common geriatric psychiatry syndromes including psychosis, depression and cognitive disorders. She will also outline the PD medications which are associated with psychiatric syndromes such as psychosis and obsessive behaviors. Dr. McDonald will focus on tardive dyskinesia, a movement disorder that increases with age. He will describe case studies and show patient videos demonstrating TD as well as outline available treatments for TD.

Faculty Disclosures:
Patricio Riva Posse
Consultant: Johnson & Johnson—consulting fees

Laura Marsh
Other: MedEdicus/Acadia—Honorarium for AAGP2017 Symposium on PD Psychosis

William M. McDonald
Research Support: Neuronetics—TMS machine for research on loan
Other: Oxford Press—contract to co-edit book on TMS
Research Support: Stanley Foundation—research support
Research Support: PCORI—research support
Research Support: Cervel—research support
Research Support: Soterix—tDCS machine of loan for research

CULTIVATION OF WELL-BEING THROUGH MIND-BODY INTERVENTIONS
Session 407
Helen Lavretsky1; Julie Wetherell2; Moria J. Smoski3; Taya Varteresian4,5

1UCLA, Los Angeles, CA
2University of California San Diego, La Jolla, CA
3Duke University, Durham, NC
4LA County DMH, Los Angeles, CA
5University of California Irvine, Orange, CA
Abstract: There is a growing interest in the US regarding Complementary Alternative and Integrative Medicine (CAIM) for wellness as well as treating a variety of mental and physical disease states in the elderly population. Mind-body practices compose one category of CAIM that includes meditation, yoga and Tai Chi/Qi-Gong. The evidence of mind-body interventions on the mental and physical well-being of individuals including older adults and caregivers is growing. Mind-body interventions are taught by trained practitioners and can be used to complement traditional Western medical practices. The data show yoga and meditation improve the mental health of dementia caregivers, as well older adults with cognitive impairment. Additionally, Tai Chi improves depression for older adults. Mindfulness-based interventions are increasingly utilized for a variety of mental health conditions. One type of mindfulness practice called Loving-kindness meditation will be discussed and demonstrated so that participants will be able to benefit their patients and themselves. Burn out and compassion fatigue is a growing problem amongst health-care providers and the same mind-body interventions that can benefit patients can also be utilized to help providers. Another intervention called Mindfulness-Based Stress Reduction (MBSR) has been shown to improve memory in individuals with age-related cognitive changes. Breathing exercises for trauma and wellness will be explored and demonstrated. Because patients are requesting CAIM and traditional medical training programs do not provide sufficient training, it is essential that providers enhance their knowledge base in order to appropriately treat their patients needs.

Faculty Disclosures:
Helen Lavretsky
Research Support: Forest Research Inst/Actavis—research grant

Julie Wetherell
Nothing to disclose

Moria J. Smoski
Nothing to disclose

Taya Varteresian
Nothing to disclose

CULTURAL COMPETENCE IN PALLIATIVE AND END-OF-LIFE CARE: UNDERSTANDING YOUR PATIENT’S CONTEXT
Session 408
Greg Sullivan1,2; Patricia W. Nishimoto3; Matthew W. Warren1,2; Kenneth M. Sakauye4,5

1James A Haley Veterans Administration Medical Center, Tampa, FL
2University of South Florida, Tampa, FL
3Tripler Army Medical Center, Honolulu, HI
4Memphis VA Medical Center, Memphis, TN
5University of Tennessee Health Science Center, School of Medicine, Memphis, TN

Abstract: In clinical care, having a culturally-contextualized understanding encompasses awareness of an individual patient’s background, culture, language, ethics, and health-related beliefs. Nowhere is this a more important topic than the field of palliative medicine. This panel presentation is designed to address both cross-cultural similarities and inter-cultural variances at every stage of end-of-life care. Discussion will begin with the meaning and value of resuscitation procedures within various belief systems, with particular focus on advance planning and end-of-life discussions held within a culturally-sensitive context. Symptoms will subsequently be discussed, including the experience of pain, delirium, existential distress, and the meaning of such symptoms within an individual’s belief system. Finally, the process of dying will be reviewed, including cross-cultural uniformity in the dying process and beliefs regarding the soul. Importantly the session will also briefly address the growing need for incorporation of cultural competency within medical trainee education.

Faculty Disclosures:
Greg Sullivan
Nothing to disclose
FRONTOTEMPORAL DEMENTIA, ALZHEIMER’S DISEASE, AND PSYCHIATRIC ILLNESS: A ROADMAP FOR THE DEDICATED CLINICIAN
Session 409
Sophia Wang; Daniel R. Bateman; Liana G. Apostolova
Indiana University, Indianapolis, IN

Abstract: The importance of advanced diagnostic techniques and a systematic approach to making an accurate diagnosis of a neurodegenerative disorder cannot be underestimated. Amyloid imaging, cerebrospinal fluid findings, structural imaging, neuropsychological testing and clinical history all help clinicians diagnose, mild cognitive impairment, Alzheimer’s disease (AD), frontotemporal dementia (FTD) and other neurodegenerative disorders. This session seeks to educate geriatric psychiatrists and other clinicians in the most up to date imaging techniques, biomarkers, genetics and approaches to making a diagnosis of a neurodegenerative disorder. Beginning with an update on the value of amyloid imaging and the Centers for Medicare and Medicaid Services IDEAS study, clinicians will learn cutting edge approaches to diagnosing neurodegenerative disorders. Appropriate indications for the use of amyloid imaging will be reviewed during this session. Behavioral variant frontotemporal dementia and atypical Alzheimer’s disease type dementias are often misdiagnosed as psychiatric disorders. This session provides clinicians with a systematic approach to differentiating FTD and atypical AD from primary psychiatric disorders. By the end of this session, clinicians will appreciate the potential pitfalls, clinical pearls, imaging and other biomarker differences that lead to an accurate neurodegenerative disorder diagnosis.

Faculty Disclosures:
Sophia Wang
Nothing to disclose

Daniel R. Bateman
Nothing to disclose

Liana G. Apostolova
Nothing to disclose

NEGOTIATING 101 FOR EARLY CAREER PSYCHIATRISTS
Session 410
Ellen E. Lee1; Karen Reimers2; Tatyana Shteinlukht3; Brandon Yarns4

1VA San Diego Healthcare System and University of California, San Diego, San Diego, CA
2University of Minnesota, Minneapolis, MN
3University of Massachusetts Medical School, Worcester, MA
4UCLA, Los Angeles, CA

Abstract: Co-sponsored by the AAGP Early Career Psychiatrists Caucus and the AAGP Women’s Interest Group, this session continues the tradition of the previous AAGP “Job Search 101” series, supporting career development in Geriatric Psychiatry. Negotiation plays a central role in the workplace, affecting salaries, benefits and responsibilities. Negotiation skills are neglected in medical and academic training. Early career psychiatrists can benefit from acquiring basic negotiation skills as they begin
negotiating job contracts in the workplace. Women face multiple challenges in the negotiation process that result in a gender pay disparity, lack of female representation in leadership and hiring roles and disadvantaged working conditions. Throughout academic medicine, women are significantly underrepresented in full professor and chair positions, despite an adequate pipeline of female trainees. In this session, we focus on negotiation, especially of employment contracts. We highlight challenges that face women during the negotiation process, as well as outline strategies, opportunities and resources to help geriatric psychiatrists and other mental health professionals best advocate for their needs and career goals. At the end of this session, participants will be familiar with several strategies to successfully negotiate in the workplace, as well as with the literature on gender disparities in pay and achievement.

Faculty Disclosures:
Ellen E. Lee
Nothing to disclose

Karen Reimers
Nothing to disclose

Tatyana Shteinlukht
Nothing to disclose

Brandon Yarns
Nothing to disclose

RESEARCH IN DEMENTIA AND DEPRESSION IN ELDERLY JAPANESE-AMERICAN MEN: THE KUAKINI HONOLULU-ASIA AGING STUDY
Session 411
Kamal Masaki1; Junji Takeshita1

1University of Hawai‘i, Honolulu, HI
2Kuakini Medical Center, Honolulu, HI

Abstract: The Kuakini Honolulu Heart Program (HHP) is a longitudinal cohort study of Japanese-American men that began in 1965 in 8,006 Japanese-American men on Oahu born between 1900 and 1919. The Kuakini HAAS is an extension of the HHP that started with the fourth HHP exam in 1991-93, when the men were 71–93 years of age. Participants have been followed with serial examinations, and surveillance for morbidity and mortality. The Kuakini HHP-HAAS provides a rich database over 52 years in a unique population of elderly Japanese-American males into extreme old age. It also allows the rare opportunity to study associations between mid-life risk factors and conditions in late-life. This session will focus on an overview of results on dementia and depressive symptoms in elderly Japanese-American men from the Kuakini HHP-HAAS.

Faculty Disclosures:
Kamal Masaki
Nothing to disclose

Junji Takeshita
Nothing to disclose

THE ASSESSMENT AND MANAGEMENT OF TREATMENT RESISTANT DEPRESSION IN THE ELDERLY
Session 412
William M. McDonald1; Georgios Petrides2; Scott T. Aaronson3; Patricio Riva Posse1

1Emory University, Atlanta, GA
2Hofstra Northwell School of Medicine, Glen Oaks, NJ

2018 AAGP Annual Meeting
Abstract: Treatment resistant depression (TRD), or major depression which does not respond to two adequate antidepressant trials, is a significant problem in older adults and occurs in up to 30% of depressed seniors. The management of TRD often involves the use of neuromodulation treatments including electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), vagal nerve stimulation (VNS) and investigational treatments such as ketamine infusion therapy. This symposium will outline the definition of TRD as well as the data on what to do next- another medication trial or neuromodulation treatments or off label treatments such as ketamine.

Faculty Disclosures:
William M. McDonald
Research Support: Neuronetics—TMS machine for research on loan
Other: Oxford Press—contract to co-edit book on TMS
Research Support: Stanley Foundation—research support
Research Support: PCORI—research support
Research Support: Cervel—research support
Research Support: Soterix—tDCS machine of loan for research

Georgios Petrides
Nothing to disclose

Scott T. Aaronson
Research Support: Neuronetics—Equipment support for study
Speakers Bureau: Sunovion—speak on use of meds for bipolar depression
Consultant: Genomind—serve on scientific advisory board
Consultant: LivaNova—advisor for future research on VNS

THE MARRIAGE BETWEEN CLINICAL PHARMACY & PSYCHIATRY: A NOVEL GERIATRIC TRAINING EXPERIENCE

Session 413
Erica C. Garcia-Pittman1; Tawny Smith1,2; Victor M. Gonzalez1; Nina Vadiei3

1UT Dell Medical School, Austin, TX
2University of Texas at Austin, College of Pharmacy, Austin, TX
3University of Arizona College of Pharmacy, Tucson, AZ

Abstract: Interprofessional collaboration in healthcare creates the opportunity to improve how we deliver patient care by combining different perspectives on how to approach patient care issues with the common goal of providing the best care possible. This session will highlight the implementation of a novel interprofessional geriatric psychiatry outpatient training experience at UT Dell Medical School at Seton Healthcare Family involving clinical pharmacy and geriatric psychiatry. We will review our current training experience with a focus on novel aspects of curriculum highlighting differences between classic ACGME requirements. We will share success since the creation of this rotation including increased access to care, increased interest in geriatric psychiatry as well as scholarship opportunities. And we will share potential future directions and goals for geriatric education. Trainees in clinical pharmacy and psychiatry will share their perspectives and insights regarding this unique collaborative training experience.

Faculty Disclosures:
Erica C. Garcia-Pittman
Nothing to disclose
**CASE PRESENTATION 3**

**Session 414**

Andrea Iaboni, Toronto Rehab, University Health Network, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada

**A PALLIATIVE APPROACH TO RESTLESSNESS AND FALLS IN ADVANCED DEMENTIA**

Alberto M. Goldwaser, NYU Langone Medical Center, Jersey City, NJ

FROM THE GERIATRIC HOSPITAL BED TO THE WITNESS STAND—DELIRIUM IN THE COURTROOM: CIVIL (MEDICAL MALPRACTICE)—CRIMINAL (ELDER ABUSE)—ETHICAL (AUTONOMY) CONSIDERATIONS

Victoria Liou-Johnson, University of Colorado Hospital, Aurora, CO; University of Colorado, Aurora, CO

**A TALE OF TWO OUTCOMES IN OLDER ADULT ALCOHOL AND SUBSTANCE USE TREATMENT**

Faculty Disclosures:
Andrea Iaboni
Nothing to disclose

Alberto M. Goldwaser
Nothing to disclose

Victoria Liou-Johnson
Nothing to disclose

**DIVERSITY AND INCLUSIVITY—PRINCIPLES OF AAGP CULTURE?**

**Session 415**

Carolina Jimenez-Madiedo1; Tatyana Shteinlukht2; Melinda S. Lantz2; Daniel D. Sewell3

1Brown University, Providence, RI
2University of Massachusetts Medical School, Worcester, MA
3Mount Sinai Beth Israel, New York, NY
4UC San Diego School of Medicine, San Diego, CA

**Abstract:** Paraphrasing Schein, AAGP has gathered a group of people with enough stability and common history to allow a culture to be born. In this symposium, we want to explore the shared norms, values, and assumptions that guide the AAGP function within itself and the society at large. Culture is a vast concept, so we will provide an overview of models and elements of organizational culture. We will share a diverse and inclusive perspective of AAGP culture and invite the attendees to reflect
on our own organization’s culture. In this way, we will build a comprehensive understanding of the AAGP organizational culture and how it influences its function and direction.

Faculty Disclosures:
Carolina Jimenez-Madiedo
Nothing to disclose

Tatyana Shteinlukht
Nothing to disclose

Melinda S. Lantz
Nothing to disclose

Daniel D. Sewell
Other: ActivCare, Inc. - Medical Advisory Board Member
Research Support: DHHS/HRSA Geriatric Workforce Enhancement Program Grant—Co-PI
Research Support: NIH-Alzheimer’s Association-Lilly—IDEAS Study Clinician Participant

MANAGING BEHAVIORAL HEALTH NEEDS OF OLDER ADULTS IN THE EMERGENCY DEPARTMENT
Session 416
Rebecca M. Radue; Laurel J. Bessey; Manish N. Shah; Lisa L. Boyle

University of Wisconsin, Madison, WI

Abstract: As the “Silver Tsunami” of aging Baby Boomers washes over the United States, the population of older adults living with mental illness increases, leading to challenges in the delivery of mental health care. Recent estimates from the WHO in 2016 suggest that 15% of adults over age 60 are living with a mental health disorder. Emergency departments across the country are often on the front lines of mental health crises for our older patients, especially in rural areas where specialty mental health care is scarce. Older adults are presenting to EDs for psychiatric concerns at increasing rates, and the proportion of total older adult ED visits for psychiatric reasons is also growing. Depression and suicidality, anxiety and panic, agitation and psychosis, and substance abuse and withdrawal are the most common mental health presenting problems for older adults in the emergency department. Neurocognitive disorders and medical comorbidities presenting with behavioral disturbance complicate the picture for many older adults. In this session, we will cover the oft neglected topic of management of behavioral health needs of older adults in the emergency department. We will provide a thorough literature review detailing epidemiology, approaches to evaluation and management of for older adult patients with considerations for differences from younger populations, taking into consideration the diversity of supporting services and community needs. We will focus this review of the literature specifically on evaluation and management of agitation due to delirium, dementia, psychosis, and substance abuse and withdrawal, along with anxiety, depression and suicidal ideation. We will close with a discussion offering perspective from providers representing both emergency medicine (Dr. Shah) and geriatric psychiatry (Dr. Boyle) with ample time for active questions and engagement from the audience.

Faculty Disclosures:
Rebecca M. Radue
Nothing to disclose

Laurel J. Bessey
Nothing to disclose

Manish N. Shah
Nothing to disclose

Lisa L. Boyle
Nothing to disclose
NO LONGER INVISIBLE: THE ROLE OF INTERNATIONAL MEDICAL GRADUATES (IMGs) AND PHYSICIANS FROM UNDERREPRESENTED MINORITIES IN MEDICINE (URMS) IN GERIATRIC PSYCHIATRY

Session 417
Tammy Duong¹; Peter Ureste²; Andreea Seritan²

¹University of California San Francisco, San Francisco, CA
²UCSF, San Francisco, CA

Abstract: In recent years, IMGs filled approximately half of the geriatric psychiatry fellowship positions,¹ in contrast to the average IMG presence of about 32% among all psychiatric trainees.¹, ² As practicing psychiatrists, IMGs treat significantly more adults who are older than 65 years of age compared to US medical graduates, although this may be less due to preference and more a reflection of available positions.³ It is possible that IMGs gravitate towards geriatric psychiatry due to their cultural worldviews and family values that emphasize deep intergenerational bonds, as well as prior training in related medical specialties. Professional identity of each physician begins with “who they are” at the beginning and “who they wish to become”. This process will ultimately contribute to choices made related to professional practice. In addition, IMGs and minority physicians appear to experience unique challenges, including a sense of isolation and a feeling of invisibility. This may affect their ability to achieve success in academia, and in leadership positions in organized medicine. In this symposium, IMGs and members of minority groups will present their perspectives on this issue from their personal and professional experience and therefore will no longer be “invisible”. ¹. Brotherton SE, Etzel SI. Graduate medical education, 2013–2014. JAMA. 2016; 316:2291–2310. ². Boulet JR, Cassimatis EG, Opalek A. The role of international medical graduate psychiatrists in the United States healthcare system. Acad Psychiatry. 2012; 36:293-9. ³. Blanco C, Carvalho C, Olfson M, Finnerty M, Pincus HA. Practice patterns of international and US medical graduate psychiatrists. Am J Psychiatry. 1999; 156:445-50. 4. Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y. A schematic representation of the professional identity formation and socialization of medical students and residents: a guide for medical educators. Acad Med. 2015;90:718–725. 5. Chen PG-C, Curry LA, Bernheim SM, Berg D, Gozu A, Nunez-Smith M. Professional challenges of non-U.S.-born international medical graduates and recommendations for support during residency training. Acad Med. 2011;86(11):1383–1388 6. Pololi L, Cooper LA, Carr P. Race, disadvantage and faculty experiences in academic medicine. J Gen Intern Med. 2010;25(12):1363–9

Faculty Disclosures:
Tammy Duong
Nothing to disclose

Peter Ureste
Nothing to disclose

Andreea Seritan
Nothing to disclose

ORAL PRESENTATION 2: NEUROMODULATION
Session 418

Myuri Ruthirakuhan, Sunnybrook Research Institute, University of Toronto, Toronto, ON, Canada

INVESTIGATING BIOMARKERS OF AGITATION IN MODERATE-TO-SEVERE ALZHEIMER’S DISEASE PATIENTS ENROLLED IN AN RCT WITH NABILONE

Audun O. Vik-Mo, Centre for Age-Related Diseases (SESAM), Stavanger University Hospital, Stavanger, Norway; University of Bergen, Department of Clinical Science, Bergen, Norway

COURSE OF NEUROPSYCHIATRIC SYMPTOMS DURING 5 YEARS IN PEOPLE WITH MILD DEMENTIA: THE NORWEGIAN DEMVEST-STUDY
Prasad R. Padala, Central Arkansas Veterans Healthcare System, Little Rock, AR; University of Arkansas for Medical Sciences, Little Rock, AR

TRANSCRANIAL MAGNETIC STIMULATION FOR APATHY IN ALZHEIMER’S DISEASE: A DOUBLE BLIND SHAM CONTROLLED TRIAL

Leslie Citrome, New York Medical College, Suffern, NY

PIMAVANSERIN FOR THE TREATMENT OF PARKINSON’S DISEASE PSYCHOSIS: NUMBER NEEDED TO TREAT, NUMBER NEEDED TO HARM, AND LIKELIHOOD TO BE HELPED OR HARMED

Atul Sunny Luthra, McMaster University, Hamilton, ON, Canada; Homewood Health Centre, Guelph, ON, Canada

CLASSIFICATION OF BEHAVIORS IN DEMENTIA BASED ON SPECIFICATION OF THE THEORETICAL CONSTRUCT

Faculty Disclosures:
Myuri Ruthirakuhun
Nothing to disclose

Audun O. Vik-Mo
Nothing to disclose

Prasad R. Padala
Nothing to disclose

Leslie Citrome
Speakers Bureau: Acadia—Expert in the area
Consultant: Acadia—Expert in the area

Atul Sunny Luthra
Nothing to disclose
Alphabetical List of Presenters at Education Sessions

Adapa, Priyanka
*Treatment Issues in an Elderly Female with Repeat Inpatient Psychiatric Admissions*

Aftab, Awais
*Adherence and Psychiatric Symptoms in Older Non-Adherent Adults with Bipolar Disorder: Baseline Analysis of Randomized Controlled Trial Data*

Alyazidi, Athari
*Frailty Among Older Adult State Hospital Patients*

Austrom, Mary
*Psychological Wellbeing in Older Women Volunteers*

Azzazy, Suzanne
*When a Benzodiazepine Can Help Save a Life: Periodic and Malignant Catatonia in an Aging Veteran*

Balachandran, Silpa
*Antipsychotics, Antidepressants, Anticonvulsants, Melatonin, and Benzodiazepines for Behavioral and Psychological Symptoms of Dementia: a Systematic Review of Meta-analyses*

Barman, Rajdip
*Inappropriate Diagnosis and Antibiotic Use in a Geriatric Psychiatry Unit: Opportunities for Antibiotic Stewardship*

Benavente, Kimberly
*Serum Adiponectin is related to dementia*

Bingham, Kathleen
*Continuation Treatment of Remitted Psychotic Depression: The STOP-PD Study*

Blissett, Kecia-Ann
*From Stress to Serenity: The Use of Aromatherapy to Engage Patients in Care*

Chan, Carol
*Depression Severity in Relation to Clinical Symptom Onset in Mild Cognitive Impairment*

Chandrasekhar, Seetha
*Prescriber Compliance with the Pennsylvania Prescription Drug Monitoring Program (PDMP) for Sedative/Hypnotic Prescriptions and the Effects on Documentation of Sleep Symptoms in Elderly Outpatients in the VA Health System*

Chiu, Helen F.K.
*Comparison of a new cognitive test, the HKBC, with the MoCA for screening cognitive impairment in older people.*

Choi, Namkee
*Physical Health Problems as a Late-life Suicide Precipitant: Examination of Coroner/Medical Examiner and Law Enforcement Reports*
Cuperfain, Ari
*Caloric restriction and anti-aging: an evolutionary perspective*

Demla, Kavita
*Geriatric Psychiatry Fellowship Website Evaluation*

Dragonetti, Joseph
*Psychiatrists as Essential Proponents of Culture Change in the Improved Integration of Advance Care Planning*

Dragonetti, Joseph
*Embracing Hawaiian Culture: Applying Traditional Hawaiian Values to Modern Ethical Discussions*

Farahmand, Khodayar
*Long-term Effects of Valbenazine on Tardive Dyskinesia in Older and Younger Adults*

Fischer, Corinne
*Decreased Default Mode Network Functional Connectivity in Alzheimer’s Disease Patients with Delusions*

Fischer, Corinne
*Determining the impact of passive music exposure on brain activation and functional connectivity using fMRI in patients with early Alzheimer’s disease.*

Gandelman, Jason
*A Pilot Study: The Impact of Transdermal Nicotine on Late Life Depression*

Gatchel, Jennifer
*Examining Relationships Among Subjective Cognitive Concerns and Positive and Negative Affect in Cognitively Normal Older Adults Using a Weekly, Internet-Based Method: A Pilot Study*

Gebara, Marie Anne
*Brief Behavioral Treatment for Insomnia in Older Veterans with Late Life Treatment Resistant Depression*

Giambarberi, Luciana
*The Effects of Patient Expectancy on Telephone-Delivered Therapy Outcomes for Rural Older Adults with Generalized Anxiety Disorder*

Glass, Oliver
*Exciting Updates for Treating Older Age Patients in the Consultation-Liaison Setting*

Glass, Oliver
*Clozapine Induced Parotitis in the Elderly - A Cause for Sialorrhea*

Gopalakrishna, Ganesh
*The Clinical Phenotypes Of Anhedonia In Late Life Depression.*

Grinage, Colleen
*Enhancing the Quality of Care of the Elderly Veteran by Intense Geriatric Psychiatric Education of Nursing Staff in the Community Living Center.*
Hammond, John
*The Clock Drawing Test Serves as a Time Saving Surrogate for the Alabama Brief Cognitive Screener as a Method to Distinguish Mild Cognitive Impairment and Alzheimer's Disease*

Hammond, John
*The Alabama Brief Cognitive Screener Serves as a Method for Monitoring Cognitive Function Over Time in Neurodegenerative Disorders*

Hassell, Corey
*Analgesics in the Management of Behavioral and Psychological Symptoms of Dementia: A Systematic Review*

Hathaway, Elizabeth
*Impact of Hearing Aids and Cochlear Implants on Depressive Symptoms in Older Adults*

Howard, Courtney
*When Caring is Not Enough: Helping Caregivers Find Meaning Despite Rejection*

Husain-Krautter, Sehba
*Synopsis of outreach services provided to patients with complex nursing needs after transfer from a state hospital*

Iaboni, Andrea
*Usability and acceptability of a mobile dementia observations application (DObs) on a dementia care unit.*

Igase, Michiya
*Relationship between equol production status and sleep apnea syndrome in the elderly*

Jacobson, Jennifer
*Case of a Patient with Bipolar Disorder and Delayed Subcortical Dementia Onset Following Acute Lithium Toxicity*

Janjua, A.
*Exploring ketamine use in geriatric patients suffering from treatment-resistant depression*

Johnson, Katherine
*No Need to Count Sheep: Investigating an Online Insomnia Intervention among Older Adults*

Kang, Hyunsook
*Older Adults' Social Relations and Resiliency to Widowhood*

Kapoor, Arushi
*Amyotrophic Lateral Sclerosis and Late life depression*

Karim, Helmet
*Functional Activation During Emotion Processing in Late-Life Depression: Early Markers of Treatment Response*

Kelley, Susan
*Effectiveness of a Review and Reduction Strategy for Patients Receiving Atypical Neuroleptic Treatment for Behavioral and Psychological Symptoms of Dementia on Hospital Inpatient Geriatric Units*
Kim, Jun Won
Age and Sex-related Differences in Risk Factors for Elderly Suicide: Differentiating between Suicide Ideation and Attempts

Kleinfeld, Sarah
Physician Aid in Dying: Overview of Current Legal Status in the United States and Issues Pertinent to Geriatric Psychiatry

Ko, Mancia
Medication Adherence to Prescribed Opioids in Older Population

Kokubo, Naomi

Krause, Beatrix
White Matter Integrity in the Corpus Callosum is Associated with Resilience Factors in Geriatric Depression

Krivinko, Josh
Fingolimod Treatment Rescues Psychosis-Associated Behavioral Aberrations in APPswe/PSEN1dE9 Mice

Kumaran, Jananie
Prevalence and clinical correlates of delirium upon transition from acute to post acute care among patients on mechanical ventilation.

Lachmann, Mark
New Onset Post-Traumatic Stress Disorder in Long-term Care Home Residents with a Pre-existing Diagnosis of a Major Neurocognitive Disorder

Landry, Victoria
Successful Aging in Place: Physician Predictions of Prognosis Do Not Reliably Align With Patient Outcomes in a Memory Clinic Population

Lee, Catherine
When Paranoid Psychosis Becomes Dementia: Treatment of the Aging Patient with Chronic Psychosis

Leggett, Amanda
Finding fault: Criticism as a care management strategy and its impact on outcomes for dementia caregivers

Leggett, Amanda
Till Death Do Us Part: The Impact of Caring for a Spouse with Dementia on Caregiver Mortality

Lu, Brett
Utility of Intravenous ketamine as an alternative, effective depression treatment for hospitalized patients unable to receive electroconvulsive therapy due to medical risks

Luo, Rosa
Pharmacokinetics of Valbenazine and its Active Metabolite by Age Group
Macleod, Ashley
*Understanding sexuality in later life: Presenting a new conceptual model to define the sexual experience of older adults*

Mecca, Adam
*Initial Experience with PET Imaging of Synaptic Density (SV2A) in Alzheimer’s Disease: A New Biomarker for Clinical Trials?*

Mehra, Abhishek
*Pharmacological Strategies for Management of Behaviors Secondary to Dementia*

Mizuno, Akiko
*Relationships among Potential Precursors of Dementia: Subjective Cognitive Decline, Amyloid Burden, and Brain Hyperactivation*

Morcos, Nicholas
*Psychotherapy engagement and completion through peer support: implications for geriatric populations*

Morgan, Stefana
*Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief*

Morgan, Stefana
*Understanding Culture and Diversity in Spiritual Care*

Morgan, Stefana
*Personality Profiles are Associated with Psychological and Physical Symptoms in Older Oncology Patients Undergoing Chemotherapy*

Morin, Ruth
*Association of Subjective Cognitive Complaints and Objective Cognitive Impairment in Late Life Depression*

Muralidharan, Anjana
*Mental Illness Exacerbates Mobility Dysfunction Among Older Male Veterans*

Muralidharan, Anjana
*Age Moderates Gender Differences in Negative Symptoms Among Middle-Aged and Older Adults with Schizophrenia*

Ng, Norman
*Psychiatric Emergency Services and Older Adults: Where is the Right Place for Help?*

Padala, Kalpana
*Sham Validation In Transcranial Magnetic Stimulation*

Patel, Boski
*The Elephant in the Room: Race Matters*

Pluta, Chelsea
*Social Work Shortage; Can A Resource Packet Bridge the Gap in Care?*

Predescu, Iuliana
*Behavioral Activation Therapy for Older Adults with Depression: A Systematic Review of Effectiveness*
Rajaram, Ryan
Management of Anxiety Disorders in Parkinson’s Disease: A Case Series and Challenges in Treatment

Raji, Mukaila
Lower Risk of 10-Year Incident Cognitive Impairment for Mexican Americans Aged 75 and Older in 2004-05 Compared to 1993-94.

Ramirez, Francisco
An 18-day Lifestyle Program Decreases Cardiovascular Risk Factors in Geriatrics with Depression and Anxiety

Ramirez, Francisco
Reduction Of Anxiety And Benzodiazepines In 10 Days During A Medical Residential Depression Program

Ramirez, Francisco
8-Week Depression and Anxiety Program Reduces Benzodiazepine Usage Among Geriatrics

Rodriguez-Suarez, Mercedes
Coexisting Frailty and Depression in Older Veterans: Effects on Health Care Utilization.

Rubaye, Safa
Epidermal Growth Factor Family: Biomarkers of Education’s Effect on Cognition

Rymowicz, Robert
Physician Assisted Suicide Influences Suicide Rates Among Older Adults in Oregon

Sajatovic, Martha
Long-term Safety and Tolerability of Valbenazine in Older and Younger Adults with Tardive Dyskinesia

Samper-Ternent, Rafael
Using Technology to Enhance the Wellbeing of Older Adults with Dementia

Sansfaçon, Jeanne
Challenges of differentiating transient ischemic attacks from psychiatric symptoms in an older woman suffering from comorbid bipolar and generalized anxiety disorders

Scharrer, Melanie
Teaching Decisional Capacity Evaluation

Scher, Jordan
Quality improvement of resident discharge documentation and associated readmission rates in the geriatric population

Seritan, Andreea
Delivery of Psychiatric Care to Patients with Parkinson’s Disease Using Telemedicine

Serrano, Patricia
The Case of The Bright Splenium
Shah, Sina  
*Erratic Lithium Levels Following Vertical Sleeve Gastrectomy: A Case Report*

Shaukat, Sadia  
*Cruetzfeldt Jakob disease - A psychiatric presentation*

Shuvayev, Izabella  
*Comparison of Cognitive Status, Psychopathology, and Functional Performance of Minority Older Adults with and without Type 2 Diabetes*

Siddarth, Prabha  
*Clinical Correlates of Resilience Factors in Geriatric Depression*

Sundermann, Erin  
*Inflammation-Related Genes are Associated with Accelerated Aging in HIV*

Szucs, Anna  
*The personality of older attempters: a key to heterogeneity in suicidal behavior*

Teverovsky, Esther  
*The Implementation and Effectiveness of a Higher Level Outpatient Mental Health Care Program for Older Adults*

Van Zyl, Martin  
*A locality level clinical re-audit - Quality of documentation in patients electronic database following an initial consultation in Virtual Clinics.*

Varshney, Smita  
*Reliability and Validity of Co-operation Scale in Nursing Home Dementia Patients*

Wagner, Eveleigh  
*Community Awareness Model for Frontotemporal Dementia: Improving Recognition of Illness and Amplifying Support for Caregivers*

Wong, Wing Yee  
*Improving Competency in the Care of the Older Transgender Patient: A Case Study*

Wu, Hanjing  
*Epidermal growth factor and fibroblast growth factor-2 circulating levels in elderly with major depressive disorder*

Wu, Pauline  
*Neurocognitive Correlates of Resilience in Geriatric Depression*

Yu, Beverly  
*The Impact of Social Support and Spirituality on the Association between Stressful Life Events and Resilience among Older Hispanics and non-Hispanic Whites*

Zharkova, Tatyana  
*Treatment Dilemmas: Managing Antipsychotic Medication Risks in Elderly with Major Neurocognitive Disorder, Stroke and Psychosis*
Zwar, Larissa
*The Impact of Informal Caregiving on the Cognitive Function of Older Caregivers: Evidence from a Longitudinal, Population-Based Study*

Zyskowski, Sarah
*“Demographic, Clinical & Procedural Correlates of Hypertensive Surge during Electroconvulsive Therapy Procedure”*
## Poster Abstracts by Poster Title

( EI # - Indicates Early Investigator Session and Poster Number; NR # - Indicates New Research Session and Poster Number)

<table>
<thead>
<tr>
<th>Title</th>
<th>Final ID</th>
<th>Presenting Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploring Ketamine Use in Geriatric Patients Suffering From Treatment-Resistant Depression</td>
<td>EI 16</td>
<td>Janjua, A.</td>
</tr>
<tr>
<td>“Demographic, Clinical &amp; Procedural Correlates of Hypertensive Surge during Electroconvulsive Therapy Procedure”</td>
<td>EI 57</td>
<td>Zyskowski, Sarah</td>
</tr>
<tr>
<td>8-Week Depression and Anxiety Program Reduces Benzodiazepine Usage Among Geriatrics</td>
<td>NR 4</td>
<td>Ramirez, Francisco</td>
</tr>
<tr>
<td>A Locality Level Clinical Re-Audit—Quality of Documentation in Patients Electronic Database Following an Initial Consultation in Virtual Clinics</td>
<td>EI 62</td>
<td>van Zyl, Martin</td>
</tr>
<tr>
<td>A New Device-Aided Cognitive Function Test, User Experience-Trail Making Test (UX-TMT), Sensitively Detects Neuropsychological Characteristics in Patients with Mild Cognitive Impairment (MCI), Dementia, and Parkinson’s Disease</td>
<td>EI 28</td>
<td>Kokubo, Naomi</td>
</tr>
<tr>
<td>A Pilot Study: The Impact of Transdermal Nicotine on Late Life Depression</td>
<td>EI 14</td>
<td>Gandelman, Jason</td>
</tr>
<tr>
<td>Adherence and Psychiatric Symptoms in Older Non-Adherent Adults with Bipolar Disorder: Baseline Analysis of Randomized Controlled Trial Data</td>
<td>EI 12</td>
<td>Aftab, Awais</td>
</tr>
<tr>
<td>Age and Sex-related Differences in Risk Factors for Elderly Suicide: Differentiating between Suicide Ideation and Attempts</td>
<td>NR 5</td>
<td>Kim, Jun Won</td>
</tr>
<tr>
<td>Age Moderates Gender Differences in Negative Symptoms Among Middle-Aged and Older Adults with Schizophrenia</td>
<td>EI 11</td>
<td>Muralidharan, Anjana</td>
</tr>
<tr>
<td>Amyotrophic Lateral Sclerosis and Late life depression</td>
<td>EI 17</td>
<td>Kapoor, Arushi</td>
</tr>
<tr>
<td>An 18-day Lifestyle Program Decreases Cardiovascular Risk Factors in Geriatrics with Depression and Anxiety</td>
<td>EI 34</td>
<td>Ramirez, Francisco</td>
</tr>
<tr>
<td>Analgesics in the Management of Behavioral and Psychological Symptoms of Dementia: A Systematic Review</td>
<td>NR 12</td>
<td>Hassell, Corey</td>
</tr>
<tr>
<td>Antipsychotics, Antidepressants, Anticonvulsants, Melatonin, and Benzodiazepines for Behavioral and Psychological Symptoms of Dementia: a Systematic Review of Meta-analyses</td>
<td>EI 22</td>
<td>Balachandran, Silpa</td>
</tr>
<tr>
<td>Association of Subjective Cognitive Complaints and Objective Cognitive Impairment in Late Life Depression</td>
<td>EI 19</td>
<td>Morin, Ruth</td>
</tr>
<tr>
<td>Behavioral Activation Therapy for Older Adults with Depression: A Systematic Review of Effectiveness</td>
<td>EI 69</td>
<td>Predescu, Iuliana</td>
</tr>
<tr>
<td>Brief Behavioral Treatment for Insomnia in Older Veterans with Late Life Treatment Resistant Depression</td>
<td>EI 67</td>
<td>Gebara, Marie Anne</td>
</tr>
<tr>
<td>Caloric Restriction and Anti-Aging: An Evolutionary Perspective</td>
<td>EI 24</td>
<td>Cuperfain, Ari</td>
</tr>
<tr>
<td>Case of a Patient with Bipolar Disorder and Delayed Subcortical Dementia Onset Following Acute Lithium Toxicity</td>
<td>EI 27</td>
<td>Jacobson, Jennifer</td>
</tr>
<tr>
<td>Challenges of Differentiating Transient Ischemic Attacks From Psychiatric Symptoms in an Older Woman Suffering from Comorbid Bipolar and Generalized Anxiety Disorders</td>
<td>EI 48</td>
<td>Sansfaçon, Jeanne</td>
</tr>
<tr>
<td>Clinical Correlates of Resilience Factors in Geriatric Depression</td>
<td>NR 7</td>
<td>Siddarth, Prabha</td>
</tr>
<tr>
<td>Clozapine Induced Parotitis in the Elderly - A Cause for Sialorrhea</td>
<td>EI 4</td>
<td>Glass, Oliver</td>
</tr>
<tr>
<td>Coexisting Frailty and Depression in Older Veterans: Effects on Health Care Utilization</td>
<td>NR 6</td>
<td>Rodriguez-Suarez, Mercedes</td>
</tr>
<tr>
<td>Community Awareness Model for Frontotemporal Dementia: Improving Recognition of Illness and Amplifying Support for Caregivers</td>
<td>EI 38</td>
<td>Wagner, Eveleigh</td>
</tr>
<tr>
<td>Title</td>
<td>Author(s)</td>
<td>Type</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Comparison of a New Cognitive Test, the HKBC, with the MOCA for</td>
<td>Chiu, Helen F.K.</td>
<td>NR 10</td>
</tr>
<tr>
<td>Screening Cognitive Impairment in Older People</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison of Cognitive Status, Psychopathology, and Functional</td>
<td>Shuvayev, Izabella</td>
<td>EI 50</td>
</tr>
<tr>
<td>Performance of Minority Older Adults with and without Type 2 Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuation Treatment of Remitted Psychotic Depression: The STOP-</td>
<td>Bingham, Kathleen</td>
<td>EI 13</td>
</tr>
<tr>
<td>PD Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creutzfeldt Jakob Disease—A Psychiatric Presentation</td>
<td>Shaukat, Sadia</td>
<td>NR 33</td>
</tr>
<tr>
<td>Decreased Default Mode Network Functional Connectivity in Alzheimer's</td>
<td>Fischer, Corinne</td>
<td>NR 1</td>
</tr>
<tr>
<td>Disease Patients with Delusions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery of Psychiatric Care to Patients with Parkinson's Disease</td>
<td>Seritan, Andreea</td>
<td>NR 24</td>
</tr>
<tr>
<td>Using Telemedicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression Severity in Relation to Clinical Symptom Onset in Mild</td>
<td>Chan, Carol</td>
<td>NR 9</td>
</tr>
<tr>
<td>Cognitive Impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determining the Impact of Passive Music Exposure on Brain Activation</td>
<td>Fischer, Corinne</td>
<td>NR 2</td>
</tr>
<tr>
<td>and Functional Connectivity Using FMRI in Patients with Early</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alzheimer's Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectiveness of a Review and Reduction Strategy for Patients</td>
<td>Kelley, Susan</td>
<td>NR 18</td>
</tr>
<tr>
<td>Receiving Atypical Neuroleptic Treatment for Behavioral and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Symptoms of Dementia on Hospital Inpatient Geriatric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embracing Hawaiian Culture: Applying Traditional Hawaiian Values to</td>
<td>Dragonetti, Joseph</td>
<td>EI 2</td>
</tr>
<tr>
<td>Modern Ethical Discussions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhancing the Quality of Care of the Elderly Veteran by Intense</td>
<td>Grinage, Colleen</td>
<td>EI 55</td>
</tr>
<tr>
<td>Geriatric Psychiatric Education of Nursing Staff in the Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidermal Growth Factor and Fibroblast Growth Factor-2 Circulating</td>
<td>Wu, Hanjing</td>
<td>EI 21</td>
</tr>
<tr>
<td>Levels in Elderly with Major Depressive Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidermal Growth Factor Family: Biomarkers of Education’s Effect</td>
<td>Rubaye, Safa</td>
<td>EI 30</td>
</tr>
<tr>
<td>on Cognition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erratic Lithium Levels Following Vertical Sleeve Gastrectomy: A Case</td>
<td>Shah, Sina</td>
<td>EI 66</td>
</tr>
<tr>
<td>Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examining Relationships Among Subjective Cognitive Concerns and</td>
<td>Gatchel, Jennifer</td>
<td>EI 25</td>
</tr>
<tr>
<td>Positive and Negative Affect in Cognitively Normal Older Adults Using</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Weekly, Internet-Based Method: A Pilot Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exciting Updates for Treating Older Age Patients in the Consultation-</td>
<td>Glass, Oliver</td>
<td>EI 3</td>
</tr>
<tr>
<td>Liaison Setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding Fault: Criticism as A Care Management Strategy and Its</td>
<td>Leggett, Amanda</td>
<td>EI 5</td>
</tr>
<tr>
<td>Impact on Outcomes for Dementia Caregivers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fingolimod Treatment Rescues Psychosis-Associated Behavioral</td>
<td>Krivinko, Josh</td>
<td>NR 13</td>
</tr>
<tr>
<td>Aberrations in APPswe/PSEN1dE9 Mice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frailty Among Older Adult State Hospital Patients</td>
<td>Alyazidi, Athari</td>
<td>EI 42</td>
</tr>
<tr>
<td>From Stress to Serenity: The Use of Aromatherapy to Engage Patients</td>
<td>Blissett, Kecia-Ann</td>
<td>EI 54</td>
</tr>
<tr>
<td>in Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional Activation During Emotion Processing in Late-Life</td>
<td>Karim, Helmet</td>
<td>EI 18</td>
</tr>
<tr>
<td>Depression: Early Markers of Treatment Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geriatric Psychiatry Fellowship Website Evaluation</td>
<td>Demla, Kavita</td>
<td>EI 70</td>
</tr>
<tr>
<td>Impact of Hearing Aids and Cochlear Implants on Depressive Symptoms</td>
<td>Hathaway, Elizabeth</td>
<td>EI 56</td>
</tr>
<tr>
<td>in Older Adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving Competency in the Care of the Older Transgender Patient:</td>
<td>Wong, Wing Yee</td>
<td>NR 26</td>
</tr>
<tr>
<td>A Case Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inappropriate Diagnosis and Antibiotic Use in a Geriatric Psychiatry</td>
<td>Barman, Rajdip</td>
<td>EI 63</td>
</tr>
<tr>
<td>Unit; Opportunities for Antibiotic Stewardship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Type</td>
<td>Presenter</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Inflammation-Related Genes are Associated with Accelerated Aging in HIV</td>
<td>EI 53</td>
<td>Sundermann, Erin</td>
</tr>
<tr>
<td>Initial Experience with PET Imaging of Synaptic Density (SV2A) in Alzheimer’s Disease: A New Biomarker for Clinical Trials?</td>
<td>NR 14</td>
<td>Mecca, Adam</td>
</tr>
<tr>
<td>Long-term Effects of Valbenazine on Tardive Dyskinesia in Older and Younger Adults</td>
<td>NR 30</td>
<td>Farahmand, Khodayar</td>
</tr>
<tr>
<td>Long-term Safety and Tolerability of Valbenazine in Older and Younger Adults with Tardive Dyskinesia</td>
<td>NR 32</td>
<td>Sajatovic, Martha</td>
</tr>
<tr>
<td>Lower Risk of 10-Year Incident Cognitive Impairment for Mexican Americans Aged 75 and Older in 2004-05 Compared to 1993-94</td>
<td>NR 15</td>
<td>Raji, Mukaila</td>
</tr>
<tr>
<td>Management of Anxiety Disorders in Parkinson’s Disease: A Case Series and Challenges in Treatment</td>
<td>EI 33</td>
<td>Rajaram, Ryan</td>
</tr>
<tr>
<td>Medication Adherence to Prescribed Opioids in Older Population</td>
<td>NR 34</td>
<td>Ko, Mancia</td>
</tr>
<tr>
<td>Mental Illness Exacerbates Mobility Dysfunction Among Older Male Veterans</td>
<td>EI 10</td>
<td>Muralidharan, Anjana</td>
</tr>
<tr>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
<td>EI 7</td>
<td>Morgan, Stefana</td>
</tr>
<tr>
<td>Neurocognitive Correlates of Resilience in Geriatric Depression</td>
<td>NR 8</td>
<td>Wu, Pauline</td>
</tr>
<tr>
<td>New Onset Post-Traumatic Stress Disorder in Long-term Care Home Residents with a Pre-existing Diagnosis of a Major Neurocognitive Disorder</td>
<td>NR 19</td>
<td>Lachmann, Mark</td>
</tr>
<tr>
<td>No Need to Count Sheep: Investigating an Online Insomnia Intervention among Older Adults</td>
<td>NR 27</td>
<td>Johanson, Katherine</td>
</tr>
<tr>
<td>Older Adults’ Social Relations and Resiliency to Widowhood</td>
<td>NR 20</td>
<td>Kang, Hyunsook</td>
</tr>
<tr>
<td>Personality Profiles are Associated with Psychological and Physical Symptoms in Older Oncology Patients Undergoing Chemotherapy</td>
<td>EI 9</td>
<td>Morgan, Stefana</td>
</tr>
<tr>
<td>Pharmacokinetics of Valbenazine and its Active Metabolite by Age Group</td>
<td>NR 31</td>
<td>Luo, Rosa</td>
</tr>
<tr>
<td>Pharmacological Strategies for Management of Behaviors Secondary to Dementia</td>
<td>EI 36</td>
<td>Mehra, Abhishek</td>
</tr>
<tr>
<td>Physical Health Problems as a Late-life Suicide Precipitant: Examination of Coroner/Medical Examiner and Law Enforcement Reports</td>
<td>NR 29</td>
<td>Choi, Namkee</td>
</tr>
<tr>
<td>Physician Aid in Dying: Overview of Current Legal Status in the United States and Issues Pertinent to Geriatric Psychiatry</td>
<td>EI 45</td>
<td>Kleinfeld, Sarah</td>
</tr>
<tr>
<td>Physician Assisted Suicide Influences Suicide Rates Among Older Adults in Oregon</td>
<td>EI 47</td>
<td>Rymowicz, Robert</td>
</tr>
<tr>
<td>Prescriber Compliance with the Pennsylvania Prescription Drug Monitoring Program (PDMP) for Sedative/Hypnotic Prescriptions and the Effects on Documentation of Sleep Symptoms in Elderly Outpatients in the VA Health System</td>
<td>EI 64</td>
<td>Chandrasekhara, Seetha</td>
</tr>
<tr>
<td>Prevalence and Clinical Correlates of Delirium upon Transition From Acute to Post Acute Care among Patients on Mechanical Ventilation</td>
<td>EI 35</td>
<td>Kumaran, Jananie</td>
</tr>
<tr>
<td>Psychiatric Emergency Services and Older Adults: Where is the Right Place for Help?</td>
<td>EI 44</td>
<td>Ng, Norman</td>
</tr>
<tr>
<td>Psychiatrists as Essential Proponents of Culture Change in the Improved Integration of Advance Care Planning</td>
<td>EI 1</td>
<td>Dragonetti, Joseph</td>
</tr>
<tr>
<td>Psychological Wellbeing in Older Women Volunteers</td>
<td>NR 22</td>
<td>Austrom, Mary</td>
</tr>
<tr>
<td>Psychotherapy Engagement and Completion Through Peer Support: Implications for Geriatric Populations</td>
<td>EI 43</td>
<td>Morcos, Nicholas</td>
</tr>
<tr>
<td>Title</td>
<td>EI</td>
<td>Author</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---</td>
<td>----------------</td>
</tr>
<tr>
<td>Quality Improvement of Resident Discharge Documentation and Associated Readmission Rates in the Geriatric Population</td>
<td>61</td>
<td>Scher, Jordan</td>
</tr>
<tr>
<td>Reduction Of Anxiety And Benzodiazepines In 10 Days During A Medical Residential Depression Program</td>
<td>3</td>
<td>Ramirez, Francisco</td>
</tr>
<tr>
<td>Relationship between Equol Production Status and Sleep Apnea Syndrome in the Elderly</td>
<td>58</td>
<td>Igase, Michiya</td>
</tr>
<tr>
<td>Relationships among Potential Precursors of Dementia: Subjective Cognitive Decline, Amyloid Burden, and Brain Hyperactivation</td>
<td>29</td>
<td>Mizuno, Akiko</td>
</tr>
<tr>
<td>Reliability and Validity of Co-operation Scale in Nursing Home Dementia Patients</td>
<td>16</td>
<td>Varshney, Smita</td>
</tr>
<tr>
<td>Serum Adiponectin is Related to Dementia</td>
<td>23</td>
<td>Benavente, Kimberly</td>
</tr>
<tr>
<td>Sham Validation In Transcranial Magnetic Stimulation</td>
<td>28</td>
<td>Padala, Kalpana</td>
</tr>
<tr>
<td>Social Work Shortage; Can A Resource Packet Bridge the Gap in Care?</td>
<td>65</td>
<td>Pluta, Kalpana</td>
</tr>
<tr>
<td>Successful Aging in Place: Physician Predictions of Prognosis Do Not Reliably Align With Patient Outcomes in a Memory Clinic Population</td>
<td>59</td>
<td>Landry, Chelsea</td>
</tr>
<tr>
<td>Synopsis of Outreach Services Provided to Patients with Complex Nursing Needs after Transfer from a State Hospital</td>
<td>23</td>
<td>Husain-Krautter, Sehba</td>
</tr>
<tr>
<td>Teaching Decisional Capacity Evaluation</td>
<td>49</td>
<td>Scharrer, Melanie</td>
</tr>
<tr>
<td>The Alabama Brief Cognitive Screener Serves as a Method for Monitoring Cognitive Function Over Time in Neurodegenerative Disorders</td>
<td>11</td>
<td>Hammond, John</td>
</tr>
<tr>
<td>The Case of The Bright Splenium</td>
<td>52</td>
<td>Serrano, Patricia</td>
</tr>
<tr>
<td>The Clinical Phenotypes Of Anhedonia In Late Life Depression</td>
<td>15</td>
<td>Gopalakrishna, Ganesh</td>
</tr>
<tr>
<td>The Clock Drawing Test Serves as a Time Saving Surrogate for the Alabama Brief Cognitive Screener as a Method to Distinguish Mild Cognitive Impairment and Alzheimer's Disease</td>
<td>26</td>
<td>Hammond, John</td>
</tr>
<tr>
<td>The Effects of Patient Expectancy on Telephone-Delivered Therapy Outcomes for Rural Older Adults with Generalized Anxiety Disorder</td>
<td>68</td>
<td>Giambarberi, Luciana</td>
</tr>
<tr>
<td>The Elephant in the Room: Race Matters</td>
<td>39</td>
<td>Patel, Boski</td>
</tr>
<tr>
<td>The Impact of Informal Caregiving on the Cognitive Function of Older Caregivers: Evidence from a Longitudinal, Population-Based Study</td>
<td>21</td>
<td>Zwar, Larissa</td>
</tr>
<tr>
<td>The Impact of Social Support and Spirituality on the Association between Stressful Life Events and Resilience among Older Hispanics and non-Hispanic Whites</td>
<td>40</td>
<td>Yu, Beverly</td>
</tr>
<tr>
<td>The Implementation and Effectiveness of a Higher Level Outpatient Mental Health Care Program for Older Adults</td>
<td>25</td>
<td>Teverovsky, Esther</td>
</tr>
<tr>
<td>The Personality of Older Attempters: A Key to Heterogeneity in Suicidal Behavior</td>
<td>20</td>
<td>Szucs, Anna</td>
</tr>
<tr>
<td>Till Death Do Us Part: The Impact of Caring for a Spouse with Dementia on Caregiver Mortality</td>
<td>6</td>
<td>Leggett, Amanda</td>
</tr>
<tr>
<td>Treatment Dilemmas: Managing Antipsychotic Medication Risks in Elderly with Major Neurocognitive Disorder, Stroke and Psychosis</td>
<td>32</td>
<td>Zharkova, Tatyana</td>
</tr>
<tr>
<td>Treatment Issues in an Elderly Female with Repeat Inpatient Psychiatric Admissions</td>
<td>41</td>
<td>Adapa, Priyanka</td>
</tr>
<tr>
<td>Understanding Culture and Diversity in Spiritual Care</td>
<td>8</td>
<td>Morgan, Stefana</td>
</tr>
<tr>
<td>Understanding Sexuality in Later Life: Presenting a New Conceptual Model to Define the Sexual Experience of Older Adults</td>
<td>60</td>
<td>Macleod, Ashley</td>
</tr>
<tr>
<td>Usability and Acceptability of A Mobile Dementia Observations Application (Dobs) on A Dementia Care Unit</td>
<td>17</td>
<td>Iaboni, Andrea</td>
</tr>
<tr>
<td>Using Technology to Enhance the Wellbeing of Older Adults with Dementia</td>
<td>31</td>
<td>Samper-Ternent, Rafael</td>
</tr>
<tr>
<td>Title</td>
<td>NR/EI</td>
<td>Author</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Utility of Intravenous Ketamine as an Alternative, Effective Depression Treatment for Hospitalized Patients Unable to Receive Electroconvulsive Therapy Due to Medical Risks</td>
<td>NR 36</td>
<td>Lu, Brett</td>
</tr>
<tr>
<td>When a Benzodiazepine Can Help Save a Life: Periodic and Malignant Catatonia in an Aging Veteran</td>
<td>NR 35</td>
<td>Azzazy, Suzanne</td>
</tr>
<tr>
<td>When Caring is Not Enough: Helping Caregivers Find Meaning Despite Rejection</td>
<td>EI 37</td>
<td>Howard, Courtney</td>
</tr>
<tr>
<td>When Paranoid Psychosis Becomes Dementia: Treatment of the Aging Patient with Chronic Psychosis</td>
<td>EI 46</td>
<td>Lee, Catherine</td>
</tr>
<tr>
<td>White Matter Integrity in the Corpus Callosum is Associated with Resilience Factors in Geriatric Depression</td>
<td>EI 51</td>
<td>Krause, Beatrix</td>
</tr>
</tbody>
</table>
**Poster Abstracts by First Author**

*(EI # - Indicates Early Investigator Session and Poster Number; NR # - Indicates New Research Session and Poster Number)*

<table>
<thead>
<tr>
<th>Presenting Author</th>
<th>Title</th>
<th>Final ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapa, Priyanka</td>
<td>Treatment Issues in an Elderly Female with Repeat Inpatient Psychiatric Admissions</td>
<td>EI 41</td>
</tr>
<tr>
<td>Aftab, Awais</td>
<td>Adherence and Psychiatric Symptoms in Older Non-Adherent Adults with Bipolar Disorder: Baseline Analysis of Randomized Controlled Trial Data</td>
<td>EI 12</td>
</tr>
<tr>
<td>Alyazidi, Athari</td>
<td>Frailty Among Older Adult State Hospital Patients</td>
<td>EI 42</td>
</tr>
<tr>
<td>Austrom, Mary</td>
<td>Psychological Wellbeing in Older Women Volunteers</td>
<td>NR 22</td>
</tr>
<tr>
<td>Azzazy, Suzanne</td>
<td>When a Benzodiazepine Can Help Save a Life: Periodic and Malignant Catatonia in an Aging Veteran</td>
<td>NR 35</td>
</tr>
<tr>
<td>Balachandran, Silpa</td>
<td>Antipsychotics, Antidepressants, Anticonvulsants, Melatonin, and Benzodiazepines for Behavioral and Psychological Symptoms of Dementia: A Systematic Review of Meta-analyses</td>
<td>EI 22</td>
</tr>
<tr>
<td>Barman, Rajdip</td>
<td>Inappropriate Diagnosis and Antibiotic Use in a Geriatric Psychiatry Unit; Opportunities for Antibiotic Stewardship</td>
<td>EI 63</td>
</tr>
<tr>
<td>Benavente, Kimberly</td>
<td>Serum Adiponectin is Related to Dementia</td>
<td>EI 23</td>
</tr>
<tr>
<td>Bingham, Kathleen</td>
<td>Continuation Treatment of Remitted Psychotic Depression: The STOP-PD Study</td>
<td>EI 13</td>
</tr>
<tr>
<td>Blissett, Kezia-Ann</td>
<td>From Stress to Serenity: The Use of Aromatherapy to Engage Patients in Care</td>
<td>EI 54</td>
</tr>
<tr>
<td>Chan, Carol</td>
<td>Depression Severity in Relation to Clinical Symptom Onset in Mild Cognitive Impairment</td>
<td>NR 9</td>
</tr>
<tr>
<td>Chandrasekhara, Seetha</td>
<td>Prescriber Compliance with the Pennsylvania Prescription Drug Monitoring Program (PDMP) for Sedative/Hypnotic Prescriptions and the Effects on Documentation of Sleep Symptoms in Elderly Outpatients in the VA Health System</td>
<td>EI 64</td>
</tr>
<tr>
<td>Chiu, Helen F.K.</td>
<td>Comparison of a New Cognitive Test, the HKBC, with the MOCA for Screening Cognitive Impairment in Older People</td>
<td>NR 10</td>
</tr>
<tr>
<td>Choi, Namkee</td>
<td>Physical Health Problems as a Late-life Suicide Precipitant: Examination of Coroner/Medical Examiner and Law Enforcement Reports</td>
<td>NR 29</td>
</tr>
<tr>
<td>Cuperfain, Ari</td>
<td>Caloric Restriction and Anti-Aging: An Evolutionary Perspective</td>
<td>EI 24</td>
</tr>
<tr>
<td>Demla, Kavita</td>
<td>Geriatric Psychiatry Fellowship Website Evaluation</td>
<td>EI 70</td>
</tr>
<tr>
<td>Dragonetti, Joseph</td>
<td>Psychiatrists as Essential Proponents of Culture Change in the Improved Integration of Advance Care Planning</td>
<td>EI 1</td>
</tr>
<tr>
<td>Dragonetti, Joseph</td>
<td>Embracing Hawaiian Culture: Applying Traditional Hawaiian Values to Modern Ethical Discussions</td>
<td>EI 2</td>
</tr>
<tr>
<td>Farahmand, Khodayar</td>
<td>Long-term Effects of Valbenazine on Tardive Dyskinesia in Older and Younger Adults</td>
<td>NR 30</td>
</tr>
<tr>
<td>Fischer, Corinne</td>
<td>Decreased Default Mode Network Functional Connectivity in Alzheimer's Disease Patients with Delusions</td>
<td>NR 1</td>
</tr>
<tr>
<td>Fischer, Corinne</td>
<td>Determining the Impact of Passive Music Exposure on Brain Activation and Functional Connectivity Using FMRI in Patients with Early Alzheimer's Disease</td>
<td>NR 2</td>
</tr>
<tr>
<td>Gandelman, Jason</td>
<td>A Pilot Study: The Impact of Transdermal Nicotine on Late Life Depression</td>
<td>EI 14</td>
</tr>
<tr>
<td>Gatchel, Jennifer</td>
<td>Examining Relationships Among Subjective Cognitive Concerns and Positive and Negative Affect in Cognitively Normal Older Adults Using a Weekly, Internet-Based Method: A Pilot Study</td>
<td>EI 25</td>
</tr>
<tr>
<td>Gebara, Marie Anne</td>
<td>Brief Behavioral Treatment for Insomnia in Older Veterans with Late Life Treatment Resistant Depression</td>
<td>EI 67</td>
</tr>
<tr>
<td>Giambbarberi, Luciana</td>
<td>The Effects of Patient Expectancy on Telephone-Delivered Therapy Outcomes for Rural Older Adults with Generalized Anxiety Disorder</td>
<td>EI 68</td>
</tr>
<tr>
<td>Glass, Oliver</td>
<td>Exciting Updates for Treating Older Age Patients in the Consultation-Liaison Setting</td>
<td>EI 3</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Glass, Oliver</td>
<td>Clozapine Induced Parotitis in the Elderly - A Cause for Sialorrhea</td>
<td>EI 4</td>
</tr>
<tr>
<td>Gopalakrishna, Ganesh</td>
<td>The Clinical Phenotypes Of Anhedonia In Late Life Depression</td>
<td>EI 15</td>
</tr>
<tr>
<td>Grinage, Colleen</td>
<td>Enhancing the Quality of Care of the Elderly Veteran by Intense Geriatric Psychiatric Education of Nursing Staff in the Community Living Center</td>
<td>EI 55</td>
</tr>
<tr>
<td>Hammond, John</td>
<td>The Clock Drawing Test Serves as a Time Saving Surrogate for the Alabama Brief Cognitive Screener as a Method to Distinguish Mild Cognitive Impairment and Alzheimer's Disease</td>
<td>EI 26</td>
</tr>
<tr>
<td>Hammond, John</td>
<td>The Alabama Brief Cognitive Screener Serves as a Method for Monitoring Cognitive Function Over Time in Neurodegenerative Disorders</td>
<td>NR 11</td>
</tr>
<tr>
<td>Hassell, Corey</td>
<td>Analgesics in the Management of Behavioral and Psychological Symptoms of Dementia: A Systematic Review</td>
<td>NR 12</td>
</tr>
<tr>
<td>Hathaway, Elizabeth</td>
<td>Impact of Hearing Aids and Cochlear Implants on Depressive Symptoms in Older Adults</td>
<td>EI 56</td>
</tr>
<tr>
<td>Howard, Courtney</td>
<td>When Caring is Not Enough: Helping Caregivers Find Meaning Despite Rejection</td>
<td>EI 37</td>
</tr>
<tr>
<td>Hussain-Krautter, Sehba</td>
<td>Synopsis of Outreach Services Provided to Patients with Complex Nursing Needs after Transfer from a State Hospital</td>
<td>NR 23</td>
</tr>
<tr>
<td>Iaboni, Andrea</td>
<td>Usability and Acceptability of A Mobile Dementia Observations Application (Dobs) on A Dementia Care Unit</td>
<td>NR 17</td>
</tr>
<tr>
<td>Igase, Michiya</td>
<td>Relationship between Equol Production Status and Sleep Apnea Syndrome in the Elderly</td>
<td>EI 58</td>
</tr>
<tr>
<td>Jacobson, Jennifer</td>
<td>Case of a Patient with Bipolar Disorder and Delayed Subcortical Dementia Onset Following Acute Lithium Toxicity</td>
<td>EI 27</td>
</tr>
<tr>
<td>Janjua, A.</td>
<td>Exploring Ketamine Use in Geriatric Patients Suffering From Treatment-Resistant Depression</td>
<td>EI 16</td>
</tr>
<tr>
<td>Johanson, Katherine</td>
<td>No Need to Count Sheep: Investigating an Online Insomnia Intervention among Older Adults</td>
<td>NR 27</td>
</tr>
<tr>
<td>Kang, Hyunsook</td>
<td>Older Adults' Social Relations and Resiliency to Widowhood</td>
<td>NR 20</td>
</tr>
<tr>
<td>Kapoor, Arushi</td>
<td>Amyotrophic Lateral Sclerosis and Late life depression</td>
<td>EI 17</td>
</tr>
<tr>
<td>Karim, Helmet</td>
<td>Functional Activation During Emotion Processing in Late-Life Depression: Early Markers of Treatment Response</td>
<td>EI 18</td>
</tr>
<tr>
<td>Kelley, Susan</td>
<td>Effectiveness of a Review and Reduction Strategy for Patients Receiving Atypical Neuroleptic Treatment for Behavioral and Psychological Symptoms of Dementia on Hospital Inpatient Geriatric Units</td>
<td>NR 18</td>
</tr>
<tr>
<td>Kim, Jun Won</td>
<td>Age and Sex-related Differences in Risk Factors for Elderly Suicide: Differentiating between Suicide Ideation and Attempts</td>
<td>NR 5</td>
</tr>
<tr>
<td>Kleinfeld, Sarah</td>
<td>Physician Aid in Dying: Overview of Current Legal Status in the United States and Issues Pertinent to Geriatric Psychiatry</td>
<td>EI 45</td>
</tr>
<tr>
<td>Ko, Mancia</td>
<td>Medication Adherence to Prescribed Opioids in Older Population</td>
<td>NR 34</td>
</tr>
<tr>
<td>Kokubo, Naomi</td>
<td>A New Device-Aided Cognitive Function Test, User Experience-Trail Making Test (UX-TMT), Sensitive Detects Neuropsychological Characteristics in Patients with Mild Cognitive Impairment (MCI), Dementia, and Parkinson's Disease</td>
<td>EI 28</td>
</tr>
<tr>
<td>Krause, Beatrix</td>
<td>White Matter Integrity in the Corpus Callosum is Associated with Resilience Factors in Geriatric Depression</td>
<td>EI 51</td>
</tr>
<tr>
<td>Krivinko, Josh</td>
<td>Fingolimod Treatment Rescues Psychosis-Associated Behavioral Aberrations in APPswe/ PSEN1dE9 Mice</td>
<td>NR 13</td>
</tr>
<tr>
<td>Kumaran, Jananie</td>
<td>Prevalence and Clinical Correlates of Delirium upon Transition From Acute to Post Acute Care among Patients on Mechanical Ventilation</td>
<td>EI 35</td>
</tr>
<tr>
<td>Lachmann, Mark</td>
<td>New Onset Post-Traumatic Stress Disorder in Long-term Care Home Residents with a Pre-existing Diagnosis of a Major Neurocognitive Disorder</td>
<td>NR 19</td>
</tr>
<tr>
<td>Landry, Victoria</td>
<td>Successful Aging in Place: Physician Predictions of Prognosis Do Dot Reliably Align With Patient Outcomes in a Memory Clinic Population</td>
<td>EI 59</td>
</tr>
<tr>
<td>Lee, Catherine</td>
<td>When Paranoid Psychosis Becomes Dementia: Treatment of the Aging Patient with Chronic Psychosis</td>
<td>EI 46</td>
</tr>
<tr>
<td>Title</td>
<td>Author(s)</td>
<td>Abstract</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Finding Fault: Criticism as A Care Management Strategy and Its Impact on Outcomes for Dementia Caregivers</td>
<td>Leggett, Amanda</td>
<td>Utility of Intravenous Ketamine as an Alternative, Effective Depression Treatment for Hospitalized Patients Unable to Receive Electroconvulsive Therapy Due to Medical Risks</td>
</tr>
<tr>
<td>Till Death Do Us Part: The Impact of Caring for a Spouse with Dementia on Caregiver Mortality</td>
<td>Leggett, Amanda</td>
<td>Pharmacokinetics of Valbenazine and its Active Metabolite by Age Group</td>
</tr>
<tr>
<td>Utility of Intravenous Ketamine as an Alternative, Effective Depression Treatment for Hospitalized Patients Unable to Receive Electroconvulsive Therapy Due to Medical Risks</td>
<td>Lu, Brett</td>
<td>Understanding sexuality in later life: Presenting a new conceptual model to define the sexual experience of older adults</td>
</tr>
<tr>
<td>Pharmacokinetics of Valbenazine and its Active Metabolite by Age Group</td>
<td>Luo, Rosa</td>
<td>Initial Experience with PET Imaging of Synaptic Density (SV2A) in Alzheimer’s Disease: A New Biomarker for Clinical Trials?</td>
</tr>
<tr>
<td>Pharmacological Strategies for Management of Behaviors Secondary to Dementia</td>
<td>Macleod, Ashley</td>
<td>Relationships among Potential Precursors of Dementia: Subjective Cognitive Decline, Amyloid Burden, and Brain Hyperactivation</td>
</tr>
<tr>
<td>Psychotherapy Engagement and Completion Through Peer Support: Implications for Geriatric Populations</td>
<td>Mecca, Adam</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Understanding Culture and Diversity in Spiritual Care</td>
<td>Morgan, Stefana</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Personality Profiles are Associated with Psychological and Physical Symptoms in Older Oncology Patients Undergoing Chemotherapy</td>
<td>Morgan, Stefana</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Association of Subjective Cognitive Complaints and Objective Cognitive Impairment in Late Life Depression</td>
<td>Morin, Ruth</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Mental Illness Exacerbates Mobility Dysfunction Among Older Male Veterans</td>
<td>Muralidharan, Anjana</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Age Moderates Gender Differences in Negative Symptoms Among Middle-Aged and Older Adults with Schizophrenia</td>
<td>Muralidharan, Anjana</td>
<td>Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief</td>
</tr>
<tr>
<td>Psychiatric Emergency Services and Older Adults: Where is the Right Place for Help?</td>
<td>Ng, Norman</td>
<td>Sham Validation In Transcranial Magnetic Stimulation</td>
</tr>
<tr>
<td>The Elephant in the Room: Race Matters</td>
<td>Patel, Boski</td>
<td>The Elephant in the Room: Race Matters</td>
</tr>
<tr>
<td>Behavioral Activation Therapy for Older Adults with Depression: A Systematic Review of Effectiveness</td>
<td>Predescu, Iuliana</td>
<td>Behavioral Activation Therapy for Older Adults with Depression: A Systematic Review of Effectiveness</td>
</tr>
<tr>
<td>An 18-day Lifestyle Program Decreases Cardiovascular Risk Factors in Geriatrics with Depression and Anxiety</td>
<td>Ramirez, Francisco</td>
<td>An 18-day Lifestyle Program Decreases Cardiovascular Risk Factors in Geriatrics with Depression and Anxiety</td>
</tr>
<tr>
<td>Reduction Of Anxiety And Benzodiazepines In 10 Days During A Medical Residential Depression Program</td>
<td>Ramirez, Francisco</td>
<td>Reduction Of Anxiety And Benzodiazepines In 10 Days During A Medical Residential Depression Program</td>
</tr>
<tr>
<td>8-Week Depression and Anxiety Program Reduces Benzodiazepine Usage Among Geriatrics</td>
<td>Ramirez, Francisco</td>
<td>8-Week Depression and Anxiety Program Reduces Benzodiazepine Usage Among Geriatrics</td>
</tr>
<tr>
<td>Coexisting Frailty and Depression in Older Veterans: Effects on Health Care Utilization</td>
<td>Rodriguez-Suarez, Mercedes</td>
<td>Coexisting Fraility and Depression in Older Veterans: Effects on Health Care Utilization</td>
</tr>
<tr>
<td>Physician Assisted Suicide Influences Suicide Rates Among Older Adults in Oregon</td>
<td>Rymowicz, Robert</td>
<td>Physician Assisted Suicide Influences Suicide Rates Among Older Adults in Oregon</td>
</tr>
<tr>
<td>Long-term Safety and Tolerability of Valbenazine in Older and Younger Adults with Tardive Dyskinesia</td>
<td>Sajatovic, Martha</td>
<td>Long-term Safety and Tolerability of Valbenazine in Older and Younger Adults with Tardive Dyskinesia</td>
</tr>
<tr>
<td>Using Technology to Enhance the Wellbeing of Older Adults with Dementia</td>
<td>Samper-Ternent, Rafael</td>
<td>Using Technology to Enhance the Wellbeing of Older Adults with Dementia</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Sansfaçon, Jeanne</td>
<td>Challenges of Differentiating Transient Ischemic Attacks From Psychiatric Symptoms in an Older Woman Suffering from Comorbid Bipolar and Generalized Anxiety Disorders</td>
<td>EI 48</td>
</tr>
<tr>
<td>Scharrer, Melanie</td>
<td>Teaching Decisional Capacity Evaluation</td>
<td>EI 49</td>
</tr>
<tr>
<td>Scher, Jordan</td>
<td>Quality improvement of resident discharge documentation and associated readmission rates in the geriatric population</td>
<td>EI 61</td>
</tr>
<tr>
<td>Seritan, Andrea</td>
<td>Delivery of Psychiatric Care to Patients with Parkinson's Disease Using Telemedicine</td>
<td>NR 24</td>
</tr>
<tr>
<td>Serrano, Patricia</td>
<td>The Case of The Bright Splenium</td>
<td>EI 52</td>
</tr>
<tr>
<td>Shah, Sina</td>
<td>Erratic Lithium Levels Following Vertical Sleeve Gastrectomy: A Case Report</td>
<td>EI 66</td>
</tr>
<tr>
<td>Shaukat, Sadia</td>
<td>Creutzfeldt Jakob disease - A psychiatric presentation</td>
<td>NR 33</td>
</tr>
<tr>
<td>Shuvayev, Izabella</td>
<td>Comparison of Cognitive Status, Psychopathology, and Functional Performance of Minority Older Adults with and without Type 2 Diabetes</td>
<td>EI 50</td>
</tr>
<tr>
<td>Siddarth, Prabha</td>
<td>Clinical Correlates of Resilience Factors in Geriatric Depression</td>
<td>NR 7</td>
</tr>
<tr>
<td>Sundermann, Erin</td>
<td>Inflammation-Related Genes are Associated with Accelerated Aging in HIV</td>
<td>EI 53</td>
</tr>
<tr>
<td>Szucs, Anna</td>
<td>The Personality of Older Attempters: A Key to Heterogeneity in Suicidal Behavior</td>
<td>EI 20</td>
</tr>
<tr>
<td>Teverovsky, Esther</td>
<td>The Implementation and Effectiveness of a Higher Level Outpatient Mental Health Care Program for Older Adults</td>
<td>NR 25</td>
</tr>
<tr>
<td>van Zyl, Martin</td>
<td>A Locality Level Clinical Re-Audit—Quality of Documentation in Patients Electronic Database Following an Initial Consultation in Virtual Clinics</td>
<td>EI 62</td>
</tr>
<tr>
<td>Varshney, Smita</td>
<td>Reliability and Validity of Co-operation Scale in Nursing Home Dementia Patients</td>
<td>NR 16</td>
</tr>
<tr>
<td>Wagner, Eveleigh</td>
<td>Community Awareness Model for Frontotemporal Dementia: Improving Recognition of Illness and Amplifying Support for Caregivers</td>
<td>EI 38</td>
</tr>
<tr>
<td>Wong, Wing Yee</td>
<td>Improving Competency in the Care of the Older Transgender Patient: A Case Study</td>
<td>NR 26</td>
</tr>
<tr>
<td>Wu, Hanjing</td>
<td>Epidermal Growth Factor and Fibroblast Growth Factor-2 Circulating Levels in Elderly with Major Depressive Disorder</td>
<td>EI 21</td>
</tr>
<tr>
<td>Wu, Pauline</td>
<td>Neurocognitive Correlates of Resilience in Geriatric Depression</td>
<td>NR 8</td>
</tr>
<tr>
<td>Yu, Beverly</td>
<td>The Impact of Social Support and Spirituality on the Association between Stressful Life Events and Resilience among Older Hispanics and non-Hispanic Whites</td>
<td>EI 40</td>
</tr>
<tr>
<td>Zharkova, Tatyana</td>
<td>Treatment Dilemmas: Managing Antipsychotic Medication Risks in Elderly with Major Neurocognitive Disorder, Stroke and Psychosis</td>
<td>EI 32</td>
</tr>
<tr>
<td>Zwar, Larissa</td>
<td>The Impact of Informal Caregiving on the Cognitive Function of Elderly Caregivers: Evidence from a Longitudinal, Population-Based Study</td>
<td>NR 21</td>
</tr>
<tr>
<td>Zyskowski, Sarah</td>
<td>“Demographic, Clinical &amp; Procedural Correlates of Hypertensive Surge during Electroconvulsive Therapy Procedure”</td>
<td>EI 57</td>
</tr>
</tbody>
</table>
Psychiatrists as Essential Proponents of Culture Change in the Improved Integration of Advance Care Planning
Joseph Dragonetti, MD
Behavioral Health, Tripler Army Medical Center, Kaneohe, HI

Introduction: Despite creating standards and publishing calls to action for healthcare providers and institutions, the effective implementation of advance care planning (ACP) in the United States remains alarmingly low. There are myriad barriers to the effective integration of ACP such as time, money, knowledge, comfort, access and lack of resources. While some groups have begun to study barriers to ACP, there still remains an overall lack of a cohesive understanding of the problems and ways forward. Research shows that the potential benefits of ACP for patients, families and providers are very high and yet their utilization and implementation remains low. Interventions studied thus far have generally proven either too costly to the patient and healthcare system or too simplistic to effect meaningful change. The fact then becomes clear that what is truly called for, in addition to discrete interventions, is an overall culture change regarding how the medical community approaches ACP for patients and families. The field of psychiatry sits in a distinct position of being able to lead and advocate for this culture change as a result of psychiatrists’ expertise in providing comfort and education while discussing topics that are otherwise uncomfortable to discuss or poorly understood.

Methods: This project combines literature review with a survey of local practices. Chosen literature focuses on the current state of ACP utilization and the barriers to successful integration of ACP into routine practice. The Institute of Medicine’s 2015 report Dying in America: Improving quality and honoring individual preferences near the end of life provides a particularly appropriate discussion of the topic. A local survey of practice is included in order to facilitate discussion and bring into the conversation current barriers that local practitioners and institutions are encountering in the process of increasing the integration of ACP.

Results: Literature review reveals a consensus that ACP is difficult to implement in a uniformly effective manner. However, there is high variability in the barriers encountered to integrating ACP and the means proposed to overcome these barriers. Major barriers outlined include inadequate knowledge of ACP, an absence of policies and systems in place to address the issue, a lack of time to hold proper discussions in routine practice and an overall discomfort in participating in ACP discussions. Proposed interventions include outlining specific roles of different providers and staff within the healthcare system, education of healthcare providers, group discussions to educate patients and promote self-efficacy, utilization of standardized tools in patient-provider discussions and documentation, creating opportunities for ACP-specific patient encounters and identifying at-risk populations who would benefit most from ACP discussions. Local practice surveys reveal similar experiences both in the barriers encountered and the heterogeneity of interventions in place to address such barriers.

Conclusions: The first element in a culture change is opening lines of communication, because only through increased exposure will patients and providers increase their comfort with the subject matter of advance care planning. The subsequent step in promoting culture change is education. To facilitate accessible and meaningful education, the roles of specific healthcare workers will need to be defined in addition to clarifying the patient’s central role in the ACP process. A conceptual model of the ACP learning process can aid in matching educational interventions to appropriate audiences. The transtheoretical model of behavior change is an established and familiar model that has been shown to be applicable to this type of learning.

As the culture begins to shift, interest and understanding about the ACP process will continue to blossom, which then facilitates changes in behavior that improve the integration of ACP into routine healthcare practice. Bringing ACP to the point-of-care as a multi-disciplinary targeted intervention that is appropriate for all patients will then immensely increase the utilization and effectiveness of the conversations and documents that outline patient preferences. This practice will then ensure ethical practice by emphasizing patient autonomy when weighing risks and benefits of medical interventions. The improved communication will allow for better outcomes that on a societal scale increase patient satisfaction and streamline expenditures. Psychiatrists now find themselves poised in a unique role in their ability to facilitate this process of culture change. As experts in appreciating and understanding the nuances of human thoughts, emotions and behaviors, psychiatrist can help the medical community as a whole to evaluate and optimize patient and provider knowledge, comfort and skill in approaching the subject of advance care planning.
Introduction: Clinical situations in which the moral and ethical principles of healthcare providers are challenged can be some of the most personally and professionally difficult scenarios in which a healthcare provider finds him or herself. The inherent difficulty of these situations also underlies how much benefit a skilled clinician may provide for his or her patient. In ethically complex situations, this benefit is often obtained by skillful communication with the patient and involved family and friends. It is important that such communication take place with a language, thought process and degree of complexity that is accessible to the patient and others involved. One major aspect of skillful communication is appropriate cultural competency.

Modern day Hawaii hosts an immensely diverse population with many races and ethnicities represented as well as a high degree of mixed racial heritage reported. Overall, nearly 78% of the state’s population identifies as minority. While creating a very rich and diverse culture, this also creates unique challenges in cultural competency. One approach to understanding the many cultures that have migrated to Hawaii is to begin by examining the traditional Hawaiian belief systems, which often serve as the foundation for many of the modern beliefs. Specifically of interest in the current context are the elements of the traditional Hawaiian belief systems that instruct people on the tenets of moral and ethical behavior. Seeing that local values and thought process may differ from what modern medical providers are accustomed to, we can facilitate communication and understanding in complex clinical and ethical situations by acknowledging and appreciating the foundations of Hawaiian culture and beliefs.

Methods: This review encompasses pertinent medical and cultural literature in concert with interviews of local leaders and experts in the aspects of morality and ethics within the traditional Hawaiian values. Medical literature has been chosen to focus on medical ethics, cultural competency, interpersonal communication and related fields. Other literature has been chosen to focus on the key tenets of the Hawaiian world-view with emphasis on morality, ethics, health, wellness and the interface with healers. Experts interviewed include medical and non-medical personnel with an intimate understanding and appreciation of the diverse beliefs and lifestyles of the local populace.

Results: In reviewing the language, there are many commonly used Hawaiian words that can aid providers in communication with patients and families. While most residents of Hawaii speak English as their primary language, many Hawaiian words are regularly woven into the local dialect. The traditional values and beliefs prove quite influential in affecting the thought process and beliefs of current inhabitants of the Hawaiian Islands. Along with such insights, unique challenges were encountered in integrating the diverse sets of beliefs into unifying underlying principles to help unfamiliar learners begin to understand the traditional Hawaiian values and ideals.

Conclusions: Cultural competency in medical practice begins with acknowledgement and appreciation of the languages, beliefs and values in other cultures, which then facilitates improved communication among providers, staff, patients and families. This communication is especially important in ethically complex situations, where sensitive matters such as sickness and health or death and dying may need to be discussed. The burden of these discussions on all parties involved is both a logistical and emotional one. As a result, people may have difficulty participating in the discussion if proper language and values are not outlined and utilized, which is especially difficult when there is a mixture of different cultures represented among participants. Unfortunately, training in skillful communication is rare, and directed training about communicating with specific cultures of people is even more rare. Accordingly, it is important to offer healthcare workers directed avenues for education and practice in these areas in order to fully develop cultural competency with the populations of patients served.

Commonly Used Hawaiian Words Pertinent in Ethical Discussions

<table>
<thead>
<tr>
<th>Hawaiian</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuleana</td>
<td>Responsibility</td>
</tr>
<tr>
<td>Pono</td>
<td>Righteous, proper, moral</td>
</tr>
<tr>
<td>Na’au</td>
<td>Morals</td>
</tr>
<tr>
<td>Kapu</td>
<td>Taboo, sacred</td>
</tr>
<tr>
<td>Ola</td>
<td>Well-being</td>
</tr>
<tr>
<td>Malama</td>
<td>To care for</td>
</tr>
<tr>
<td>Mana’o</td>
<td>Thought, opinion</td>
</tr>
<tr>
<td>Ohana</td>
<td>Family, loved ones</td>
</tr>
<tr>
<td>Ho’oponopono</td>
<td>“To make right” - a therapeutic approach to reconciliation among persons</td>
</tr>
</tbody>
</table>
2016 Hawaii Population Racial Composition of Residents

<table>
<thead>
<tr>
<th>Self-Reported Race (multiple responses allowed)</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>57</td>
</tr>
<tr>
<td>White</td>
<td>43</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islanders</td>
<td>27</td>
</tr>
<tr>
<td>Black or African American</td>
<td>4</td>
</tr>
<tr>
<td>American Indian and Alaska Natives</td>
<td>3</td>
</tr>
<tr>
<td>Mixed race</td>
<td>24</td>
</tr>
</tbody>
</table>

This research was funded by: n/a

Exciting Updates for Treating Older Age Patients in the Consultation-Liaison Setting
Adriana P. Hermida, MD; Ann Schwartz, MD; Oliver M. Glass, MD

Emory University, Atlanta, GA

Introduction: Older age frequently brings complex medical and psychiatric complications. From a psychiatric perspective, the “3 D’s” - late life depression, dementia and delirium often overlap with one another, yet each requires a unique treatment approach. With the rapidly growing average life expectancy, there is an increasing need for innovative research in geriatric psychiatry. Geriatric psychiatry has never been a more exciting field. This poster will highlight some of the most innovative and novel treatment modalities in the geriatric psychiatry consultation-liaison (CL) setting.

Methods: A concise review of literature review was performed of the following databases: PubMed, Medline, Embase and Cochrane. The search terms: “melatonin”; “suvorexant”; “thiamine”; “trazodone”; “ECT”; “cannabinoids”; “citalopram/escitalopram”; and “dextromethorphan/quinidine” were each individually added to “older age”, “geriatric”, “geriatric psychiatry”, “dementia”, “depression”, and “delirium”.

All fifty-four references articles relevant to the topic of this poster were collected. Our literature review placed emphasis on studies from 2010–2017.

Results: The “3 D’s” - dementia, delirium and late life depression, frequently overlap in geriatric psychiatry. Melatonin, suvorexant, thiamine supplementation, trazodone, ECT, cannabinoids, citalopram/escitalopram, have each shown promise in the treatment of older age patients in the CL setting.

Conclusions: Limitations of the listed treatment modalities exist. Though caution should be advised prior to the initiation of novel treatment modalities due to data limitations (e.g. short follow up, insufficient randomized controlled trials, confounding factors, frequent inadequate use of objective measurements), future studies should continue to build on these exciting advancements in geriatric psychiatry.

Clozapine Induced Parotitis in the Elderly—A Cause for Sialorrhea
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3Emory University, Atlanta, GA
4Medical University of Bialystok, Bialystok, Poland

Introduction: Clozapine is an atypical antipsychotic used to treat schizophrenia refractory to previous medication trials. An effective antipsychotic, its use may be limited by the potential side effect of agranulocytosis. A less severe, more common, and discomforting side effect of clozapine is sialorrhea or hypersalivation. Sialorrhea is a side effect noteworthy to practitioners as it may contribute to medication non-adherence. Concerningly, patients on clozapine do not undergo routine head and neck examinations with parotid gland inspection, leaving a potential cause for sialorrhea hidden. The purpose of this review is to
Methods: We searched PubMed, Medline, and Embase for relevant articles relating to clozapine induced parotitis. No time frame restriction was placed. Keywords that we used were: Clozapine parotitis; Clozapine parotid; Clozapineinduced parotitis; drug induced parotitis; 127 articles were listed in the databases. Eleven studies were found to be relevant to our topic. Eight studies were case reports, one was a case study, and one was a retrospective chart review. The total N (patients) was 16. We then performed a summary and review of the literature collected.

Results: A thorough medical workup is necessary in any patient presenting with parotitis. There appears to be an association between sialorrhea and clozapine induced parotitis. The parotitis induced by clozapine may occur unilaterally or bilaterally, it may be recurrent or occur under one occasion. Accelerated titration may cause the parotitis to occur in some patients. Some patients have a co-occurring eosinophilia. Some researchers believe that rather than eosinophilia being the culprit of clozapine induced parotitis, sensitized mononuclear cells may be responsible. Additional possible explanations for clozapine-induced parotitis may be sialorrhea causing the development of parotid lithiasis. One patient developed a significant drop in white blood cells following the episode of parotitis. Additionally, our review has noted that patients in late life, even when not prescribed clozapine, are vulnerable to root caries, temporomandibular joint disease, dental avulsion and periodontal disease.

Conclusions: Whether sialorrhea generally precedes or follows clozapine induced parotitis is still to be determined. Concerningly, patients on clozapine do not undergo routine head and neck examinations with parotid gland inspection, leaving a potential cause for sialorrhea hidden. There are currently no guidelines recommending routine parotid gland examinations in adult or older age patients on clozapine. It is likely that many psychiatry providers do not consider parotitis as the cause for sialorrhea in their patients, making this a neglected area of practice. Not only should patients who are taking clozapine be under regular psychiatric care, they should also have regular appointments with a dentist. Given the increased risk for oral health pathology in psychiatric patients and older age patients, collaborative care between dentistry and psychiatry is essential. Together, dentists and psychiatrists can contribute to improving health outcomes and medication adherence for an often marginalized patient population.

Introduction: Despite a large literature on the stress process associated with caregiving for persons with dementia (PWDs), little attention has focused on how caregivers actually manage and provide care and how this may impact care outcomes. Criticism is one form of management caregivers may use to respond to the stresses of care by releasing frustration. It may also stem from the incorrect belief that the symptoms of dementia are within the control of the PWD. Stemming from work on family members of individuals with schizophrenia, a literature on expressed emotion (involving criticism, hostility, and emotional over-involvement) applied to caregivers for PWDs has shown that expressed emotion may have little effect on the course of dementia, but may have more to do with outcomes for caregivers themselves (Li & Murray, 2015; Tarrier et al., 2002; Vitaliano, Young, Russo, Romano, & Magana-Amato, 1993). Indeed prior research has found that constructs such as criticism, anger, and lower encouragement towards the PWD specifically have been associated with caregiver burden, a desire to institutionalize the PWD, and less experienced caregiving gains (Bakker et al., 2013; Davis et al., 2014; de Vugt et al., 2004; Hinrichsen & Niederehe, 1994; Hong, Luo, & Yap, 2013; Lim, Griva, Goh, Chionh, & Yap, 2011). Additionally, recent work found that caregivers, for PWDs, reporting high levels of distress utilized more acute care services such as emergency department visits (Maust et al., 2017). If criticism is a reflection of frustration related to care or a strategy utilized due to a lack of other adaptive management styles, it may follow that a caregiver would seek more services to assist in care provision. Ultimately, caregiver management styles, such as criticism, may be modifiable and through intervention prevent increased caregiver distress and unnecessary service utilization. In the current study, we consider criticism as a care management style that may be associated with a caregiver’s mental health and service utilization.

Methods: Data are drawn from the baseline (pre-intervention) survey from the Advancing Caregiver Training (ACT) intervention study, a study designed to test a non-pharmacological approach for caregivers of PWDs to manage problem behaviors. The analytic sample included 256 informal caregivers living with an individual with diagnosed dementia or a Mini-Mental Status Examination score of less than 24, and who reported experiencing “upset” related to management of behavioral problems. Criticism was measured as a mean score on a four item subscale drawn from the Dementia Management Strategies
Till Death Do Us Part: The Impact of Caring for A Spouse with Dementia on Caregiver Mortality
Amanda Leggett, PhD1; Matthew Lohman2; Amanda Sonnega1

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2University of South Carolina, Columbia, SC

Introduction: As the number of older adults with dementia is increasing with the growing population of older adults, the need for informal caregivers has risen dramatically. Caregiving is associated with many rewards, and yet the negative impact of care on caregiver's mental health has been well-documented. However, since Schulz and Beach (1999)’s seminal study reported that caregivers who were experiencing caregiving strain had 63% higher mortality risks than same aged peers who were not caregivers, it is now recognized that for some, caregiving may be stressful, and as a result deadly. Since this foundational work, however, a number of studies have found that, in contrast, caregiving may reduce mortality risk (Brown et al., 2009; Caputo, Pavalko, & Hardy, 2016; Fredman, Lyons, Cauley, Hochberg, & Applebaum, 2015; Maguire, Rosato, & O’Reilly, 2016; O’Reilly, Rosato, Maguire, & Wright, 2015; Ramsay, Grundy, & Reilly, 2013). In other words, these findings are in line with the Healthy Caregiver hypothesis which suggests that healthy individuals enter the caregiving role and caregiving may maintain health. We expand on prior research by considering whether it is indeed the healthiest caregivers who experience a mortality benefit, and whether the protective effect is consistent for specific causes of mortality, particularly those related to the stress process (ex. cardiovascular disease).

Methods: Our nationally representative sample consisted of 17,816 adults aged 51 or older. Using fourteen years of data from the Health and Retirement study (2000–2014), Cox survival models were run in STATA predicting time to death for spousal caregivers of individuals with dementia with the time period starting from 2000 to the final available National Death Index data (2014). We first consider dementia caregiver status (having ever provided care for a spouse with dementia between 2000 and 2012) as a predictor of all-cause mortality controlling for caregiver demographics, smoking status, depressive symptoms, and self-rated health at baseline. Next we tested an interaction between caregiver status and self-rated health. Follow-up models consider dementia caregiver status as a predictor of leading causes of death mortality.

Results: Those who reported having ever served as a dementia caregiver for their spouse had a significantly lower hazard of all-cause mortality (HR = 0.64, CI = 0.60–0.69, p<0.001) relative to those who hadn’t served as a dementia caregiver. An interaction between caregiver status and self-rated health revealed that the protective effect of caregiving was strongest for caregivers with poor self-rated health (HR=0.66, CI=0.45–0.98, p<0.05). The primary causes of caregiver death included heart...
Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief

Stefana B. Morgan, MD\textsuperscript{1}; Joseph Zamaria\textsuperscript{1}; Helen Lavretsky, MD\textsuperscript{2}; Felipe A. Jain, MD\textsuperscript{1}

\textsuperscript{1}Department of Psychiatry, UCSF, San Francisco, CA
\textsuperscript{2}UCLA, Los Angeles, CA

Introduction: Family caregivers of dementia patients experience high rates of psychological symptoms including depression and grief. Due to caregiver burden, these symptoms often go neglected and there is a dearth of practical interventions that address caregiver needs. Neural circuits associated negative affect states such as caregiver grief, or increases in useful states such as mindfulness and self-compassion, have not been studied in caregivers. In this study, we tested whether a 4-week Mentalizing Imagery Therapy (MIT) intervention could be used to improve caregiver well-being, and whether changes in neural activity associated with clinical improvement could be identified. MIT utilizes guided imagery and mindfulness practices to improve emotion regulation and strengthen self- and other- mentalization.

Methods: In a pilot feasibility trial, 26 caregivers were assigned by convenience to receive MIT (N = 13) or were assigned to a wait list (N = 13) in which they received a progressive muscle relaxation CD while waiting for MIT. Linear mixed effects models were used to analyze measures of psychological well-being from before to after MIT, controlling for group assignment. Structured narrative interviews were obtained (N = 10) and scored by two independent raters using interpretative phenomenological analysis (IPA). During functional magnetic resonance imaging of a subset of subjects pre-to-post MIT (N = 7), caregivers viewed pictures of their loved ones with dementia and pictures of an age, race and gender matched stranger. Robust regression was used to predict changes in grief, mindfulness, and self-compassion from changes in neural activity when viewing the photo of the loved one versus that of a stranger longitudinally.

Results: Average age for participants was 59.8 (±10.3). Most participants were female (92.5%), Caucasian (73%) and highly educated (15.7 years of education). Caregivers receiving MIT evinced significant improvements in depression, aspects of caregiver grief (personal sacrifice and heartfelt sadness and longing), aspects of mindfulness (non-judgment and non-reactivity), caregiver burden, and quality of life. However, there were no improvements in anxiety, loneliness, or worry regarding the future. Qualitative analysis indicated that 73% of caregivers in the MIT group reported an increase in self-compassion, 64% reported improvement in mindfulness/reactivity and all reported an improvement in wellbeing. The improvements did not differ by group, indicating that there was little effect of first being assigned to wait list with PMR CD. This quote illustrates a patient’s experiences of improvement of mindfulness during the study – “I feel like it helped calm me down, definitely. I felt like I was very reactive to a lot of things in my life. It created the space I needed to calm down. It allows me to think through situations and allows me to react better, and make better decisions. It’s definitely been helping, and has been a very positive experience.” Another participant commented on her new understanding of self-compassion – “I was something I never did before—trying to comfort myself. I always comforted other people. You hear that a lot about putting yourself first and I’m not discounting it. Comforting myself was giving myself the same comfort and sympathy that I would give someone else that I love. That was kind of a revelation!”. Patients universally thought the intervention was useful in their lives – “I do think it has impacted my sense of wellbeing, it gave me a kind of rudder I think–I was floundering and it centered me.” At baseline when viewing the photo of their relative compared to that of a stranger, increased activity in the lingual gyrus correlated with higher disease (33%), cancer (24%), chronic lower respiratory disease (9%), and other causes (16%). Finally, caregiver status also showed a significant protective effect for heart disease, cancer, and cerebrovascular disease mortality.

Conclusions: Exploring the positive impact of caregiving on mortality, we found that for older adults in the poorest health, caregiving may make a positive difference. For example, caregiving may give spouses a reason to maintain their health so as to be able to provide the intensive care for their spouse that dementia requires. However, for those in good health, caregiving may do little to encourage or prevent healthy behaviors. Furthermore, accounting for competing risks, a similar protective effect of caregiving was found for three leading causes of mortality: cancer, heart disease, and cerebrovascular disease. Future work should attend to selection effects and reverse causation, however, to consider whether healthier individuals enter and stay in a caregiving role because those with poor health have already attrited from the population. In conclusion, these findings add to a growing body of literature which suggests that caregiving may provide a mortality benefit. We uniquely find that this protective effect spans causes of death and is strongest amongst those reporting poor health.

This research was funded by: Support for this work was provided by the Program for Positive Aging at the University of Michigan. HRS is funded by the National Institute on Aging (NIA U01AG0097) and housed at the University of Michigan (UM) Institute for Social Research.

Poster Number: EI 7

Mentalizing Imagery Therapy for Depressed Family Dementia Caregivers: Neural Mechanisms Underlying Changes in Mindfulness, Self-Compassion and Grief

Stefana B. Morgan, MD\textsuperscript{1}; Joseph Zamaria\textsuperscript{1}; Helen Lavretsky, MD\textsuperscript{2}; Felipe A. Jain, MD\textsuperscript{1}

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Methods: In a pilot feasibility trial, 26 caregivers were assigned by convenience to receive MIT (N = 13) or were assigned to a wait list (N = 13) in which they received a progressive muscle relaxation CD while waiting for MIT. Linear mixed effects models were used to analyze measures of psychological well-being from before to after MIT, controlling for group assignment. Structured narrative interviews were obtained (N = 10) and scored by two independent raters using interpretative phenomenological analysis (IPA). During functional magnetic resonance imaging of a subset of subjects pre-to-post MIT (N = 7), caregivers viewed pictures of their loved ones with dementia and pictures of an age, race and gender matched stranger. Robust regression was used to predict changes in grief, mindfulness, and self-compassion from changes in neural activity when viewing the photo of the loved one versus that of a stranger longitudinally.

Results: Average age for participants was 59.8 (±10.3). Most participants were female (92.5%), Caucasian (73%) and highly educated (15.7 years of education). Caregivers receiving MIT evinced significant improvements in depression, aspects of caregiver grief (personal sacrifice and heartfelt sadness and longing), aspects of mindfulness (non-judgment and non-reactivity), caregiver burden, and quality of life. However, there were no improvements in anxiety, loneliness, or worry regarding the future. Qualitative analysis indicated that 73% of caregivers in the MIT group reported an increase in self-compassion, 64% reported improvement in mindfulness/reactivity and all reported an improvement in wellbeing. The improvements did not differ by group, indicating that there was little effect of first being assigned to wait list with PMR CD. This quote illustrates a patient’s experiences of improvement of mindfulness during the study – “I feel like it helped calm me down, definitely. I felt like I was very reactive to a lot of things in my life. It created the space I needed to calm down. It allows me to think through situations and allows me to react better, and make better decisions. It’s definitely been helping, and has been a very positive experience.” Another participant commented on her new understanding of self-compassion – “I was something I never did before—trying to comfort myself. I always comforted other people. You hear that a lot about putting yourself first and I’m not discounting it. Comforting myself was giving myself the same comfort and sympathy that I would give someone else that I love. That was kind of a revelation!”. Patients universally thought the intervention was useful in their lives – “I do think it has impacted my sense of wellbeing, it gave me a kind of rudder I think–I was floundering and it centered me.” At baseline when viewing the photo of their relative compared to that of a stranger, increased activity in the lingual gyrus correlated with higher disease (33%), cancer (24%), chronic lower respiratory disease (9%), and other causes (16%). Finally, caregiver status also showed a significant protective effect for heart disease, cancer, and cerebrovascular disease mortality.

Conclusions: Exploring the positive impact of caregiving on mortality, we found that for older adults in the poorest health, caregiving may make a positive difference. For example, caregiving may give spouses a reason to maintain their health so as to be able to provide the intensive care for their spouse that dementia requires. However, for those in good health, caregiving may do little to encourage or prevent healthy behaviors. Furthermore, accounting for competing risks, a similar protective effect of caregiving was found for three leading causes of mortality: cancer, heart disease, and cerebrovascular disease. Future work should attend to selection effects and reverse causation, however, to consider whether healthier individuals enter and stay in a caregiving role because those with poor health have already attrited from the population. In conclusion, these findings add to a growing body of literature which suggests that caregiving may provide a mortality benefit. We uniquely find that this protective effect spans causes of death and is strongest amongst those reporting poor health.

This research was funded by: Support for this work was provided by the Program for Positive Aging at the University of Michigan. HRS is funded by the National Institute on Aging (NIA U01AG0097) and housed at the University of Michigan (UM) Institute for Social Research.
grief scores. Reductions in grief were associated with decreased activity in the lingual gyrus, and increased activity in the precuneus. Improvements in mindfulness were also associated with increases in vmPFC activity.

**Conclusions:** Our results suggest that MIT may improve several facets of caregiver well-being. Neural activity in visual association areas elicited by our paradigm may be a biomarker for grief in caregivers and its improvement with MIT, whereas relative increases in activity of regions of the default mode network (vmPFC) may underlie improvements in mindfulness as these correlate with both qualitative and quantitative findings. Limitations of our study include lack of a control group and thus inability to differentiate participating in MIT from receipt of therapeutic attention within our trial. Future research should address whether benefits observed in our trial are due to specific effects of MIT.

**This research was funded by:** Funding provided by Friends of Semel Institute, Morris A. Hazan Memorial Foundation, UCLA Ahmanson-Lovelace Brain Mapping Center, UCLA Clinical and Translational Research Institute, National Institutes of Health (National Institute on Aging) R21 #AG051970.

**Poster Number: EL 8**

**Understanding Culture and Diversity in Spiritual Care**

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**Introduction:** A growing literature demonstrates the advantage of assessing the contribution of culture and spirituality to individual health and well-being. Professional healthcare chaplains undergo extensive training and certification to learn to identify and address spiritual needs of patients coping with medical and psychiatric illness, such as cancer. As spiritual needs are deeply intertwined with culture and ethnic background, chaplains are uniquely positioned to understand this interaction by using cultural humility and contribute to the multidisciplinary team. Our team conducted a mixed methods study to describe and evaluate the impact of a well-articulated spiritual care model—called the Spiritual Assessment and Intervention Model (Spiritual AIM). Spiritual AIM proposes that one of three core spiritual needs rises to the forefront during a health crisis, such as cancer. These include the need to seek meaning and direction, the need to find self-worth and have a sense of belonging to community, and the need to love and be loved, often facilitated through seeking reconciliation when relationships are broken. The Spiritual AIM model has been described comprehensively elsewhere (Shields et al., Palliative and Supportive Care, 2014). Here, we present a case study of the use of Spiritual AIM—and in particular the influence of culture, ethnicity, and religion on the spiritual needs and care—in an older adult with advanced cancer.

**Methods:** The Spiritual AIM study recruited patients with advanced cancer (n=31) receiving both oncologic and palliative care. Participants had three audiorecorded individual sessions with a chaplain who used the Spiritual AIM model, as well as an exit interview. Using qualitative methods, we developed a codebook describing the use of Spiritual AIM. Quantitative analysis of pre-/post-Spiritual AIM psychological, spiritual, and physical measures was also conducted (Kestenbaum et al., Journal of Pain and Symptom Management, 2017). Using the concepts of cultural humility and Eriksonian stages, we used these codes to examine the transcripts of all three chaplain sessions and exit interview for one of the participants (an older Latino male), whose assessment and intervention captured the interplay of culture, ethnicity, and spirituality.

**Results:** Mr. B., a 71-year-old Latino, Catholic man, who was diagnosed with Stage IV colon cancer with several distant (non-brain) metastases. Using the Spiritual AIM taxonomy, the chaplain identified Mr. B.’s core spiritual need as the need to find meaning and direction. Specifically, Mr. B. was struggling with understanding and reconstructing his identity in the context of aging and cancer, similar to Erikson’s stage of ego integrity vs. despair. He is a “macho” Latino man, head of his household, physically strong, who came from humble upbringings and was very accomplished in his career. His advanced cancer was discovered after a traumatic shooting which left him with physical disability. “First getting shot, being in a coma, being hospitalized, all that trauma, and then at the end or sometime in that hospitalization, being told you have cancer. My life completely changed”. The patient struggled with telling his daughters about the gravity of his illness, making decisions about his care, letting his wife come to appointments, rejecting his Catholic faith and incorporating his illness into his identity. For example, “Prior to this, I was a gym rat. I was a marathon runner, I boxed.” “My perception that I now became a burden. Not perception. I do feel I now became a burden.” “I’m not whole anymore and I’m having a difficult time in accepting that I’m not whole anymore”. The chaplain’s interventions included reminding Mr. B. of his many strengths, providing blessings, providing a framework for him to relate to his own conceptuality of God outside of Catholicism and rejoicing in his achievements. Through this work, Mr. B. was able to find himself once again, return to the practices that used to nurture him such as exercise, communicate honestly with his family, grieve for himself and make decisions regarding his goals of care, death
and estate. “You’re letting yourself be real about where you are.” “I looked into assisted suicide and having myself cremated, and...” In his exit interview, he valued the experience with the chaplain “It was a two-edged sword. It was—oh, yeah, it was good and it was challenging, difficult, to go through what I think about myself.” “He pushed me quite a bit, which I thought was good, good in the sense that it had me rethinking about my ideas of life.” Notions of God—we got real deep into that, concepts of comfort, the notions of achievement.”

**Conclusions:** This case study demonstrates how chaplains might use Spiritual AIM to understand culture and spirituality in their formulation of patients, in order to provide comprehensive multidisciplinary clinical care for older patients.

**This research was funded by:** John Templeton Foundation and HealthCare Chaplaincy

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**Poster Number: EI 9**

**Personality Profiles are Associated with Psychological and Physical Symptoms in Older Oncology Patients Undergoing Chemotherapy**

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**Introduction:** Despite the consistent finding that older adults tend to cope better with cancer and its treatment than younger adults, minimal work has examined the interindividual heterogeneity of coping and psychological and physical symptoms within the older population (i.e., rather than compared to younger adults). We hypothesize that personality factors influence coping with cancer as well as the symptom experience. Our team recently identified, using latent profile analysis (LPA), three underlying (“latent”) personality profiles among a large sample \( n = 1248 \) of adults undergoing chemotherapy. Briefly, the class we termed the “Distressed” class (14.3%) scored highest on neuroticism, and lowest on extraversion, agreeableness, and conscientiousness; the “Resilient” class (31.9%) scored lowest on neuroticism and highest on extraversion, agreeableness, and conscientiousness; and the “Normative” class (53.8%) was intermediate on all dimensions except openness. In the present analysis, we specifically examined, among the subset of patients who were 65 or older, the association of these personality profiles with physical symptoms, as well as coping-related variables and resilience.

**Methods:** Among the older patients \( n = 280 \) in a larger study of symptoms in patients undergoing chemotherapy for breast, gastrointestinal, gynecological, or lung cancer, we examined differences among the latent personality classes in psychological symptoms (Center for Epidemiological Studies—Depression, Spielberger State Trait Anxiety Inventories); physical symptoms (Memorial Symptom Assessment Scale, General Sleep Disturbance Scale, Pittsburgh Sleep Quality Index, Attentional Function Index, Lee Fatigue Scale); coping (Brief COPE, Mental Adjustment to Cancer scale); perceived stress (Perceived Stress Scale); and resilience (Connor-Davidson Resilience Scale). Differences among the latent personality classes were examined using ANOVAs.

**Results:** The classes differed significantly (Distressed > Normative > Resilient) in levels of depressive and anxiety symptoms, perceived stress, cancer-related symptoms, sleep disturbance, and fatigue. In terms of coping, the classes also differed in levels of both engagement coping (i.e., active coping, positive reframing, and acceptance; Distressed < Normative < Resilient) as well as disengagement coping (avoidance, denial, behavioral disengagement, self-blame; Distressed > Normative > Resilient). The classes differed significantly in terms of resilience (Distressed < Normative < Resilient).

**Conclusions:** Personality profiles, identified using latent profile analysis, were associated with psychological as well as physical symptoms in older cancer patients. Moreover, personality profiles were associated with a number of different dimensions of coping and resilience. Conceptually, a model whereby the effect of personality on psychological and physical symptoms is mediated by coping could explain these relationships. Therefore, further work is needed to identify the relationships among these constructs. While we studied these relationships in older patients undergoing chemotherapy for cancer, this conceptual model has the potential for broader generalizability to older adults’ coping with numerous medical conditions.

**This research was funded by:** National Institutes of Health (NINR/NCI R01 CA134900)

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**Poster Number: EI 10**

**Mental Illness Exacerbates Mobility Dysfunction among Older Male Veterans**

Anjana Muralidharan, PhD¹;²; Odessa Addison, DPT, PhD³; Steven J. Prior, PhD³;⁵; Monica Serra⁶;⁷; Jamie Giffuni³; Lydia Paden³; Leslie Katzel³;⁵

**Am J Geriatr Psychiatry 26:3, Supplement 1**
Introduction: Mobility function is a robust predictor of incident disability and mortality among older adults. Medical illness burden negatively affects mobility function, and there is emerging evidence that mental illness is associated with decrements in gait speed, balance, and lower extremity function in middle-aged and older adults. Furthermore, depressive symptoms contribute to worse mobility function among older adults. The present study examined whether mental illness comorbidity was associated with mobility function, beyond the contributions of medical illness burden, in a sample of older male Veterans participating in an outpatient exercise program.

Methods: Participants (n=185) were older male Veterans (ages 65 and up) enrolled in an outpatient exercise program. Mental health and medical diagnoses were extracted via chart review. The Charlson Comorbidity Index (CCI) was used to quantify medical illness burden. Mental illness was coded as present or absent; diagnoses screened for included major depressive disorder, bipolar disorders, schizophrenia spectrum disorders, anxiety disorders, post-traumatic stress disorder, and personality disorders. Prior to participation in the program, all Veterans underwent a physical assessment including assessments of height/weight, gait speed (GS), lower extremity function (30 second chair stands; CS), endurance (six-minute walk; 6MW), balance (four-square step test; FSST), and overall mobility function (Short Physical Performance Battery; SPPB). Multiple linear regression models examined predictors of the following outcomes: GS, CS, 6MW, FSST, and SPPB. Controlling for age, body mass index (BMI), and CCI, mental illness was examined as a predictor of each mobility outcome.

Results: Participants were majority African-American (69.2%); 17.3% had a mental illness diagnosis. Mental illness diagnoses present in the sample included: major depressive disorder (n=23), post-traumatic stress disorder (n=18), other anxiety disorders (n=4), schizophrenia (n=2), and bipolar disorder (n=1). Individuals with mental illness were on the following types of psychotropic medications: antidepressants (n=27), mood stabilizers (n=5), anxiolytic/hypnotics (n=5), and antipsychotics (n=5). Approximately a third of individuals with mental illness had a current (n=3) or past (n=10) substance abuse disorder. Other demographic and clinical descriptors were as follows: age = 71.1 ± 7.0 years; BMI = 32.2 ± 6.2; CCI = 2.4 ± 1.0. Overall, the sample was mobility impaired and/or at risk for future declines in mobility function (GS = 1.0 ± 0.3 m/sec; CS = 11.0 ± 4.8; 6MW = 433.8 ± 155.2 yards; FSST = 14.8 ± 9.5 sec; SPPB = 9.7 ± 2.5). Regression models accounted for significant total variance in all outcomes: GS (R^2 = .140, p < .0001), CS (R^2 = .068, p = .012), 6MW (R^2 = .189, p < .0001), FSST (R^2 = .123, p < .0001), and SPPB (R^2 = .158, p < .0001). There was a trend for increased variance accounted for by mental illness comorbidity for GS (R^2 change = .015, t = 1.770, p = .078) and CS (R^2 change = .019, t = 1.980, p = .055). The addition of mental illness comorbidity significantly increased variance accounted for, for 6MW (R^2 change = .022, t = 2.209, p = .028) and SPPB (R^2 change = .045, t = 3.100, p = .002). Mental illness comorbidity did not significantly contribute to FSST score (R^2 change < .0001, t = 1.13, p = .910).

Conclusions: Mental illness comorbidity may contribute to poorer mobility function, including gait speed and lower extremity function, among older adults, beyond a correlation with increased medical illness burden. Future studies should examine the potential role of lifestyle factors such as sedentariness, or treatment factors such as psychotropic medications, in contributing to this risk. Given that mobility and lower extremity function are robust predictors of incident disability and mortality among older adults, these may be particularly important targets for intervention among older adults with mental illness.

2018 AAGP Annual Meeting

Age Moderates Gender Differences in Negative Symptoms among Middle-Aged and Older Adults with Schizophrenia

Anjana Muralidharan, PhD1,2; Philip S. Harvey, PhD3,4

Introduction: Gender differences in schizophrenia have been well-documented. Women with schizophrenia tend to have less severe negative symptoms, less severe cognitive impairment, and better social skills than their male counterparts (Ochoa et al.,...
2012). It has been hypothesized that circulating estrogens may modify symptom expression among women with schizophrenia, resulting in these gender differences. If this is the case, then gender differences in schizophrenia should attenuate with age, as women experience menopause. Few studies have examined gender differences in middle-aged and older adults with schizophrenia; none have examined the moderating impact of age. One study which examined cognition, negative symptoms, and social skills performance in middle-aged and older adults with schizophrenia found no gender differences (Mueser et al., 2010). The present study examined gender differences in negative symptoms, global cognition, and social skills in a sample of middle-aged and older adults with schizophrenia, and also examined whether age moderated gender differences.

**Methods:** Participants were community-dwelling adults with schizophrenia, recruited through academic, state, and VA outpatient treatment programs. Inclusion criteria were: a primary DSM-IV diagnosis of schizophrenia or schizoaffective disorder as assessed by structured clinical interview, and evidence of current active illness at baseline assessment (i.e., inpatient hospitalization or emergency room visit for psychosis within the last two years or at least moderate current levels of positive symptoms). Exclusion criteria were: the presence of medical illnesses that could impact cognitive functioning, and a Mini-Mental Status Examination (MMSE; Folstein et al., 1975) score below 18.

Participants (N=242; 178 males and 64 females; ages 40–85; mean age = 56.1 +/- 9.1; 29.3% African-American and 52.9% White) completed assessments of symptoms, neurocognition, and social skills. Measures included (1) the Positive and Negative Syndrome Scale (PANSS), an interview-based measure of positive and negative symptoms, (2) a comprehensive neuropsychological battery including assessment of attention and concentration, executive functioning, verbal learning, memory, and fluency, which was used to create a cognitive composite Z-score representing global cognitive functioning, and (3) the Social Skills Performance Assessment (SSPA), a performance-based measure involving a series of role plays performed between the participant and interviewer, in which the mean score represents a global estimate of social skill level for each participant. Mann-Whitney U tests compared males and females on negative symptoms (PANSS-Neg), cognitive composite score (Cog-Comp), and social skill level (SSPA-Mean). PROCESS moderation (Hayes, 2013) was used to examine age as a moderator of gender differences on these three outcomes.

**Results:** On average, participants exhibited significant cognitive impairment (Cog-Comp mean = −1.48 +/- 0.99), moderate negative symptom severity, and mild to moderate impairment in social skills performance. Cog-Comp was significantly higher in the female group (p=.011); there were no significant gender differences for PANSS-Neg or SSPA-Mean in the whole sample. Moderator analyses revealed a significant age by gender interaction for PANSS-Neg (b=-1.745; 95% CI [-.3426, -.0060]; t=-2.0407; p=.0424). To probe this interaction, Mann-Whitney U tests examined gender differences on PANSS-Neg separately in participants above and below 55. Among participants below 55, there were no gender differences on negative symptoms (p=.868). Among participants 55 and above, female participants had significantly lower negative symptoms than male participants (p=.029). Age was not a significant moderator in any other analyses.

**Conclusions:** In a sample of community-dwelling middle-aged and older adults with schizophrenia, female participants exhibited better cognitive functioning, but similar social skills performance, when compared to their male counterparts. A significant gender difference in negative symptoms was only present among older adults in the sample, with older women exhibiting less severe negative symptoms than older men. These findings are only partially consistent with previous studies (Mueser et al., 2010) and provide mixed evidence for the role of estrogen in gender differences in schizophrenia. Longitudinal evidence is needed to further investigate whether women with schizophrenia experience a decrease in negative symptoms in older age. The course of gender differences in symptoms and functioning in later life among individuals with schizophrenia requires further study.

This research was funded by: This research was funded by NIMH grant MH 63116 to Dr. Harvey and by the U.S. Department of Veterans Affairs VISN 3 MIRECC.

Poster Number: EI 12

**Adherence and Psychiatric Symptoms in Older Non-Adherent Adults with Bipolar Disorder: Baseline Analysis of Randomized Controlled Trial Data**

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**Introduction:** Younger age has been reported to be a risk factor for medication non-adherence in individuals with bipolar disorder (BD) in multiple studies. Existing literature on comparison of BD psychiatric symptom severity in older vs younger patients is inconsistent. In this post-hoc analysis of baseline data from medication non-adherent bipolar disorder subjects, we compared medication adherence and psychiatric symptoms in older (age 55 and above) and younger (less than 55) adults.
Methods: This analysis is based on baseline data from a NIMH-funded RCT testing a novel customized adherence enhancement intervention intended to promote BD medication adherence against an educational control in poorly-adherent individuals with BD (1R01MH093321-01A1; Principal Investigator MS). Study inclusion criteria included having bipolar I disorder (BD-I) or bipolar II disorder (BD-II) – confirmed by the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-IV) – for at least two years duration, treatment with at least one evidence-based medication to stabilize mood for at least six months, and ≥20% non-adherence with prescribed BD medication treatment (i.e., lithium, anticonvulsant, or antipsychotic mood stabilizer).

Adherence was measured with the Tablets Routine Questionnaire (TRQ). The TRQ is a self-report measure which identifies the proportion of days with missed medication in the past seven and past 30 days. Lower scores represent better adherence, while higher scores represent worse adherence. The TRQ has demonstrated a statistically significant association with adherence in the past month and in the past week, and has been shown to correlate highly with lithium levels. In this RCT, past week and past month TRQ were assessed for each evidence-based BD maintenance medication (lithium, anticonvulsant, antipsychotic) prescribed for ≥3 months. For individuals who were on more than one medication, an average TRQ was calculated.

Psychiatric symptoms were measured using a variety of tools: Montgomery–Åsberg Depression Rating Scale (MADRS), the Young Mania Rating Scale (YMRS), and the Brief Psychiatric Rating Scale (BPRS). Subjects were also rated with Clinical Global Impression, Bipolar Version (CGI-BP) and Global Assessment of Functioning (GAF). This analysis used baseline (demographic, TRQ, and clinical information) data from 184 RCT enrollments. Subjects aged 55 or above were compared to subjects below the age of 55 with regard to their psychiatric history, medical adherence and psychiatric symptomatology (t-tests).

Results: 21.7% (40/184) of subjects in our sample were age 55 year or above. A statistically significant difference was noted in the age of onset, with older adults having a mean age of onset of 33 years, and younger subjects a mean age of onset of 21 years. This is consistent with existing literature that the age of onset for older adults with bipolar disorder is substantially later than that of younger individuals. There were no significant differences in the prevalence of bipolar subtypes, number of psychiatric medications, or number of psychiatric hospitalizations.

No statistically significant differences were noted in past week and past month adherence with bipolar disorder medications between the two groups, although older adults had lower raw TRQ scores (past week TRQ: 37.2 vs 43.0; past month TRQ: 38.5 vs 40.8). Our comparison of medication adherence differs from prior studies in that we are looking at degree of adherence (or non-adherence) in subjects already recognized as non-adherent, whereas previous studies have typically looked at categorical comparisons of adherence vs non-adherence in older subjects.

Older adults had significantly lower anxiety disorder comorbidity compared to younger subjects, both in terms of subjects with one or more anxiety disorders (56.4% vs 78.4%) and two or more anxiety disorders (41.0% vs 57.5%). The finding of less anxiety comorbidity in older BD subjects is also consistent with prior literature, although our prevalence rate of 56.4% of one or more anxiety disorders in non-adherent older BD subjects is higher than what has previously been reported in the geriatric BD population.

Older adults had significantly lower MADRS scores (14.9 vs 18.9, p=0.011) and significantly lower CGI-BP (3.08 vs 3.47, p=0.025) indicating comparatively lower depressive and overall symptom severity. There were no significant differences in YMRS, BPRS, GAF scores between the two groups at baseline.

Comparisons are summarized in Table 1.

Conclusions: This baseline cross-sectional analysis of poorly-adherent BD patients suggests that older adults (age 55 and above) have a later age of onset, less anxiety comorbidity and lower depressive symptom severity, yet similar BD medication adherence compared to younger BD patients.

This research was funded by: Research reported in this abstract was supported by the National Institute of Mental Health of the National Institutes of Health under Award Number R01MH093321. Support was also received from the Clinical and

<table>
<thead>
<tr>
<th>Variable</th>
<th>Older Participants Mean (SD) or N (%)</th>
<th>Younger Participants Mean (SD) or N (%)</th>
<th>p-value</th>
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<tbody>
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<td>One or more anxiety disorders</td>
<td>39 22 (56.4%)</td>
<td>139 109 (78.4%)</td>
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<tr>
<td>Two or more anxiety disorders</td>
<td>39 16 (41.0%)</td>
<td>139 80 (57.5%)</td>
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<td>MADRS</td>
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<tr>
<td>CGI-BP</td>
<td>40 3.08 (1.07)</td>
<td>144 3.47 (0.96)</td>
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Continuation Treatment of Remitted Psychotic Depression: The STOP-PD Study
Kathleen Bingham, MD; Barnett S. Meyers, MD; Anthony J. Rothschild, MD; Benoit H. Mulsant, MD; Ellen M. Whyte, MD; Sampriit Banerjee, PhD; Amanda S. Artis; George S. Alexopoulos, MD; Alastair J. Flint, MD

Introduction: Psychotic depression (PD) is a severe disorder with high levels of morbidity and mortality. It is particularly relevant to the geriatric population, occurring in up to 45% of depressed elderly inpatients. Treatment guidelines recommend either electroconvulsive therapy (ECT) or the combination of antidepressant and antipsychotic medications as acute treatment. There are, however, few data pertaining to the efficacy and tolerability of continuation treatment of PD. Some naturalistic studies report a high frequency of relapse of PD, which may be partly explained by switching from acute ECT to continuation pharmacotherapy; in prospective open-label studies, when PD patients are continued on the treatment that is associated with remission the rate of relapse is lower. Given the paucity of research in this area, we conducted a 12-week double-blind study of continuation pharmacotherapy in persons who had experienced remission of PD in a double-blind RCT comparing the efficacy and tolerability of olanzapine plus sertraline (combination therapy) with olanzapine plus placebo (monotherapy) in adults aged 18 years and older (the STOP-PD study). The specific aims of this continuation study were to examine whether combination therapy and monotherapy differed in: i) stability of remission of depressive and psychotic symptoms; ii) frequency of relapse; and iii) course of weight, serum lipids, and serum glucose. Given the predominantly older age of participants, we examined whether there was an interaction between age, treatment, and outcome.

Methods: STOP-PD participants who achieved remission in the acute phase (n=27 aged 18–59 years and n= 44 aged ≥60 years) had assessments at continuation baseline and at weeks 4, 8, and 12 or early termination. PD symptoms and weight were measured at each visit. Total and LDL cholesterol, triglycerides, and glucose were measured at continuation baseline and week 12/termination. Using linear mixed effects models with time by treatment group interactions, we examined the relationship between treatment group and depression symptom stability over time, as measured by the Hamilton Depression Rating Scale (Ham-D). The difference in delusion scores between treatment groups (measured using the Schedule for Affective Disorders and Schizophrenia [SADS] delusion item) was analyzed with Fisher’s exact test. Fisher’s exact test analyzed the frequency of relapse in treatment groups. We examined the relationship between treatment group and change in weight and metabolic indices using linear mixed effects models with time and treatment group interactions. In order to evaluate a possible age group effect, we entered an interaction with time, treatment group and age group (aged 18–59 years versus aged ≥60 years) had assessments at continuation baseline and at weeks 4, 8, and 12 or early termination. PD symptoms and weight were measured at each visit. Total and LDL cholesterol, triglycerides, and glucose were measured at continuation baseline and week 12/termination. Using linear mixed effects models with time by treatment group interactions, we examined the relationship between treatment group and depression symptom stability over time, as measured by the Hamilton Depression Rating Scale (Ham-D). The difference in delusion scores between treatment groups (measured using the Schedule for Affective Disorders and Schizophrenia [SADS] delusion item) was analyzed with Fisher’s exact test. Fisher’s exact test analyzed the frequency of relapse in treatment groups. We examined the relationship between treatment group and change in weight and metabolic indices using linear mixed effects models with time and treatment group interactions. In order to evaluate a possible age group effect, we entered an interaction with time, treatment group and age group (aged 18–59 years versus aged ≥60 years) into the mixed effects models for Ham-D score and weight and metabolic values.

Results: There was no significant difference in Ham-D scores over time between treatment groups, nor was there a time by treatment by age interaction. Only five of 71 participants experienced deterioration in SADS delusion score, with no significant difference between treatment groups. Eight of the 71 participants (11.27%: 95% CI: 5.82, 20.69) met criteria for relapse, with no significant difference between treatment groups. Mean weight increased by approximately 3 lbs. over the 12-week continuation phase for the group as a whole. There was no significant association of treatment group with weight change, and there was no interaction of treatment group, age group and time. None of the metabolic indices differed over time between treatment groups. However, the interaction of time, treatment group, and age group was significantly associated with change in total cholesterol (F1,47 = 5.06, p < 0.03) and LDL (F1,36 = 11.96, p < 0.001). In the older olanzapine monotherapy group, total cholesterol decreased over time (t47 = -2.83, p < 0.007). LDL levels decreased over time in both the younger combination therapy group (t56 = -2.12, p = 0.04) and the older monotherapy group (t56 = -2.14, p < 0.04).

Conclusions: This study is the first to assess the stability of PD remission and the course of weight and metabolic variables under double-blind conditions in persons with remitted PD. Despite the superiority of combination therapy in the acute phase of the RCT, treatment group did not influence relapse frequency or symptom stability in the continuation phase, consistent with the thesis in the treatment of depression that “what gets you well, keeps you well”. There was no age effect for stability of
remission, weight, or serum glucose or triglycerides. However, there was an age effect for total and LDL cholesterol which will be discussed.

Poster Number: EI 14

**A Pilot Study: The Impact of Transdermal Nicotine on Late Life Depression**

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**Introduction:** Late Life Depression (LLD) is characterized by a poor response to currently available antidepressants, with greater than 50% failing to respond to initial treatments. LLD is further characterized by poorer cognitive performance across multiple domains than age-matched peers. Nicotine plays a widespread neuromodulatory role in the brain through agonism of nicotinic acetylcholine receptors, affecting serotonergic and noradrenergic systems. Pre-clinical and clinical trials have suggested that nicotine may improve mood in depressed mid-life adults, while separate studies suggest it may improve cognitive performance in pre-Alzheimer’s Disease populations. Given this past work, we conducted a pilot trial to determine whether transdermal nicotine might benefit mood and subjective cognitive performance in LLD.

**Methods:** In a 12-week open-label study, transdermal nicotine was given to 15 older adults (14 completers). Participants met: a) DSM-5 criteria for Major Depressive Disorder, defined as a ≥ 15 score on the Montgomery-Asberg Depression Rating scale (MADRS); and b) Subjective Cognitive Impairment, defined as endorsing greater than 20% on the Cognitive Complaint Index. Participants were seen every three weeks with dose titration dependent on individual tolerability. Transdermal nicotine patches were applied daily and titrated to a maximum dose of 21.0 mg/day. The primary mood outcome was MADRS measured every 3 weeks. The primary subjective cognitive performance outcome was Memory Frequency Questionnaire (MFQ) measured at week 0 and week 12, with a secondary outcome being the PROMIS Applied Cognition—Abilities questionnaire (8-item short form) measured every 3 weeks. Values measured every 3 weeks were trended over time using a linear mixed effects model and values at week 0 and week 12 were compared using paired t-test analysis.

**Results:** The mean decrease in MADRS from baseline to week 12 was 18.29 (SD = 6.15), with a statistically significant decrease over time (linear mixed effects model, slope = -1.51, p < 0.001). MADRS differed from baseline as early as week 3 (Bonferroni-adjusted p-value = 0.0036). Using a last-observation carried forward approach, 13 of 15 participants were responders (≥250% MADRS decrease) and 8 of 15 participants were remitters (final MADRS ≤ 7). Mean MFQ increased from baseline to week 12 by 23.64 (SD = 40.96, paired t-test, t = 2.16, p = 0.0500). PROMIS increased from baseline to week 12 by 6.15 (SD = 7.79) with participants exhibiting significant increases over time (slope = 0.47, p = 0.002). Changes in MADRS, MFQ, and PROMIS were highly correlated (|PCC| = 0.63–0.75, p = 0.0200-0.0020). The most commonly reported side effects were nausea (n = 7), dizziness (n = 4), and headache (n = 4), with 1 of 15 participants discontinuing due to tolerability. Participants also exhibited a mean weight decrease of 6.7 pounds (p = 0.0007).

**Conclusions:** Nicotine may be a promising therapy for depressed mood and cognitive performance in LLD. It may also have a more rapid onset of action, as many currently used antidepressants can require 4–6 weeks for clinical effect. However, because this is an open-label pilot study, a definitive placebo-controlled trial is necessary before nicotine’s clinical usage for LLD.

This research was funded by: NIH grant K24 MH110598 and CTSA award UL1TR000445 from the National Center for Advancing Translational Sciences

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**Poster Number: EI 15**

**The Clinical Phenotypes of Anhedonia in Late Life Depression**

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Introduction: Anhedonia is a key depression symptom but there is significant heterogeneity in its severity across individuals with Major Depressive Disorder. Anhedonia likely reflects altered functioning of key brain circuits involved in the reward process but it is unclear whether increased anhedonia is associated with distinct clinical and cognitive symptoms. The purpose of this study is to examine demographic, clinical and cognitive characteristics associated with increased levels of anhedonia in older depressed adults.

Methods: We examined 65 currently depressed older adults aged 60 years or older. Participants completed a standardized diagnostic interview and clinical assessments, including self-report of depressive symptoms. These assessments included the Snaith-Hamilton Pleasure Scale (SHAPS) to quantify severity of anhedonia. Participants additionally completed a neuropsychological battery, including tests focused on processing speed and executive function. We examined participant characteristics associated with SHAPS score in a staged approach, first examining demographics, then clinical measures, followed by cognitive profile. Analyses controlled for overall depression severity using a modified MADRS score with the anhedonia item removed. In secondary analyses, we dichotomized sample into those with high or low SHAPS scores determined by a median split and re-analyzed the clinical and cognitive variables.

Results: Total SHAPS score was not associated with demographic variables, but did exhibit a positive association with modified MADRS score (Pearson correlation coefficient r = 0.32, p = 0.0094). After controlling for modified MADRS score, SHAPS score was not associated with clinical measures of perceived stress, apathy, rumination, fatigue, worry, or insomnia. However, after controlling for age and medical morbidity, it was positively associated with disability (F = 5.03, p = 0.0334). After controlling for modified MADRS, age, and education, higher SHAPS scores were also positively associated with better performance on the Stroop test measures of processing speed (color naming; F = 9.51, p = 0.0034) and executive functioning (color-word interference; F = 9.43, p = 0.0035). When we dichotomized the sample into high and low anhedonia groups based on the median, we replicated the above findings. We additionally observed that the high anhedonia sample was younger (t = 2.76, p = 0.0083) with an earlier age of initial onset of depression (t = 2.18, p = 0.0332).

Conclusions: Greater anhedonia is associated with greater overall depression severity and with greater disability. However, it is also associated with better processing speed and executive function performance as measured by the Stroop test. This apparent discrepancy may be explained by analyses of high versus low anhedonic subjects, where individuals with higher anhedonia were more likely to be younger patients and report an earlier age of first episode. We propose greater anhedonia occurs in younger, earlier onset depressed elders with perhaps a greater lifetime duration of depression or higher number of recurrent depressive episodes. This may contribute to the greater reported disability, but their age may be related to the superior cognitive test performance.

This research was funded by: This work was supported by National Institute of Mental Health (grant numbers R01 MH102246 and K24 MH110598), and by CTSA award UL1TR000445 from the National Center for Advancing Translational Sciences.

Poster Number: EI 16

Exploring Ketamine Use in Geriatric Patients Suffering From Treatment-Resistant Depression
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Introduction: Ketamine is a glutamate NMDA receptor antagonist and is commonly used as an anesthetic. Low-dose subanesthetic intravenous ketamine is fairly new and an increasingly popular treatment for treatment-resistant depression (TRD) in the adult population; however, there is a scarcity of evidence of ketamine’s use among geriatric patients. Previously, psychotropics and electroconvulsive therapy (ECT) have been used in the geriatric TRD population. Ketamine provides a possible new treatment modality for those patients concerned with ECT-induced cognitive effects and may also allow for use in patients with significant cardiovascular co-morbidities, who would likely not quality for ECT.

Methods: We provide a literature review on the use of ketamine for TRD in the geriatric population.

Results: Studies and case series have shown the use of ketamine as a monotherapy and augmented therapy with electroconvulsive therapy in the adult and geriatric population. Literature supports efficacy with monotherapy and questionable benefit from augmentative therapy. Dosing ranges from 0.2 mg/kg to 0.5 mg/kg, with evidence showing remittance with ketamine dosing less than 0.5 mg/kg. Some studies have shown cognitive protection as compared to other TRD treatment modalities, while the majority of studies have not thoroughly analyzed systemic adverse risk profiles including cognitive and cardiovascular effects.
**Conclusions:** There is evidence in the literature for the use of intravenous ketamine in the TRD geriatric population. Larger randomized control trials are needed to provide guidance regarding dosing, cognitive and systemic effects, and treatment response.

This research was funded by: No funding received.

Poster Number: EI 17

**Amyotrophic Lateral Sclerosis and Late Life Depression**

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**Introduction:** Amyotrophic lateral sclerosis (ALS), commonly known as Lou Gehrig’s disease, is a progressive, idiopathic, and chronic neurodegenerative disease. Upper and lower motor neurons responsible for voluntary muscle control are typically affected. This neural degeneration causes spastic paralysis and muscle dystrophy which results in disability and ultimately death, typically within 2–5 years after diagnosis. The national prevalence of ALS in 2011 was 3.9 per 100,000. White males, non-Hispanics and those between the ages of 60–69 years are the most frequently affected populations. ALS is a progressive disease associated with multiple complications including respiratory insufficiency, salivation, pseudobulbar affect, sleep disruption, spasticity, fatigue, laryngospasm, autonomic symptoms, pain, and depression. Depression is a common neuropsychiatric complication of ALS. Estimated prevalences range from 6% for severe depression and 16.2–29% for mild depression. Depression may be difficult to diagnose and treat given confounding factors related to the progressive nature of the primary disease. For example, mood symptoms may be difficult to separate from disease-specific physical symptoms such as fatigue and weakness. Additionally, given the progressive nature of ALS, ongoing decline in physical functioning may make mood symptoms refractory to treatment. Several new disease-specific rating scales, including the ALS Depression-Inventory, exist to aid clinicians with appropriate diagnosis and help guide treatment.

**Methods:** We present a case of an elderly man diagnosed with ALS who subsequently developed depressive symptoms in the context of his neurodegenerative disease and transition to a nursing home after experiencing a fall at home rendering him unable to independently care for himself.

**Results:** As with many ALS patients, his physical decline and debilitation contributed significantly to the development of depressive symptoms. He also had difficulty accepting his need for a higher level of care.

**Conclusions:** Our patient ultimately experienced remittance of his depressive symptoms after treatment with an SSRI. In addition to highlighting pertinent aspects of this case, our poster will present a literature review discussing the evaluation, diagnosis, and treatment of patients with ALS and co-morbid major depressive disorder.

This research was funded by: None

Poster Number: EI 18

**Functional Activation during Emotion Processing in Late-Life Depression: Early Markers of Treatment Response**

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**Introduction:** Treatment of major depression (MDD) often requires multiple trials of medications before an effective therapy can be identified, this poses a serious issue as it is associated with an increased risk of suicide and can contribute to worsening co-morbidities. In late-life depression (LLD), as the time required to respond to a single medication is on average longer (6 weeks compared to 4) – these risks may be worsened. Several studies have shown changes in functional activation/connectivity following acute doses as measured by functional magnetic resonance imaging (fMRI). In this study, we aimed to investigate early changes in functional brain activation (during emotion reactivity) that occur during a treatment trial.

**Methods:** Late-life LLD patients (N=52) were enrolled into a 12-week Venlafaxine treatment trial where an fMRI scan was collected at baseline, 12 hours following a placebo, 12 hours following their first dose, a week after beginning treatment, and at...
Association of Subjective Cognitive Complaints and Objective Cognitive Impairment in Late Life Depression

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Introduction: Major depressive disorder in the elderly (late life depression; LLD) is a disabling psychiatric condition affecting an estimated 8–16% of the older adult population, with a significant impact on public health. The presence of depressive symptoms has also been consistently implicated as a risk factor for dementia due to co-occurrence of cognitive impairments in individuals with LLD and increased rates of conversion to dementia. Recent studies also demonstrate that individuals with LLD report greater concern about their cognitive status relative to older adults without depressive symptoms. However, the degree to which subjective cognitive complaints may be a useful marker of cognitive dysfunction in LLD is not yet clear. In studies of aging, the extant literature suggests that depressive symptom severity is more strongly linked to subjective cognitive complaints than objective measures of cognition. However, few studies have evaluated this relationship among individuals with LLD, and findings have been restricted by small sample sizes and limited neuropsychological assessments. This study was conducted to clarify these associations in a large sample of clinically depressed older adults undergoing extensive, clinician-administered neuropsychiatric and cognitive assessments. We hypothesized that depression severity, but not cognitive impairment, will be associated with subjective cognitive complaints in this sample.

Methods: Baseline data were analyzed from 121 participants without dementia (> 25 on the Mini Mental Status Exam) in a study of cognition and neuroimaging in late-life depression. Diagnosis of depression was made based on consensus diagnoses...
The Personality of Older Attempters: A Key to Heterogeneity in Suicidal Behavior

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Introduction: Certain personality profiles such as characterized by borderline traits, high neuroticism, or low extraversion have been associated with an increased risk of suicidal behavior in young and middle-aged adults. In the elderly, however, decreased borderline traits and increased emotional stability have been found, despite being the highest suicide rate demographic. This calls into question whether the same personality characteristics typify suicidal behavior in older adults as well. Moreover, suicidal behavior is heterogeneous in nature; attempts range from non-medically serious to near-fatal, some attempters make numerous attempts while others only make one, and some individuals have their first attempt at a young age while others do not attempt until much later in life. It is possible that these differing patterns of attempts imply different vulnerability factors in the elderly. Using a case-control design, we investigated these questions by comparing the dimensional and categorical personality profiles of elderly suicide attempters and ideators to depressed non-suicidal and healthy controls.

Methods: Our sample was composed of 193 adults over the age of 50 (mean 63.7) participating in the Longitudinal Research Program for Late-Life Suicide at the University of Pittsburgh. Sixty-two were suicide attempters, 42 were suicidal ideators with no lifetime history of attempt, 44 were depressed controls with no lifetime history of attempt or ideation, and 45 were non-psychiatric healthy controls. Attempters were further characterized as low- or high-lethality based on their maximum lethality score on the Beck Lethality Scale (less or equal to 3 versus higher); multiple or single depending on whether they made more than 1 attempt during their lifetime; and as early- or late-onser based on whether their first attempt took place before or after age 50.

Personality was assessed via 2 complementary measures: the Five-Factor Model, evaluated by NEO-FFI self-reports, and DSM-IV personality constructs, evaluated on the trait level by semi-structured SIDP-IV interviews. The 5 domains of the Five-Factor
Model were assessed in the whole sample, whereas 6 pathological (DSM) personality constructs, namely schizotypal, antisocial, borderline, narcissistic, avoidant and obsessive-compulsive, were assessed in a subsample of 139 participants (mean age 62.5). Given the zero-inflated distribution of DSM personality traits, groups were compared through Kruskal-Wallis tests. Significant differences were further characterized through a post-hoc pairwise comparison using Calahan’s test, and applying Benjamini-Hochberg’s correction for multiple comparisons. A sensitivity analysis controlling for age and gender was then conducted using negative binomial regression.

Results: Compared to healthy controls, all 3 depressed groups had higher levels of neuroticism ($\chi^2(3) = 84.04, p < .0001$), as well as lower levels of extraversion ($\chi^2(3) = 34.065, p < .0001$) and conscientiousness ($\chi^2(4) = 35.67, p < .0001$). Moreover, higher neuroticism further differentiated attempters (estimate = .12, SE = .039, $p = .013$) and ideators (estimate = .18, SE = .042, $p = .0001$) from depressed controls (Figure 1). Regarding pathological (DSM) personality traits, all measured traits were higher in the 3 depressed groups than in healthy controls except for schizotypal that was uniformly low throughout the sample ($\chi^2(3) = 3.75, p = .29$). In addition, borderline traits were higher in both attempters (estimate = 1.08, SE = .31, $p = .002$) and ideators (estimate = 1.03, SE = .33, $p = .009$) than in depressed controls (Figure 1).

Interestingly, when attempters were further characterized, the above differences in both borderline traits and neuroticism did not apply to high-lethality attempters and late-onset attempters anymore (Figure 2). In addition, lower levels of extraversion differentiated early-onset attempters from both depressed controls (estimate = .19, SE = .05, $p = .003$) and late-onset attempters (estimate = .20, SE = .05, $p = .003$).

Conclusions: More borderline traits and higher neuroticism differentiated those who contemplate or attempt suicide from the non-suicidal depressed elderly. This personality profile seems similar to that of younger suicidal populations. However, our findings suggest that this characterization is mostly representative of older adults who had their first attempt at a younger age or made lower-lethality attempts. This may imply that individuals who are potentially at the highest risk of dying by suicide in old age (high-lethality and late-onset attempters) do not have the emotional instability characteristic of younger suicide attempters. Thus, clinicians must be cautious when assessing suicidal risk in the elderly, since some classic red flags may not apply to those the most at risk.

This research was funded by: R01MH085651, R01MH100095

Poster Number: EI 21

Epidermal Growth Factor and Fibroblast Growth Factor-2 Circulating Levels in Elderly with Major Depressive Disorder

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Introduction: Previous studies indicated that major depressive disorder (MDD) may occur as a result of the changes in neuronal plasticity at structural and molecular levels. Epidermal growth factor (EGF) is a well-known factor involved in neuronal growth and synaptic plasticity. Some studies reported the relationship between EGF levels and neuropsychiatric disorders such as schizophrenia, autism, and Parkinson’s disease. It was also reported that the plasma EGF levels in MDD patients were significantly lower than those in the control participants. Fibroblast Growth Factor-2 (FGF2) is important for neocortical development and adult neuronal survival and growth. It was observed that FGF2 decreased in the Prefrontal Cortex (PFC) of depressed subjects and increased following antidepressant treatment. However, no particular studies of EGF and FGF2 have been conducted in the elderly population with depression. In this study, we aim to investigate the serum levels of EGF and FGF2 in elderly with MDD.

Methods: Study population comprised of 76 patients diagnosed with MDD (age: 71.16±7.95) and 45 healthy control group (age: 72.34±8.02). The patients were interviewed and diagnosed on the basis of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). The Mattis Dementia Rating Scale (MDRS) were used for assessment of cognitive function. The EGF and FGF2 were studied by using multiplex assay for LUMINEX platform. The statistics were conducted by SPSS software. The level of significance is set at $p=0.05$.

Results: There were no significant differences between the three patient groups and the control group in terms of sex or age. There were also no significant differences between the patient groups in terms of serum levels of EGF ($p=0.383$) and FGF2 ($p=0.428$) when compared to the healthy controls. There were not any significant correlations between serum levels of EGF or FGF2 and MDRS total or individual scores in patient group and the healthy control group. There was no significant correlation between age and serum levels of EGF in the patient group and healthy control. HDRS ($p=0.09$, $r=0.195$) /GAD
(p=0.621, r = -0.06) values also did not seem to affect serum levels of EGF in the patient group. However, female patients were found to have higher levels of EGF than male patients (p=0.004). Gender (p=0.402) or GAD scores (p=0.3, r=-0.097) did not affect serum levels of FGF2 in the patient group, however HDRS score is correlated to serum levels of FGF2 in the patient group (p= 0.009, r=0.297). It was also noted that GAD values were higher in patient group compared to healthy control (p=0). There were significant correlations between serum levels of EGF and FGF2 (patient: p= 0, r= 0.698; healthy: p= 0, r=0.594) in both patient group and healthy control group.

**Conclusions:** The present study demonstrated no significant differences between the patient group to the control group in terms of the serum EGF and FGF2 levels. We did not find any significant correlation between the serum EGF and FGF2 levels and age but EGF is affected by gender in the patient group. We also found HDRS score is correlated to serum levels of FGF2 in the patient group. Further studies with larger samples are needed to determine whether EGF and FGF-2 might be useful pathophysiological biological indicators of depression especially in elderly.

**Poster Number: EI 22**

**Antipsychotics, Antidepressants, Anticonvulsants, Melatonin, and Benzodiazepines for Behavioral and Psychological Symptoms of Dementia: A Systematic Review of Meta-Analyses**

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**Introduction:** BPSD includes a diverse group of psychological reactions, psychiatric symptoms, and behaviors that are unsafe, disruptive and impair the care of individuals with dementia in a given environment. BPSD is seen in 1/3rd of community dwelling individuals with dementia and its prevalence rises to approximately 80% in SNF. Both pharmacological and non-pharmacological interventions have efficacy for BPSD management. Current data indicates that antipsychotics and benzodiazepines are most prescribed medications for treating BPSD in nursing homes. However the 2012 American Geriatric Society Beers Criteria includes antipsychotics and benzodiazepines among potentially inappropriate medications and strongly recommends avoiding their use in the elderly. There are multiple published reviews on the use of psychotropic medications for the treatment of BPSD but none of these reviews have systematically studied data on the use of antipsychotics, antidepressants, anticonvulsants, melatonin and benzodiazepines among individuals with dementia exclusively from meta-analysis and have published them in a single document.

**Methods:** A literature search of PubMed, MEDLINE, EMBASE, PsycINFO, and Cochrane collaboration databases were done through August 31, 2016 using the following keywords: dementia, meta-analysis, antipsychotics, antidepressants, anticonvulsants, melatonin, and benzodiazepines.

**Results:** We found a total of 24 meta-analyses that assessed the use of antipsychotics, antidepressants, anticonvulsants, melatonin, and benzodiazepines among individuals with dementia. Sixteen of these meta-analyses evaluated the use of antipsychotics among individuals with dementia. One of the 16 meta-analyses not only evaluated the use of antipsychotics but also antidepressants and mood stabilizers for BPSD. A total of three meta-analyses assessed the use of antidepressants among individuals with dementia, two meta-analyses evaluated the use of mood stabilizers, two meta-analyses evaluated the use of melatonin, and one meta-analysis evaluated the use of melatonin, trazodone, and ramelteon for sleep disturbances among individuals with dementia. There was no meta-analysis for the use of benzodiazepines among individuals with dementia. Data from this systematic review indicates that antipsychotics demonstrate modest efficacy in the treatment of BPSD. Antidepressants appear to improve symptoms of depression among individuals with dementia and may improve some behavioral symptoms among these individuals. Anticonvulsants appear to have no beneficial effects when used in individuals with dementia. Melatonin appears to improve some sleep parameters and some behavioral symptoms among these individuals. Trazodone appears to improve some sleep parameters among individuals with dementia but has not demonstrated efficacy in managing BPSD. The use of antipsychotics and anticonvulsants in this population is limited by their adverse effect profile.

**Conclusions:** Available data indicates that antipsychotic medications have modest efficacy when used among individuals with dementia. When using antipsychotics among individual with dementia, strict adherence to the recent APA guidelines should be maintained. Antidepressants appear to improve symptoms of depression among individuals with dementia and may also improve behavioral symptoms among these individuals. Melatonin and trazodone appear to improve sleep parameters among individuals with dementia and may also improve behavioral symptoms. These medications should be used among individuals with dementia in conjunction with non-pharmacological management techniques to optimize outcomes.
Serum Adiponectin is Related to Dementia
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Introduction: The adipokine adiponectin (APN)’s role in Alzheimer’s disease (AD) is controversial. Some studies suggest that APN is neuroprotective and others that it has harmful effects. We have recently used Multiple Indicators Multiple Causes (MIMIC) models to evaluate the effects of serum protein biomarkers on cognitive performance in the Texas Alzheimer’s Research and Care Consortium (TARCC).1–3

Methods: MIMIC models were constructed in a random 50% subset of TARCC’s participants (n=1691) and used to evaluate the relationship between serum APN levels and cognition. APN might be associated directly with observed measures of cognitive performance, or indirectly via an effect on intelligence. Our approach has been to divide general intelligence (Spearman’s g) into two latent variables, “δ” (i.e., a dementia-specific phenotype representing the disabling fraction of cognitive variance) and "g’" (i.e., the residual non-disabling fraction). Only effects on δ are likely to be dementing. The MIMIC model tests the biomarker’s independent effects on both latent constructs, and their indicators. The model was adjusted for age, depressive symptoms, education, ethnicity, and gender.

Results: Serum APN was significantly related to δ scores (r = 0.10, p = 0.015). APN had no significant effect on g’ (r = -0.25, p = 0.66), nor did it have any independent direct effects on cognitive performance (Figure 1). These results were replicated in a second random subset of TARCC’s data (n = 1694).

Conclusions: APN’s effect on cognition is mediated through intelligence (i.e., δ), likely to be disabling, and therefore to mediate one or more dementing processes. We have previously shown APN to partially mediate age’s specific effect on δ.4 Because the current model is age adjusted, APN must mediate one or more additional age-independent dementing process(es), possibly AD.

This research was funded by: This study was made possible by the Julia and Van Buren Parr endowment for the study of Alzheimer’s Disease and the Texas Alzheimer’s Research Consortium (TARCC), funded by the state of Texas through the Texas Council on Alzheimer’s Disease and Related Disorders, and by a generous gift of Mr. Charles Butt in the memory of Mrs. Littie Littrell.

References

Caloric Restriction and Anti-Aging: An Evolutionary Perspective
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Introduction: Diet optimization represents a promising non-pharmacological intervention to delay the normal process of aging, and age-related conditions such as Alzheimer’s disease and other dementias. Caloric restriction—that is the limiting of daily nutrient ingestion to under 2000 kcal/day in humans—has received significant attention as a promoter of anti-aging. Caloric restriction has been shown to extend lifespan in organisms such as C. elegans, D. melanogaster, non-primate mammals, and, more recently, humans. In particular, caloric restriction has a protective effect on cognitive performance. While it is
possible that caloric restriction acts to extend lifespan by preventing disease associated with obesity, mechanisms independent of chronic disease prevention exist for its role in anti-aging. However, there has been less focus exploring the evolutionary reasons why organisms developed mechanisms that engender the anti-aging effects of caloric restriction. We propose that past the age of reproductive viability, caloric restriction serves as a means of kin selection, whereby nature has selected individuals who require fewer calories to survive and thrive in old age. These individuals can then support their families without significantly depleting available nutrients.

Methods: A literature search was conducted in Ovid MEDLINE combining the terms “caloric restriction”, “aging”, and “biological evolution”. Additional keywords included “diet restriction”, “food restriction”, “calorie restriction”, and “energy restriction” for caloric restriction, “aging”, “aging”, and “longevity” for aging, and “biological evolution” and “genetic fitness” for evolution. The search criteria generated 91 publications from 1946 until present. From these sources, genetic pathways involved in the anti-aging mechanism of caloric restriction were identified.

Results: This study explores several biological mechanisms of caloric restriction on the anti-aging process through the lens of evolutionary adaptation. Specifically, we hypothesize that genes in the pathways of mTOR, mitochondrial reactive oxygen species (mtROS) production and regulation, neurotrophic factors such as BDNF, and insulin/growth hormone changes control the aging process vis-a-vis caloric restriction. These pathways point to a role of caloric restriction protecting the aging brain, and reducing the risk for cognitive decline and dementia.

Conclusions: As the population ages, and health systems grow overwhelmed with increasingly common presentations of complex geriatric patients, it is essential that medicine find ways to help people not only live longer, but better. Leveraging the body’s own genetic pathways, developed over millions of years of evolution, may help in reducing the morbidity and mortality of age-related conditions.

Poster Number: EI 25

Examining Relationships among Subjective Cognitive Concerns and Positive and Negative Affect in Cognitively Normal Older Adults Using a Weekly, Internet-Based Method: A Pilot Study

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Introduction: Subjective cognitive concerns (SCC) may serve as an early indicator of subtle cognitive change in preclinical Alzheimer’s Disease (AD). Despite the clinical relevance of SCC, the stability of SCC over time is not well understood, nor is the influence of changes in mood states on SCC. Better understanding these relationships has important implications for future design of secondary prevention clinical trials in AD, which often rely on SCC as outcome measures.

Methods: To determine the relationships between SCC and mood states over time, we administered the cognitive function index (CFI) and the positive and negative affect schedule (PANAS) to a group of 43 cognitively normal older adults weekly, over the course of a single month. We administered assessments remotely, using a weekly REDCAP survey link via email, to determine the feasibility of capturing multiple, real-time measurements of SCC in relation to mood state. Positive and negative affect scores previously described for the PANAS were calculated, as was a total CFI score. We then assessed the stability of each of the measures over the course of the month. Spearman’s rho correlations were used to determine the relationships among SCC and positive and negative affect scores.

Results: The average age of participants was 72.5 years (Standard deviation (SD): 6.75). The sample was comprised of 41.9 % males; average education was 15.9 years (SD: 2.55) and Mini Mental State Exam score, 28.62 (SD: 1.40). Completion rate of the assessments reached nearly 100% across all time points, with only 3 of 43 participants failing to complete CFI and PANAS measures in weeks 2 and 3. SCC measures were highly stable over the course of the month (Intraclass correlation coefficient (ICC)= 0.943, p < 0.001), as were positive affect scores (ICC= 0.930, p < 0.001), and to a lesser extent, negative affect scores (ICC=0.798, p < 0.001). Participants with greater SCC had significantly lower positive affect scores in weeks 1 and 2, (week 1: r=−0.411, p=0.007; week 2: r=−0.513, p=0.001), while these correlations were no longer significant in weeks 3 and 4 (week 3: r=−0.218, p=0.176; week 4: r=−0.216, p=0.164). Conversely, participants with greater SCC had modestly elevated negative affect scores, though only at later time points, in weeks 3 and 4 (week 3: r=0.351, p=0.026; week 4: r=0.309, p=0.044). Positive and negative affect scores were not significantly correlated at any time point (week 1: r=−0.13, p=0.933; week 2: r=−0.157, p=0.332; week 3: r=−0.278, p=0.083; week 4: r=0.046, p=0.770).
Conclusions: Findings from this first-of-its-kind pilot study support the feasibility in cognitively normal older adults of making multiple remote assessments of SCC in parallel with positive and negative affect using internet-based methods. They also provide some of the first evidence, to our knowledge, of an inverse relationship between SCC and positive mood state. The decreasing strength of this inverse relationship over the course of the month may indicate its habituation over short time intervals, or reflect natural fluctuations in measures of SCC and mood states. Future longer-term, longitudinal studies in larger samples are needed to differentiate between these alternatives. Such investigation has important implications for assessment of SCC and mood states, and for identifying older adults who may be at the greatest risk for cognitive decline.

This research was funded by: BrightFocus Foundation; Alzheimer’s Association

Poster Number: EI 26

The Clock Drawing Test Serves as A Time Saving Surrogate for the Alabama Brief Cognitive Screener as A Method to Distinguish Mild Cognitive Impairment and Alzheimer’s Disease

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Introduction: Cognitive screening tools are essential in assessing patients in busy clinics. The Alabama Brief Cognitive Screener (ABCs) was developed as an alternative to the now proprietary Mini Mental Status Exam (MMSE). The ABC is a 30 point instrument with a similar difficulty to the MMSE and preliminary data suggest the ABC performs similarly in detecting and quantifying impairment in mild cognitive impairment (MCI) and Alzheimer’s disease (AD). The Functional Assessment Questionnaire (FAQ) is an informant reported questionnaire used to assess functional impairment in day-to-day living. In a clinic setting, these instruments may take 5–15 minutes to complete. With the rapid pace with which patients are seen in primary care and psychiatry clinic settings, it is essential to have quick screening tools for cognitive changes. Additionally, changes in mood in elderly patients may be the result of cognitive changes rather than a primary mood disorder. The purpose of this study was to determine if a specific portion of the ABC, the clock drawing test (CDT), could serve as a time-saving surrogate to the full ABC and provide helpful information about cognitive function. Further, the study was designed to determine if the CDT score would correlate to the FAQ similar to the full ABC score. If the CDT could serve as a surrogate to the full ABC, more providers may be able to use the CDT alone as a cognitive pre-screener, saving time in clinic. If the CDT were abnormal, further cognitive assessment may be warranted in a formal cognitive disorder clinic.

Methods: The ABCs, FAQ, and CDT were administered as part of the routine clinical assessment in the UAB Memory Disorders Clinic from 2012 to 2016. The CDT accounts for 3 of the 30 points of the ABC. A retrospective chart review of 153 patients with a diagnosis of MCI (ICD-9-CM – 331.83) and AD (ICD-9-CM – 331) was conducted. ABCs, CDT, and FAQ were available to review in 76 subjects; 47 women, 29 men; mean age 75.4 (SD 8.5) with a diagnosis of AD and 77 subjects; 48 women, 29 men; mean age 75.15 (SD 6.42) with a diagnosis of MCI. Clock drawings rendered from subjects’ charts were masked for patients’ personal information and diagnosis. Two blinded raters (one cognitive disorder trained and one psychiatry trained) independently rated the clocks using a 10 point Revised Scale Used for Scoring the Clock Drawings (RCS) from Rouleau et al. Correlations between ABC and CDT as well as FAQ and CDT were calculated.

Results: The 10 point RCS CDT score had a strong positive correlation with ABC score (Spearman correlation coefficient 0.70) for all subjects. RCS CDT correlates with total ABC score in MCI at 0.46 and RCS CDT correlates with total ABC score in AD at 0.68. When the 3 point CDT score was extracted from the ABCs and compared to ABC without clock score, there was still a strong positive correlation for MCI (0.45) and AD (0.68). The RCS CDT negatively correlates with FAQ score for all subjects at -0.49 and for MCI subjects at -0.25 and AD subjects at -0.33. Further, ABC total score is higher in MCI compared to AD (25 and 17 respectively) and RCS CDT is significantly higher in MCI compared to AD (8.5 and 5.4; Kruskal-wallis Chi-square 43.9184, p<.0001).

Conclusions: The CDT may serve as a possible surrogate for more complete cognitive screening tools like the ABC and for prediction of functional impairment as measured by tools like the FAQ. The CDT can be administered and scored in a relatively briefer period than the full cognitive screens. Impairment on CDT may serve as an indicator that more thorough cognitive screening is warranted. For patients in a geriatric primary care setting or patients in a geriatric psychiatry practice with mood complaints, a brief cognitive screener may be appropriate. Further study is required to determine if the results may generalize to other clinic settings including primary care and psychiatric clinics.
Case of A Patient with Bipolar Disorder and Delayed Subcortical Dementia Onset Following Acute Lithium Toxicity
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Introduction: Lithium carbonate is one of the most effective and utilized treatments for Bipolar Affective Disorder (BAD). Extensive evidence exists explaining the acute effects of lithium toxicity; however, there is less abundant literature explaining the long-term effects of acute lithium toxicity. The purpose of this case study is to elucidate the delayed cognitive and psychiatric ramifications of lithium toxicity [GEC1] and to educate providers as to why early identification is important.

Methods: This case documents the chronic neuropsychological sequelae of a patient with a history of acute lithium toxicity (2.2 mmol/L) who presented to the emergency room with initial symptoms of myoclonic jerks, tremors, and expressive aphasia. Treatment consisted of aggressive intravenous fluid hydration and inpatient rehabilitation. For the next 27 months she received continued outpatient psychiatric care, at the end of which she exhibited a profound decline in cognition, including inattention, marked apathy, and decline in activities of daily living (ADLs) and independent activities of daily living (IADLs). She underwent a neuropsychological evaluation 2-years-post toxicity event to evaluate for dementia, which revealed marked executive dysfunction, including impaired praxis. Follow-up MRI investigation was unrevealing.

Results: The patient’s cognitive deficits were consistent with a subcortical dementing process, replicating the limited data available from previous investigations. Previous research has indicated that lithium toxicity with levels above 2.0 mmol/L can result in permanent brain damage, especially involving the basal ganglia and the cerebellum. The basal ganglia projects to the prefrontal cortex, which explains the executive dysfunction exhibited by the patient. Confirmation of a subcortical dementing process changed the management of this patient’s mental health issues. Pharmacologic management shifted to address dementia as well as Bipolar Disorder. Residual symptoms such as apathy were conceptualized as part of the constellation of dementia symptoms and treated with stimulant trials. The patient and her family were given resources for community support and education groups about dementia to better prepare them for the disease progression. Had the patient’s active symptoms been conceptualized only in terms of Bipolar Disorder, she would not have received adequate treatment to best serve her needs.

Conclusions: This information is increasingly valuable as the population ages to prevent adverse drug reactions in the geriatric mental health population. This patient endured prolonged exposure to toxic lithium levels for ~6 months prior to recognition and treatment, which likely greatly contributed to her eventual development of dementia. Providers should maintain a high suspicion for toxicity in patients treated with lithium who present with new-onset psychosis or altered mental status. Immediately removing the offending agent in such cases could potentially prevent the future development of dementia, reducing the burden on patients, families, and the healthcare system. In patients with a history of lithium toxicity, cognition changes should be closely monitored for signs of dementia as the patient ages. The treatment course of ongoing mental health issues should be adapted to fit the new dementia diagnosis, with the ultimate goal of maintaining functionality where possible and reducing the burden on families. More rigorous clinical studies are needed to investigate the impact of the severity and duration of lithium toxicity on the risk of developing dementia later in life.

A New Device-Aided Cognitive Function Test, User Experience-Trail Making Test (UX-TMT), Sensitively Detects Neuropsychological Characteristics in Patients with Mild Cognitive Impairment (MCI), Dementia, and Parkinson’s Disease
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2National Institute of Technology, Tokyo College, Hachiouji, Japan
3University of Tsukuba, Tsukuba, Japan

Introduction: A new generation of neuropsychological test applications is exploiting the uniqueness of touch screen and mobile technology. We have developed a new Android application named “User eXperience -Trail Making Test (UX-TMT)” for neurocognitive assessment and training. The aim of this study was to investigate the association between cognitive decline and other neuropsychological characteristics of the patients with Mild Cognitive Impairment (MCI), dementia, and Parkinson’s disease on the UX-TMT and other psychological measures.
**Methods:** A total of 84 individuals aged 27 - 86 years were divided into cognitive normal population (CN; n = 54) and a Mild Cognitive Impairment (MCI; n = 8) or moderate or severe cognitive impairment (MSCI; n = 22). We administered the UX-TMT, the Mini-Mental State Examination Japanese (MMSE-J), Japanese version of the Montreal Cognitive Assessment (MoCA-J), the 12 item short-form Healthy Survey (SF-12), and the Japanese version of 20-item Positive and Negative Affect Schedule (PANAS20-J). We examined the distributions of the scores and the time required, and the effects of age and group on these distributions. Then we analyzed the internal consistency and convergent validity in all samples and applied receiver operator characteristic (ROC) analysis to determine a cutoff score that could discriminate the MCI & MSCI group from the CN group.

**Results:** The mean age was 61.9 (27 - 86) y in the CN, 71.4 (64 - 80) y in the MCI, and 80.6 (58 - 89) y in the MSCI groups. Total 97.6 % of the participants had completed all procedures on the UX-TMT, and the mean total test time required for the UX-TMT (TTT) was 460.7 (247.9 - 789.5) sec in the CN, 670.8 (563.1 - 844.2) sec in the MCI, and 843.5 (379.3 - 1659.0) sec in the MSCI groups. The MCI and MSCI group showed significantly lower UX-TMT scores (p value = 0.002 in MCI, and < 0.001 in MSCI, respectively) and longer total time for performing the UX-TMT than the CN group (p value = 0.009 in MCI, and < 0.001 in MSCI, respectively). In ROC analysis, among the CN and MSCI groups (n = 76) showed that, at a score of 20, the UX-TMT had high sensitivity (.85) and specificity (.95). Moreover, the UX-TMT score plus age also showed high sensitivity (.94) and specificity (.90). Additionally, it showed significant correlation with the Mini-Mental State Examination Japanese score (r = .77, p = .001). Cronbach’s alpha (.71 -.83) showed moderate consistency for the UX-TMT.

**Conclusions:** The UX-TMT demonstrated high utility, reliability, and validity as a screening test for cognitive decline in Japanese adults. Therefore it can serve as a useful tool for epidemiological and clinical research, and can be used for primary or secondary screening for cognitive decline in Japanese adults.

This research was funded by: This study was supported by research grants from the National Center of Cognitive Behavior Therapy and Research, National Center of Neurology and Psychiatry (to Dr. Mizusawa and Dr. Horikoshi). The authors declare that they have no competing interests.

Poster Number: EI 29

**Relationships among Potential Precursors of Dementia: Subjective CognitiveDecline, Amyloid Burden, and Brain Hyperactivation**

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**Introduction:** Subjective Cognitive Decline (SCD) is a pre-clinical state that refers to individuals with high subjective concern for cognitive decline (primarily in memory) without objective cognitive impairment. SCD could represent the earliest stage of dementia; however, the course of progression and underlying neural basis are not understood. We measured beta-amyloid (Aβ) deposition and brain activation during a memory-encoding task among older individuals with no cognitive impairment with various levels of subjective concern.

**Methods:** We recruited 72 clinically unimpaired old individuals (mean age = 74±7). We used Pittsburgh compound B (PiB)-positron emission tomography imaging to measure Aβ deposition, and we used the “face-name” memory encoding task in the functional magnetic resonance imaging (fMRI). We built a general linear regression model of voxel-wise brain activation on 1) a subjective concern score, 2) education (the number of years in school), and 3) their interaction.

**Results:** Aβ deposition was significantly correlated with subjective concern scores but not with objective memory scores. The regions that showed a significant interaction between subjective concerns and education were salience networks and executive control networks. The activations in these regions increased as subjective concern increased among participants with higher education; however, the activations decreased as subjective concern increased among participants with lower education.

**Conclusions:** Our results with Aβ deposition suggested that self-evaluation of cognitive function may be more associated with a risk of dementia than scores on objective memory tests during the pre-clinical state. Our fMRI results suggested that higher-order cognition might be affected before the memory in very early stages of dementia. Consistent with the cognitive reserve theory, highly educated individuals displayed increased activations with increased subjective concern, suggesting neural compensation.

This research was funded by: National Institute of Health T32 MH019986 (PI: Reynolds, Charles F; Aizenstein, Howard), P50 AG005133 (PI: Snitz, Beth), P01 AG025204 (PI: Klunk, William), R37 AG025516 (PI: Klunk, William)
**Introduction:** The latent variable “δ” (for “dementia”) appears to be uniquely responsible for the dementing aspects of cognitive impairment (Gavett et al., 2015). Age, depression, and the apolipoprotein E (APOE) e4 allele are independently associated with δ (Royall et al., 2013). On the other hand, education, especially in young age, plays a role in lowering the risk of dementia including Alzheimer’s Disease (AD) (Meng et al, 2012; Basu 2013).

In this analysis, we combine SEM (Structural Equation Model) with longitudinal data from the Texas Alzheimer’s Research and Care Consortium (TARCC) to explore Epidermal Growth Factor (EGF) Family as a possible biomarkers of education’s specific effect on δ.

**Methods:** We employed structural equation models (SEM) to examine the mediation effect of EGF and Epiregulin on education’s association with δ in a well characterized cohort, the Texas Alzheimer’s Research and Care Consortium (TARCC). Subjects included n= 3385 TARCC participants [1240 cases of Alzheimer’s Disease, 688 “Mild Cognitive Impairment ”(MCI) cases, and 1384 normal controls (NC)]. Serum biomarkers levels were determined at baseline by Luminex assay (Rules Based Medicine /Austin, TX). All observed measures were adjusted for depression, ethnicity, gender, Geriatric Depression Scale (GDS) scores, Hb1Ac, apoE4 and HCY. Biomarkers were additionally adjusted for batch effects. We used an ethnicity equivalent δ homolog (i.e., “dEQ”). Wave 2 dEQ scores were used. Thus, the model is longitudinal and arguable causal. Furthermore, we randomly divided the cohort into 2 groups. Group A (n = 1691) was used to construct the model, while Group B (n=1694) was used to replicate and verify the parameters of interest. Analyses were conducted in Analysis of Moment Structures (AMOS).

**Results:** Model fit was excellent [c2 = 542.755(49), p =0.0; CFI = 0.881; RMSEA = 0.055]. Serum EGF was found to mediate 8.4% of educations association with Wave 2 dEQ scores (p < 0.001) (Table 1). The effect generalized across random subsets of TARCC’s sample

**Conclusions:** Low plasma level of EGF plays a role in predicting the cognitive decline in dementia (Stern et al, 2016). Education is a protective factor for developing AD. This protective role is partially mediated by inflammatory biomarkers. Both EGF and Epiregulin are significant mediators of education protective effect on dementia.

<table>
<thead>
<tr>
<th>Biomarker</th>
<th>Z score</th>
<th>% Mediation</th>
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<tbody>
<tr>
<td>EGF</td>
<td>8.38</td>
<td>8.4</td>
</tr>
<tr>
<td>Epiregulin</td>
<td>-3.39</td>
<td>18.5</td>
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*Z values ≥ 1.96 are significant at p ≤ 0.05.*
Methods: This endeavor is a joint venture between IsoDynamic Inc. and The University of Texas Medical Branch (UTMB). IsoDynamic Inc. is a small business that has been partnering with organizations for over a decade to develop NIH funded Web applications and eLearning courses. IsoDynamic is the developer of www.Warfarindosing.org, a joint venture with Dr. Brian Gage of Washington University in St. Louis, the most widely used pharmacogenomic dosing service in the world. UTMB is a leading academic institution with a strong trajectory in health sciences education, medical research, and healthcare services. We have utilized Lean Startup methodology to guide our approach and have conducted a series of interviews with key stakeholders. Through this process, we have identified significant problems and unmet needs related to care of persons with dementia. In response to these needs, we employed Agile Software Development methodology to create the prototype technology platform.

Results: The platform focuses on four complementary need areas that are not currently addressed through existing tools:
- Information sharing. The platform uses technology in an innovative way by promoting and enhancing person-to-person communication, the interaction between groups, socialization, and mental wellbeing. Profiles of the person with dementia are available and include a list of hobbies and a summary of family structure, religious preference, and cultural background. Profiles for both healthcare providers and caregivers include a career history and summary of achievements. This information is extremely important to everyone involved in care—but rarely documented and shared. Our platform can easily provide these profiles in the form of text descriptions or video uploads so that people can tell their stories.
- Training. We have also identified the need to provide caregiver training on maintaining function and activity planning for adults with dementia. The delivery of effective training requires incorporation of key educational techniques to ensure adequate learning. Our platform includes quizzing (both before and after presentations), video lectures, and interactive activities. These resources are easy to use and continually updated and curated by experts in the field.
- Monitoring. The platform also includes tools that make it easy to track different aspects of dementia care, including memory status, caregiver burden, and dementia stage. We have therefore included the Zarit Burden Interview for caregivers and will include additional tools such as Allen’s Cognitive Level, the Global Deterioration Scale, the Functional Assessment Staging Test and the Neuropsychiatric Inventory. Healthcare providers can easily review these assessments and tailor care plans.
- Other wellbeing tools. We have included tools targeted at enhancing positive emotion among all stakeholders. The platform has a tool that persons with dementia can use to thank caregivers, a tool for music therapy, one for memory challenges/exercises, and a place to share caregiving tips and ideas. All of this content is also curated by experts on an ongoing basis. The platform has been developed with a particular focus on ease-of-use to meet the special needs of all stakeholders. Developed on the open source Moodle Learning Management System, the platform is a Web application that will run on any device (PC, Mac, iOS, Android, Linux). Access to the platform is granted after registration, with a username and password to protect information. The site is run in a secure environment (SSL).

Conclusions: In summary, we have created a flexible and easy-to-use platform aimed at enhancing the well-being of people with dementia by using technology to facilitate human interaction and socialization. This platform includes resources for persons with dementia, their caregivers and healthcare providers, in order to improve dementia care.
treatment with APs can help guide whether this medication may be used to enhance well-being. A palliative approach, rather than a curative stance to treatment may be helpful when evaluating treatment for the purposes of wellbeing in many patients with MNCD, stroke and psychosis.

Identifying and Implementing Appropriate Alternatives to the Use of AP Medication

Determining alternatives to APs for treating psychosis and agitation in patients with MNCD start with careful evaluation and providing interventions for co-occurring physical, medical, psychiatric or psychosocial conditions that may trigger the behavioral disturbance. This is of tantamount importance and requires astute, persevering assessment of the patient and the system in which the patient resides and operates. For example, if a psychotic episode is triggered by a medical condition, it is more appropriate to address it first as this may alleviate the psychotic symptoms and agitation. A number of nonpharmacological interventions can be used to manage many of the non-cognitive signs and symptoms of MNCD, and these strategies should be attempted as first-line approaches. Other options include the use of other psychotropic drugs, although no psychotropic medications have been approved by the FDA for the treatment of psychosis or agitation in patients with MNCD.

Managing the Neurologic and Cardiovascular Stroke Risks Associated with AP Medication Use

In addition to considering the issues discussed in the above two paragraphs, for those patients with MNCD, stroke and psychosis who are treated with APs, the following suggestions may provide some guidance in managing the neurologic and cardiovascular stroke risks associated with APs. An important caveat is that each patient must be evaluated individually, and the risk:benefit ratio for each individual must be considered at first evaluation and throughout the course of treatment.

1) Start with low doses of APs and increase the dose gradually. Just as a positive effect is observed, hold the dose to see if giving the patient more time on that particular dose provides the needed therapeutic effect.
2) Monitor the body mass index (BMI)
3) Maintain blood pressure at or below 140/90 without inducing hypotension
4) Consider using low doses of aspirin 81 mg po per day as an antiplatelet treatment
5) Consider using statins, at high doses if appropriate, to keep the LDL level below 70
6) Monitor the glucose level to keep the HA1c level below 7.0

Managing AP Medication Related Metabolic Syndrome Which Can Increase Stroke Risk

APs are known to cause hyperglycemia and weight gain, perhaps in part related to sedation, fatigue and activity reduction. Monitoring BMI, blood glucose levels/HAlc and lipid levels on a regular basis and making lifestyle changes such as encouraging weight loss and engaging in modest exercise can be helpful. Addressing metabolic syndrome and metabolic-based risk factors including inflammation through lifestyle modification also has the added benefit of possibly slowing down or ameliorating the effects of age on cognitive abilities.

Conclusions: Presented here are three cases illustrating the treatment dilemmas associated with the use of AP medication in elderly patients with MNCD, stroke and psychosis. Through their evaluation and treatment, it is possible to start to learn how to prioritize indications for the use of AP medication, identify and implement appropriate alternatives to the use of AP medication, manage the neurologic and cardiovascular stroke risks associated with AP medication use, and manage AP medication related metabolic syndrome which can increase stroke risk.

Poster Number: EI 33

Management of Anxiety Disorders in Parkinson’s Disease: A Case Series and Challenges in Treatment

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Introduction: Management of motor symptoms is often the primary goal in the treatment of Parkinson’s disease (PD). However, anxiety disorders, including generalized anxiety disorder, panic disorder and social phobia are prevalent in this population, ranging from 9–60%.

These disorders are often challenging to treat and negatively impact the course of the disease, and patients’ quality of life. We present a case series of patients diagnosed with PD and impairing anxiety, highlighting the challenges clinicians face in treating this population.

Methods: Case 1: A 71-year old male with a 6-year history of PD, developed significant anxiety coinciding with the presentation of unilateral tremors. The patient struggled to control his anxiety symptoms with multiple pharmacological trials including citalopram, sertraline and lorazepam. After a serious suicide attempt, the patient started paroxetine with an initial good response, then later experienced increased anxiety between scheduled doses of carbidopa/levodopa, when the medication effects was likely wearing off.

Case 2: A 60-year old male with a 9-year history of PD developed worsening anxiety with the onset of unilateral tremors. The patient’s father had severe PD and anxiety. The patient’s anxiety worsened as the PD progressed, to the point where he
developed avoidant behaviors, isolating himself from family and friends. Multiple medications were tried, including venlafaxine, citalopram and sertraline along with intensive psychotherapy. He is currently improved on a regimen of mirtazapine, lorazepam and escitalopram.

Case 3: A 73-year old male with an 8-year history of PD developed anxiety following the presentation of unilateral tremors. The patient reported anxiety, along with associated insomnia. As his gait difficulties progressed (freezing and slowing), the patient’s anxiety worsened to the point that he avoided all social situations. He has been trialed on a number of medications; psychotherapy has helped him the most.

Results: A common pattern exists amongst these cases: the coexistence of anxiety and classic motor symptoms of PD. From a neurobiological perspective, anxiety has been associated with dopaminergic degeneration in brain areas including the orbitofrontal cortex, amygdala and caudate, among others. This specific neurodegeneration and resultant decreased dopamine levels may lead to anxiety, thus providing a reason why standard serotonergic medications have been less effective with these patients.

Conclusions: A review of these cases indicate that anxiety is prevalent in the PD population and may be more challenging to treat compared to anxious non-PD patients. Further research in this specialized is warranted.

References

Poster Number: EI 34
An 18-Day Lifestyle Program Decreases Cardiovascular Risk Factors in Geriatrics with Depression and Anxiety
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Introduction: Increased lipids is associated with many health conditions such as stroke, heart disease, Alzheimer’s and mental health problems. A medical residential eight-teen day lifestyle program various risk factors were evaluated such as cholesterol, triglycerides, HDL, and LDL in geriatric patients with depression and anxiety.

Methods: In an 18-day medical residential lifestyle program, participants were encouraged to practice the 8 principles found in the NEWSTART acronym: (N) nutrition, (E) exercise, (W) water, (S) sunshine, (T) temperance, (A) air, (R) rest, (T) trust in rational, relational, spiritual, and psychological aspects. Along with daily lectures on health principles and cooking classes, participants had one-on-one time with certified physicians, nutritionists, and a chaplain. Participants were offered three plant based meals a day and a massage/hydrotherapy treatments. Labs were taken on baseline and completion of the program.

Results: There were n=70 geriatric patients who had a diagnosis of either depression/anxiety, or both. Out of the participants 27% were male and 73% female. The average age was 66 years (SD: 7.4, min: 55, max: 85). Lipids at baseline consisted of, cholesterol: mean 218, SD 42; triglycerides: mean 179, SD 94; LDL: mean 140, SD 50; HDL: mean 44, SD 8.8. On completion, cholesterol: mean 192, SD 33, (pair t test t(69)=6.24, p<.001); triglycerides: mean 160, SD 67, (pair t test t(69)=2.37, p<.001); LDL: mean 113, SD 31, (pair t test t(69)=5.25, p<.001); HDL: mean 47, SD 13, (pair t test t(69)=1.79, p<.078).

Conclusions: Those who participated in the 18-day lifestyle program significantly decreased cholesterol, triglycerides and LDL levels; however, HDL seemed to show a slight increase even though the change was not significant. The programs suggests that lifestyle changes could be a possible treatment method for lowering lipid biomarkers in geriatrics suffering from depression and anxiety.

This research was funded by: Self-funded.

Poster Number: EI 35
Prevalence and Clinical Correlates of Delirium upon Transition From Acute to Post Acute Care among Patients on Mechanical Ventilation
Jananie Kumaran, MD; Ravindra Amin, MD; Hocametor Carter, MD; Sahil Gehlot, MD; Michael Arnold
Introduction: The estimated prevalence of delirium at hospital admission ranges from 10–40%, whereas the incident rate of delirium during hospitalization occurs in 25–56% of patients. Studies have demonstrated that delirium may persist for weeks to months, which suggests that patients may be discharged to post-acute care settings while still delirious. It is thought that the under-recognition of delirium, as well as recent declines in the length of hospital stays, have most likely contributed to patients being discharged while still experiencing delirium.

In a post-acute care setting, many patients are treated with mechanical ventilation, and may be in different phases of respiratory weaning. In such cases, it may be difficult to discern a clear clinical picture of persistent delirium, as the classic symptoms of delirium may not be expressed.

Objective: To measure the prevalence of delirium among newly admitted patients on mechanical ventilation at the time of admission from an acute to post acute care setting, and to determine clinical correlates. We endeavor to measure the outcomes with respect to weaning of those with delirium to those without delirium.

Methods: A retroactive review of medical records was conducted on patients newly admitted to a post-acute care facility from January–September 2017. The data was derived by implementation of the CAMS assessment performed by a psychiatrist. The confusional assessment method (CAM) is a 4-item algorithm designed through expert consensus to determine the presence or absence of delirium. The information obtained from the CAMS assessment was used to determine the rate of delirium among all new admissions. Medical records were then reviewed to determine clinical patterns and outcomes of delirium. All who required it received appropriate care and follow up.

Results: Data/Results: From 1/1/2017-9/30/2017, there were 158 newly admitted patients to post-acute care setting who were on mechanical ventilation.

Delirium was identified in 12 of the 158 ventilated patients using the CAMS assessment criteria. The prevalence of delirium upon transition from acute to post-acute care was 7.59% (12/158).

The mean age of ventilated patients was 62, with a range of 26–90 years old. There was female: male ratio of 7:5.

Upon the transition from an acute to post-acute care setting, 11/12 delirium cases were treated with antipsychotic medications. Of these patients, 9/12 were admitted to the post-acute care setting already being treated with an antipsychotic medication.

2/12 ventilated patients with delirium had a co-morbid diagnosis of dementia. In 7/12 ventilated patients, physical restraints were needed for patient’s safety.

We endeavor to present outcomes with respect to weaning and complications of delirium, including unexpected extubations and other behavioral adverse outcomes.

Conclusions: Delirium is present in a substantial number of patients on mechanical ventilation upon transition from an acute to post-acute clinical care setting.

The presence of delirium negatively impacts the prospects of weaning from a mechanical ventilator.

We hope to identify correlations between the presence of delirium and the weaning process, possibly being able to find an inverse relationship.

There were a significant number of ventilated patients that required the use of physical restraints for their own safety, displaying the clinical challenges of treating such patients that do not respond to medications alone.

We will derive inferences with respect to long-term outcomes among patients with delirium who are on mechanical ventilation.

The CAM assessment has already been incorporated in the screening of all patients upon admission to nursing facilities. The MDS poses a significant opportunity to increase the identification of delirium upon newly admitted patients.

A psychiatrist will play a significant role in lending confidence to the primary care team to screen for the presence of delirium in the course of a patient’s care across all care settings. In vivo staff training by a psychiatrist helps the primary care team obtain this objective.

References:

Poster Number: EI 36
Pharmacological Strategies for Management of Behaviors Secondary to Dementia
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Introduction: Behavioral and psychological symptoms of dementia (BPSD) occur in majority of patients and are associated with increased mortality, rates of institutionalization and suffering for caregivers. Pharmacological treatments have a role in addition to non-pharmacological interventions in the treatment of behaviors secondary to dementia to provide a better quality of life, decrease depression/psychosis and minimize physical aggression.

Methods: As a teaching and reference tool to non-geriatric psychiatry providers, we offer an algorithmic approach for utilizing various available psychotropic medications for specific BPSD symptoms based on highest benefit to risk ratio using available evidence.

Results: In our medication algorithm for BPSD, antidepressant medications (trazodone and SSRI’s such as citalopram), central alpha-1 antagonist (prazosin), and dementia medications (memantine and cholinesterase inhibitors) have a role in treatment of some of the behaviors with relatively favorable side effect profile. There is a role for the atypical antipsychotic medications especially when other pharmacological treatments have not worked. We also present a case series describing treatment decision-making based on the algorithm leading to improved outcomes.

Conclusions: We hope that availability of an easily accessed evidence-based algorithm for medication treatment of BPSD can help to guide primary providers and general psychiatrists who are increasingly asked to lessen BPSD in dementia, given the shortage of geriatric mental health resources and the ever-growing elderly population.

This research was funded by: no funding was received.

Poster Number: EI 37
When Caring is Not Enough: Helping Caregivers Find Meaning Despite Rejection
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Introduction: Family caregivers represent society’s major alternative to placement of elderly people in extended care facilities, but many are reluctant or unprepared to assume the complex role in which they are placed (Williamson, Shaffer, 2000). The effect is caregiver resentment, anger, and overall increased sense of burden (Bademli, Lok, Kilic, 2013). Caregiving burden has been found to be associated with maladaptive coping strategies, poor quality of life, and higher levels of psychological morbidity (Kate, Grover, Kulhara, and Nehra, 2013). Additionally, guilt has often been identified in the clinical literature as experienced by family caregivers adding to caregiver burden and impacting the quality of care elderly people receive (Gonyea, Paris, de Saxe Zerden, 2008).

While caring for a loved one is always complex, a particularly challenging situation is one in which the receiver of care is rejecting, non-receptive, or otherwise difficult to manage. Caregivers have been found to be most burdened by care receiver behavior problems (Pinquart and Silvia Sorenson, 2003). Stress is greatest when the care receiver does not express appreciation and is unaccepting of the caregivers themselves, with clinical literature providing evidence that family conflict causes higher perceived burden and poorer mental health in caregivers (Strawbridge, Wallhagen, 1991). Therefore, the challenge for clinicians is to help people in the role of caregiving to manage their emotions and stress, accept limitations, and develop acceptance.

In this case report, we will describe how we managed three caregiving relationships with different caregivers; one a spouse, one an adult child, and lastly, an adult sibling. In the first case, we worked with an elderly couple in which the wife had a paranoid delusion about her husband, who was her caregiver, which resulted in his acceptance of the situation. The second case report is about supportive therapy with a middle aged woman left by her siblings to care for a mother who had been and continued to be rejecting of her. The final case report involves working with an older sibling of an identified patient in individual therapy who was delusional and paranoid about the motives of the sister who was caring for him.
**Methods:** Various coping techniques were utilized such as helping the caregivers connect with their values and what they find honorable about being in their role, empathizing with the care receiver, and providing psychoeducation in individual as well as family sessions.

**Results:** Therapy focused on supporting and validating the caregiver was effective in mediating stress and conflict. The caregivers learned to manage their emotions and find ways to feel more positive about their role.

**Conclusions:** Caregiving is stressful under any circumstance, but becomes more difficult in situations in which the recipient is angry and rejecting. Whether or not the caregiver is the person in treatment, it is important for therapists to be aware and involved in reducing the burden on the caregiver. Helping the caregiver to find meaning and purpose can be validating and supportive and benefit the mental and physical health of the caregiver.

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**Poster Number: EI 38**

**Community Awareness Model for Frontotemporal Dementia: Improving Recognition of Illness and Amplifying Support for Caregivers**

Eveleigh B. Wagner, MD; Warren D. Taylor, MD, MHSc

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**Introduction:** Frontotemporal Dementia (FTD) is a neurodegenerative illness defined by an array of clinical symptoms including progressive deficits in behavior, executive function and language. FTD is the third most common type of dementia and the leading type of early-onset dementia. As the disease progresses, patients can develop global cognitive impairment and even motor deficits (parkinsonism vs. motor neuron disease). At end stage, patients have difficulty eating, maintaining continence, moving, and death typically occurs 8 years after initial symptom onset. Symptoms can include: changes in behavior, apathy, loss of sympathy, obsessions, changes in diet, language impairment, and deficits in memory and executive function. FTD is often mistaken for psychiatric disorders (schizophrenia, depression, bipolar disorder) or other dementias (Alzheimer’s, Lewy Body).  

Diagnosis is challenging given the array of possible symptoms. It can take months or years to establish an accurate diagnosis, which leads to patients being misdiagnosed in our clinics, hospitals and assisted care facilities. Treatment is focused on symptom management, primarily focusing on improving behavioral disturbances. Given limited therapeutic options and the degenerative course of illness, FTD places a large burden on caregivers. Families are on the front lines of managing the disease, which rapidly leads to caregiver burn out. The uncertainty and unpredictability of FTD contributes to a feeling of isolation for patients and their families. Past work demonstrates that support groups bolster the resilience of caregivers and raise awareness about available resources.

**Methods:** Our support group approach seeks to combat caregiver burnout. Our group was started by Dr. Adriana Kipper-Smith, PhD, who co-leads the group currently with a psychiatry resident. The monthly meeting consists of a group of 5–10 members, including children, spouses and friends of persons with FTD. The group alternates between an open forum and more structured educational talks. Past educational sessions involve speakers from the Department of Psychiatry and Alive Hospice to discuss such topics as “Progression of FTD,” “The Effects of Nutrition and Exercise on Cognition,” and “Resources for Grief Counseling.” Over the course of time, it was clear that many participants struggled to obtain a clear diagnosis.

In an effort to raise awareness about FTD in our community, our support group recently sponsored a community event in Nashville, TN. This multi-part event features an open forum Q & A with Dr. Bruce L. Miller, expert in FTD from UCSF, and a combined Grand Rounds with the Departments of Psychiatry and Neurology at Vanderbilt Medical Center. The goals of this community event included: raising awareness about the diagnosis of FTD within the medical community; educating facility staff and providers on the differences in presentation of FTD; to provide education for families and caregivers; and to connect patients and families with community resources.

**Results:** Feedback was requested from group members about the value of the support group. A prominent theme was the importance of a space to share experiences. One member stated they had found the benefit as “to hear others’ stories, which may be similar or different and to learn about the disease process.” Another member viewed the group as an “opportunity to come, learn and share resources.” A goal of attendance for another member was to “help others who are struggling because we all have, at one time or another.” Members were asked what they would tell others outside the group about FTD. Responses included, “Alzheimer’s gets a lot of billing; FTD is a different disorder where it can look very different. But all roads lead to the same place: brain death.” Another member framed FTD as “a very hard to diagnose condition that many docs are not familiar with. One has to do research to find the right MD or NP who understands this disease.”

**Conclusions:** The feedback from the group members confirms the value of a support group for FTD and the need for more community education. Families and caregivers can feel lost navigating the medical system seeking treatment for this disease. It is important to have a home base such as a support group to return to for help and centering. We hope that our community
event will raise awareness about the distinct nature of FTD and importance of connecting patients and families with systems of support.

References

Poster Number: EI 39
The Elephant in the Room: Race Matters
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Introduction: There is increasing ethnic and cultural diversity among both the aging population and healthcare providers in the United States. For older adults in particular, ethnicity, race, and culture may influence the relationship between patient and clinician, which is an important aspect of treatment outcome. The ACMGE requires residents to be competent in evaluation and treatment of patients from diverse backgrounds. However, examination of the clinician’s own race, ethnicity and cultural background and its influence on treatment is underemphasized in residency training. As these changes in the demographics of the United States continue, issues around cultural competency in clinical education will grow in salience, with a particular emphasis on how they affect treatment of older adults.

Methods: A series of case vignettes demonstrate the perspective of a South-Asian psychiatry resident on the impact of addressing cultural interactions and biases between both the patient and clinician in a predominantly rural, Caucasian, geriatric patient population. The goal was to strengthen the therapeutic alliance between the clinician and patient and provide effective psychotherapeutic interventions. Identifying how personal factors of race and ethnicity, along with cultural biases, influenced the therapeutic alliance and therapeutic interventions are reviewed.

Results: Examining the patient’s perspective towards the clinician helped facilitate a discussion of patients’ biases and fears and helped improve treatment outcome. Addressing the potential influence of a clinician’s background is key to strengthening the therapeutic alliance and trust between clinician and patient. Rather than focusing on cultural formulation for the patient alone, it is important for clinicians to be aware of and utilize an approach that strongly considers unconscious biases related to culture and ethnicity.

Conclusions: Residency training should include well-defined approaches emphasizing both patient and clinician awareness of how each of their cultural background and biases can influence and guide treatment. As the aging population continues to expand, there must be more focus on how to implement and discuss strategies to address this. More open discussions regarding both a patient and clinician’s background can maximize the therapeutic alliance and improve treatment outcomes, particularly for older adults.

Poster Number: EI 40
The Impact of Social Support and Spirituality on the Association between Stressful Life Events and Resilience among Older Hispanics and Non-Hispanic Whites
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2VA San Diego Healthcare, San Diego, CA

Introduction: Hispanics/Latinos/as (hereafter referred to as Hispanics) are the fastest growing ethnic group among the older adult population in the U.S. Several studies have revealed a phenomenon known as the “Hispanic Paradox,” which describes the trend of Hispanics showing equal or better health outcomes and increased life expectancy compared to non-Hispanic Whites despite facing a number of disadvantages.

While historically, the field of psychiatry has focused on mental illness, recently there has been increased interest in investigating positive mental health, including resilience and its correlates. The experience of stressful life events has been linked to resilience among older adults, yet research among older Hispanics in this area is scarce. The link between stressful life
events and resilience may be influenced by many potential factors. Among them, social support and spirituality are both increased among Hispanics, with prior findings suggesting that these factors may buffer the negative effect of stress on resilience among older adults.

The present study examined (1) the association between stressful life events and resilience among older Hispanics and non-Hispanic Whites; and (2) the impact of social support and daily spirituality on this association by ethnic group. We hypothesized that (1) increased stressful life events would be associated with lower resilience among both ethnic groups, but that the association would be weaker among Hispanics; and (2) social support and spirituality would buffer against the negative impact of life events on resilience among Hispanics, among whom both factors are increased.

Methods: Participants included 240 community-dwelling older adults from the Successful AGing Evaluation (SAGE) study at the University of California, San Diego (UCSD) Stein Institute for Research on Aging. For the present analyses, we selected all SAGE study participants who were Hispanic and aged 50 years or older (n=120). We then randomly selected the same number of non-Hispanic White study participants with similar age, gender, and years of education. Participants were mailed a self-report survey of successful aging, which included measures of resilience (10-item Connor-Davidson Resilience Scale), stressful life events over the past year and level of associated distress (Life Events Scale), spirituality (Brief Multi-Dimensional Measure of Religiousness/Spirituality-Daily Spiritual Experiences subscale) and social support (Duke Social Support Index—Social Interaction subscale).

Results: Hispanics reported significantly higher stress associated with recent life events and higher spirituality than non-Hispanic Whites, with no significant ethnic differences on income, marital status, resilience or social support (Table 1). A multivariable linear regression analysis showed that Hispanics and non-Hispanic Whites had comparable associations between stressful life events and resilience; across the entire sample, higher degree of stress associated with life events was significantly associated with lower resilience (p=.004). Separate multivariable models by ethnic group showed that among Hispanics, there was a significant interaction between life events and both spirituality and social support on resilience. Specifically, among Hispanics with low social support or low spirituality, stressful life events were associated with decreased resilience, but among Hispanics with high spirituality or high social support, stressful life events and resilience exhibited no significant association (Figure 1a). Non-Hispanic Whites showed a similar pattern of performance on spirituality, but there was no significant interaction between social support and life events on resilience (Figure 1b).

Table 1. Cohort Characteristics by Ethnic Group.

<table>
<thead>
<tr>
<th></th>
<th>Hispanic (n=120)</th>
<th>Non-Hispanic White (n=120)</th>
<th>t/X²</th>
<th>p²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, M (SD)</strong></td>
<td>73.08 (9.92)</td>
<td>73.02 (10.45)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Gender, n (%) male</strong></td>
<td>68 (56.7%)</td>
<td>68 (56.7%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Education, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS or less</td>
<td>41 (34.2%)</td>
<td>41 (34.2%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Some college to Bachelor</td>
<td>56 (46.7%)</td>
<td>56 (46.7%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Post-graduate</td>
<td>23 (19.2%)</td>
<td>23 (19.2%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Marital Status, n (%)</strong></td>
<td></td>
<td></td>
<td>0.37</td>
<td>.88</td>
</tr>
<tr>
<td>Married</td>
<td>73 (60.8%)</td>
<td>78 (65.0%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Single</td>
<td>4 (3.3%)</td>
<td>3 (2.5%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>23 (19.2%)</td>
<td>20 (16.7%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Widowed</td>
<td>20 (16.7%)</td>
<td>20 (16.7%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Personal yearly income, n (%)</strong></td>
<td></td>
<td></td>
<td>4.25</td>
<td>.12</td>
</tr>
<tr>
<td>Less than $35,000</td>
<td>68 (58.6%)</td>
<td>48 (45.3%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$35,000 - $74,999</td>
<td>29 (25.0%)</td>
<td>38 (35.9%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>$75,000+</td>
<td>19 (16.4%)</td>
<td>20 (18.9%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td>30.23 (6.69)</td>
<td>31.09 (6.68)</td>
<td>0.99</td>
<td>.32</td>
</tr>
<tr>
<td>Stressful life events</td>
<td>0.39 (0.38)</td>
<td>0.27 (0.29)</td>
<td>–2.55</td>
<td>.01</td>
</tr>
<tr>
<td>Social Support</td>
<td>8.50 (1.39)</td>
<td>8.72 (1.63)</td>
<td>1.15</td>
<td>.26</td>
</tr>
<tr>
<td>Low social support (%)</td>
<td>57 (49.1%)</td>
<td>48 (40.3%)</td>
<td>1.84</td>
<td>.17</td>
</tr>
<tr>
<td>Daily spiritual experiences</td>
<td>16.00 (7.83)</td>
<td>21.79 (8.79)</td>
<td>5.22</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Low spirituality (%)</td>
<td>39 (34.5%)</td>
<td>69 (61.1%)</td>
<td>16.16</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

aBased on independent samples t-tests or Chi-Square tests.
bIndicates percent of participants scoring below the median of the overall sample on this measure.
Conclusions: Contrary to our primary hypothesis, higher degree of stress associated with life events was similarly associated with decreased resilience in both ethnic groups. In regards to our second aim, we found that while both social support and spirituality appeared to buffer the potential detrimental impact of stressful life events on resilience among Hispanics, only spirituality did among non-Hispanic Whites. Findings from this study lend support to the practice of encouraging the use of social supports and spirituality to help older adults, particularly Hispanics, cope with stressful life experiences. For researchers, present findings highlight the importance of considering social support and spirituality when developing interventions aimed at promoting resilience among older persons, particularly Hispanics. There are likely to be other major determinants of resilience among older persons, but these two factors are particularly prominent among Hispanics and appear to have powerful protective effects on resilience in this group. Thus, considering these factors might be key for the development of targeted culturally relevant interventions.

This research was funded by: This work was supported by the Sam and Rose Stein Institute for Research on Aging, the UC San Diego Frontiers of Innovation Scholars Program, and the following National Institutes of Health grants: K23105297, P30 AG021684, UL1TR000124, UL1TR001881, UL1TR000100, K23MH107260, and T32MH019934.

Poster Number: EI 41
Treatment Issues in an Elderly Female with Repeat Inpatient Psychiatric Admissions
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Introduction: Ms. S., is a seventy year old African American widowed female, living alone, with a previous psychiatric history of schizoaffective disorder and a past medical history of uncontrolled diabetes mellitus. She has had over thirty inpatient lifetime psychiatric admissions and a longstanding history of noncompliance. She has been followed by an Assertive Community Treatment (ACT) team for the last two years. In spite of ACT Team follow up, she has had numerous admissions which on many occasions were back to back admissions. Her inpatient stays were characterized by extended periods, some of which were up to sixty days. On one occasion, she was readmitted within twelve hours of discharge. On this occasion, she was admitted for manic and aggressive behavior in the context of medication noncompliance within days of discharge from a different hospital. On our unit, the patient refused medications consistently and was uncooperative with vital signs and fingerstick glucose monitoring. She was observed to demonstrate extreme mood swings, quickly escalating to violent and aggressive behavior towards staff and other patients and then becoming calm. This poster explores difficulties in management and discharge of patient. At times, she required intramuscular injections of Haloperidol and Lorazepam to calm her. She refused psychiatric, diabetic, and hypertensive medications, so a forced medication order was obtained through the local mental hygiene court. She showed clinical improvement on a regimen of Aripiprazole titrated to a dose of twenty milligrams per day orally and Sodium Valproate one thousand milligrams per day orally. She was extremely inconsistent on Sodium Valproate so it was discontinued. She was eventually discharged on four hundred milligrams of intramuscular long acting Aripiprazole. Multiple meetings were held with her ACT team to ensure a safe discharge. Issues which emerged prior to discharge included obtaining her consent to make a duplicate key for her apartment, ensuring that her house was habitable, obtaining a referral for visiting nurse services for monitoring of her diabetes and hypertension, educating her on the importance of diabetic monitoring and compliance with her medication regimen, and obtaining home care services for an adequate amount of time. Unfortunately, she was ineligible for home care services as her personal income was in excess of the threshold required for eligibility. Also, the absence of a responsible family member who could provide adequate support made her discharge challenging. Eventually, she was discharged home with referral to visiting nurse services and ACT Team follow up. This case highlights the challenges in maintaining elderly psychiatric patients with comorbid medical issues who are only partially cooperative with their treatment regimen in the absence of community resources and social supports.

Methods: Continuous psychiatric assessment of the patient along with review of factors that affect discharge and recidivism.

Results: Identification of factors which impede safe discharge of elderly patients with medical comorbidities and poor social support with review of literature done.

Conclusions: Measures need to be taken upon admission to ensure that geriatric patients with multiple readmission rates, poor social supports, and history of treatment failure have the appropriate interventions set in place well before discharge to decrease repeat encounters for similar presentations. Some of these include access to appropriate housing, visiting nurse services, ACT team follow up, and education to encourage treatment compliance.
Frailty among Older Adult State Hospital Patients
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Introduction: The life expectancy of patients with severe mental illness (SMI) is 25 years shorter than that of the general population, on average. Patients with SMI have very high rates of diabetes, metabolic syndrome, cardiovascular and cerebrovascular disease, and chronic lung disease. Their shortened life expectancies are believed to be driven largely by behavior factors that ultimately lead to premature death related to one or more of these conditions. Beyond this effect, some research suggests that the allostatic load associated with SMI may accelerate the aging process, further compounding age-related vulnerability.

Frailty is a developing clinical construct that is emerging as a syndrome in clinical geriatrics. It is a fragile, depleted, vulnerable state associated with weakness, fatigue, cognitive slowing, depression, sarcopenia, unexplained weight loss, markedly diminished reserve capacity and resilience, and heightened vulnerability to morbidity and mortality. Why some people remain robust in old age while others become frail is an increasing focus of aging research. This question is of even greater relevance to those with SMI who may be susceptible to “pre-senile” frailty.

The Older Adult Unit (OAU) at New Hampshire Hospital (NHH) serves patients with SMI who are 60 years of age or older. Clinical experience with this young-old population reveals that a substantial percentage is prematurely frail. This pilot study looks at the prevalence of frailty, and its clinical correlates, among the patients of the OAU at NHH.

Methods: A cross-sectional, convenience sample of patients, hospitalized on the OAU of the NHH, a Dartmouth-Hitchcock Medical Center affiliated state psychiatric hospital, comprised the subjects of this study. Data were collected initially as part of a quality improvement project, and approval to use the data for research purposes was obtained from the IRBs of both the DHMC and the New Hampshire Department of Health and Human Services. Data on age, sex, psychiatric diagnoses, numbers of psychiatric and non-psychiatric medications, duration of illness since first onset of illness, number of psychiatric illness episodes, presence of substance use disorders, and Charleson Comorbidity Index (CCI) score were collected by chart review. All patients who agreed to participate were rated using the Montreal Cognitive Assessment (MoCA) and the Edmonton Frail Scale (EFS).

Results: Complete data were obtained for 22 out of 38 patients, and this comprises the study sample. The average age was 66 years old (range 56–76), equally distributed by gender. Twenty patients were diagnosed with schizoaffective disorder, schizophrenia, or bipolar disorder. Two patients had been admitted due to psychiatric complications of late-life dementia. The average number of psychiatric illness episodes was 4 (range 1–13), and the average duration of the mental health disorder was 24 years (range 3–64). The average number of psychotropic medications was 4 and non-psychiatric medications 5. The mean EFS score was 7 with a range of 2 to 13, distributed bimodally (See Figure 1). Nine patients were frail (score of 8 or greater), 2 were vulnerable (scores 6–7), and 11 were not frail (scores 5 or less). MoCA scores were more normally distributed with a mean of of 20 (range 7–29).

The relationship was tested between EFS and other variables using a linear regression model adjusted for age and gender. We found statistically significant relationships between the EFS and MoCA scores and the number of psychotropic medications, but not the CCI or number of non-psychiatric medications (See Figure 2).

Conclusions: Nearly half of a cohort of young-old patients at NHH met criteria for frailty using the Edmonton Frail Scale. “Pre-senile” frailty appears to be an important problem for aging patients with SMI, and should be a focus of future studies. Screening older adults for frailty may be a useful way to identify those who can safely continue to receive standard older adult...
services versus those who might be better served by specialty geriatric mental health services. Frailty may be a more helpful criterion than cognitive status for stratifying older patients according to clinical needs. An unexpected finding was that frailty correlated with number of psychiatric medications but not CCI, number of non-psychiatric medications, psychiatric illness duration, or number of episodes. Future studies should determine whether these findings can be replicated, and also should investigate the relationship between the clinical variables examined in the present study and proinflammatory markers among young-old patients with SMI.

Poster Number: EI 43

**Psychotherapy Engagement and Completion Through Peer Support: Implications for Geriatric Populations**

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\(^1\)University of Michigan, Ann Arbor, MI
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**Introduction:** Underutilization of mental health services, especially psychotherapy, in the veteran population is a serious concern. Some approaches to enhancing treatment engagement include pre-treatment focused on psychoeducation and motivational enhancement and peer support interventions. Peer support is thought to enhance rapport as a result of shared experience thereby facilitating treatment engagement.\(^1\) Some studies have shown that use of a brochure or peer phone call can increase the likelihood of scheduling a mental health appointment,\(^2\,3\) and peer outreach shortly after clinic evaluation and after a first therapy session improved attendance rates and reduced dropout.\(^4\)

To improve engagement in evidenced-based therapies, our clinical research team introduced and studied the effect of a 4-session treatment planning class (TPC). This pretreatment intervention was designed to help veterans learn foundational skills, and set personalized goals to prepare them for evidence based treatments. We found that TPC, increased rates of completion of subsequent evidence-based psychotherapy.\(^5\)

To improve engagement in TPC, we found that veterans who met in-person with a PSS prior to TPC demonstrated greater initial TPC engagement and completion compared to those who were scheduled for TPC as usual.\(^6\)

Data regarding treatment engagement for elderly patients in mixed-age psychotherapy groups is sparse. Studies have found that elderly patients were less likely than younger adults to perceive a need for mental health treatment, particularly psychotherapy,\(^7\) and older adults are more likely to engage in treatment if treated in elder-specific groups rather than typical mixed-age groups.\(^8\)

Given that the PSS is not older age and TPC is a mixed-age group, the current study investigated whether the above PSS intervention had a different effect on older veterans.

**Methods:** This retrospective study was approved by the Veterans Administration Ann Arbor Healthcare System Institutional Review Board. Veterans in the study were referred to psychotherapy and required to complete a 4-session TPC as part of general Mental Health Clinic processes. Patients referred to the TPC group met with PSS immediately following the appointment with a referring provider based on PSS availability.

The sample included 270 participants divided into three cohorts based on age: \(\leq 44\) \((N=99)\), 45–64 \((N=101)\), and \(\geq 65\) \((N=70)\). Demographic information for the groups was obtained from chart review.

The primary outcome was engagement in TPC, as measured by initial session attendance and overall TPC completion rates. Secondary outcomes included assessment of differences in demographic factors between groups, including sex, relationship status, and level of education.

**Results:** No differences were found between age cohorts on initial treatment engagement, \(X^2 (2, N=270) = 0.21, p > .05\) or completion, \(X^2 (2, N=270) = 0.35, p > .05\) of the TPC course with a trend toward higher engagement rates among geriatric patients. A Kruskal-Wallis test revealed no significant differences among age cohorts, \(X^2 (2, N=217) = 0.34, p > .05\) for total number of sessions completed.

Secondary analyses found age cohort differences for relationship status, \(X^2 (2, N=262) = 16.69, p < .01\), sex, \(X^2 (2, N=262) = 9.68, p < .05\), but not education, \(X^2 (2, N=203) = 3.03, p > .05\). The majority of participants were male, although the youngest age cohort had more female veterans. The veterans in the geriatric cohort were more likely to be in a relationship.

**Conclusions:** This study builds on data-driven support for the role of PSS in VA outpatient mental health clinics specifically regarding psychotherapy pre-treatment engagement. As the VA struggles with staffing issues and efficiency, care must be taken to ensure that geriatric patients are not automatically subsumed under one-size-fits-all therapeutics by investigating cohort specific effects.

This study found high rates of veteran engagement in outpatient mental health therapy services following brief interaction with a PSS. This finding was consistent across age groups suggesting that neither PSS’s younger age nor mixed-age TPC group
composition had a negative impact on elderly veteran engagement compared to younger veterans. The trend toward higher engagement in TPC among geriatric patients could become significant if replicated with larger sample sizes. Elderly veterans were significantly more likely to be in a relationship compared to other cohorts, which may explain the trend toward better engagement in the older cohort, but it is unlikely that the effect is large enough to mask a substantial negative impact from the mixed-age TPC group and/or younger PSS. There are multiple limitations of this study including: lack of a randomized design, as well as site/clinic specific and PSS specific effects thus decreasing generalizability. Additional, randomized control, multi-site studies are needed confirm both PSS positive effect on psychotherapy engagement and investigate any cohort effects.

Poster Number: EI 44

**Psychiatric Emergency Services and Older Adults: Where is the Right Place for Help?**

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**Introduction:** Older adults are increasingly using emergency services for multiple conditions including medical, psychiatric and psychosocial issues that are often chronic but prone to exacerbation. In addition, geriatric patients are likely to suffer effects from polypharmacy, develop psychiatric symptoms as a result of medical problems, medication side effects and call for emergency services as a result of confusion. The elderly often use services due to psychosocial stressors, environmental hazards and as a result of being the victim of a crime. Attention to cognitive loss, risk for suicide and violence, use and abuse of substances are vital to the emergent psychiatric evaluation among older adults. Geriatric patients often arrive seeking emergency psychiatric services with no clear history, inadequate informants, limited medication reconciliation and ambiguous presentations. Given limited community resources with variable supports, increasing shortages of geriatric mental health providers and long waits for subspecialty consultations, older adults are seeking psychiatric services in the emergency department with increasing frequency. While the emergency department is often a poor setting in which to adequately evaluate and address geriatric needs, elderly people are utilizing these services more often and for diverse conditions.

**Methods:** A Comprehensive Psychiatric Emergency Program (CPEP) in a large urban tertiary care facility that serves a cultural diverse population and provides more than 6,000 visits annually surveyed patient visits over an 18-month time period. Patient age, gender, presenting problems, diagnosis, disposition and care needs were monitored. The number of repeat visits within a 30 day period by age was recorded and the characteristics of older patients who frequently visit the CPEP was noted.

**Results:** Adults over the age of 65 years accounted for 12% of visits to the CPEP overall. The average age of older adults who visit the CPEP was 74 years with a range from 65 to 98 years. Women utilized the service at a higher rate than men, 63% versus 37%. Older adults experiencing primarily psychosocial stressors and anxiety accounted for 38% of all visits and typically activated the Emergency Medical System themselves. Older adults who arrived under conditions of police custody or as Emotionally Disturbed Persons were more likely to have diagnoses of a Psychotic illness (30%), Bipolar disorder (8%) or Suicidal thoughts (13%). Depressive disorders were identified in 18% of those who visited the CPEP. Only 4% of the older adults had a formal diagnosis of Dementia and 2% were identified as having Delirium. Co-morbid substance use disorders were identified in 12% of the elderly. Of the patients who visit the CPEP 5 or more times per month, 85% were older than 65 years. More than 15% of the older adults seen were identified an undomicilied or homeless.

**Conclusions:** Older adults utilize psychiatric emergency department services at a high rate, often driven by unmet psychosocial and social service needs. Many elderly activated the 911 system due to a need for increased home services and limited access to home-based medical and psychiatric care. Elderly brought in by EMS or Police typically suffer from chronic mental illnesses, limited access to care and are often homeless. Older adults more likely to return to the CPEP many times in a 30 day period often due to unmet psychosomal needs. Of concern is the low rate of diagnosis of Dementia and Delirium as the population of elderly who visit emergency departments of any kind typically suffer from cognitive loss. Older adults are utilizing psychiatric emergency services with increasing frequency for services that are better provided by outpatient clinics and homecare providers. Elderly who are homeless, suffer from chronic mental illness and lack of treatment providers are typically escorted to the psychiatry emergency department under involuntary conditions often by law enforcement agencies. Psychiatric emergency services must be prepared to provide linkage to community services for the aged, promote the use of mobile crisis teams and home-based care. The problems of homelessness and substance use are increasing among this group and resources are lacking. The psychiatric emergency department is increasingly becoming a point of entry for older adults with psychosocial needs, limited access to care, unstable housing and untreated chronic mental illness.
Physician Aid in Dying: Overview of Current Legal Status in the United States and Issues Pertinent to Geriatric Psychiatry
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2MedStar Georgetown University Hospital, Washington, DC

Introduction: Physician Aid in Dying (PAD), alternatively referred to in the literature as Physician Assisted Suicide (PAS), has been legal in the United States since 1997. At this time, several states permit PAD under specific legal statutes or common law. Many other states have pursued similar legislation with variable success in recent years. As of January 2016, it was estimated that 1 in 6 Americans live in jurisdictions permitting PAD. Geriatric psychiatrists may be directly or indirectly involved in PAD requests. Common ethical issues surrounding PAD include patient autonomy, nonmaleficence, protecting vulnerable populations, alleviating suffering in terminal illness, and conscientious objection. Our poster will present an overview of the current legal status of PAD in the United States and highlight issues pertinent to geriatric psychiatry.

Methods: A literature search was conducted in PubMed using the terms "physician aid in dying", "physician assisted suicide", "legalization", and "psychiatry". Articles written prior to 1997 (when PAD was first legalized) were excluded.

Results: At this time, four states (Oregon, Washington, Vermont, and California) and Washington, D.C. have statutes permitting PAD and outlining procedures for this process. One state, Montana, allows PAD under common law statute. At least thirty-six states have attempted to introduce legislation to legalize PAD. In states with statutes addressing PAD, patients are typically required to make multiple requests, both orally and in writing. They are required to have a terminal illness with a prognosis of six months or less as agreed upon by two physicians. Mental health and/or capacity assessments are not mandated unless at least one of the two evaluating physicians suspects a contributory underlying psychiatric illness or incapacitation. All states provide opt-out measures for conscientious objectors or providers not wishing to participate.

Initial data suggests that patients utilizing PAD are frequently college educated, insured, and engaged in hospice care. Patients requesting PAD are often those with terminal illnesses who are experiencing co-morbid severe pain, discomfort, and deterioration in functional status. Women, African-Americans, and those with cognitive impairments may be more likely to oppose PAD, highlighting the need to maintain protections for vulnerable patients where PAD is permitted. In one survey of physicians who have received requests for PAD (including those practicing in states where PAD has not been legalized), physicians reported a significant amount of co-morbid depression in those requesting PAD. Despite this, no legal requirements for psychiatric and/or capacity assessments exist in any state that has legalized PAD.

In Oregon, the state where PAD was first legalized, patients are more likely to die at home and spend less time in intensive care units in the last thirty days of life, when compared to the general population. This likely due to several factors: early adoption of advanced directives and Physician Orders for Life-Sustaining Treatment (POLST), education initiatives related to end-of-life care issues, and well integrated palliative care measures.

Conclusions: It is likely that more states will continue to pursue and pass legislation supporting PAD. Therefore, it is important for geriatric psychiatrists to have an understanding of the medico-legal issues surrounding PAD. Although a mental health or capacity evaluation is not required in states currently permitting PAD, such assessments may be sought if there are concerns about an underlying mood disorder or decision making capacity. Given that many patients seeking PAD are elderly, and may be suffering from an underlying cognitive impairment (dementia or delirium), geriatric psychiatrists should become more involved in PAD requests in the future, as more patients gain access through state by state legalization.

When Paranoid Psychosis Becomes Dementia: Treatment of the Aging Patient with Chronic Psychosis
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Introduction: With the increase in the older adult population, there has been an associated rise in the prevalence of dementia. A growing number of studies examine the ethical issues in caring for a person with dementia and the complexity involved, yet there are few that focus on the aging individual with chronic psychosis.

Methods: Review of the literature on the ethical issues and management of older individuals with dementia and schizophrenia. A clinical case is discussed to illustrate the challenges in caring for an older patient with history of schizoaffective disorder and a major neurocognitive disorder.
Physician Assisted Suicide Influences Suicide Rates among Older Adults in Oregon  
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2Hofstra-Northwell SOM at Staten Island University Hospital, New York, NY

Introduction: Oregon became the first state to legalize Physician Assisted Suicide (PAS) in 1994 with the Death With Dignity Act (DWDA), and the option first became available to patients in 1997 after a series of injunctions and appeals. PAS allows terminally ill Oregon residents with less than 6 months of life expectancy to obtain a prescription for a lethal dose of medication for self-administration. As a matter of statute, these deaths are not recorded as suicides. Although public records are not available and the elder requires closer monitoring, the team may need to activate additional resources such as mobile crisis unit or emergency services (if there is acute risk) should the patient become noncompliant with treatment.

This research was funded by: None

References

Poster Number: EI 47
Annual suicide data was obtained from Oregon Vital Statistics Reports for 1995 to 2015. Statistics across discrete age ranges were combined to obtain a single 65 and older value for males and females respectively, which were then summed to obtain a single combined count. The respective annual rates were then calculated using population data specific for age and gender recorded in Appendix A.

Deliberate self-death counts were calculated by summing suicide counts and conjectured PAS counts, and rates were then calculated using population data specific for age and gender recorded in Appendix A.

Statistical analysis was conducted with RStudio. Pearson’s product-moment correlation was performed to investigate the possibility of a correlation between PAS and suicide.

Results: In males 65 and older, a negative correlation of moderate strength (-0.53) exists between suicide rates and PAS rates, in line with the conjecture that suicide rates decline among males age 65 and older as decedents opt for PAS. Oregon reported a 15% decrease in suicide among males age 65 and older between 2000 and 2010. The deliberate self-death rate reveals a decrease of <1% during this period. Our evidence is further explored in a graphical demonstration depicting lines of best fit for suicide and PAS regressed on year with the former displaying a sharp negative slope and the latter an offsetting positive slope, while the combined deliberate self-death rate remains approximately stable. In females 65 and older, no clear statistical relationship is noted between suicide rates and PAS rates. An overall increase in suicide rates is seen between 1998 and 2015, and an even greater increase is noted in PAS rates.

Conclusions: Proponents of PAS have argued that it will delay or discourage suicide by preventing premature deaths from a lack of access to a guaranteed “death with dignity”. Among males age 65 and older in Oregon, there is evidence of diversion from suicide to PAS, but no notable change in the rate of deliberate self-death. Opponents contend that PAS will promote a more positive perception of suicide and lead to an increase in suicide rates. Among females age 65 and older in Oregon, a slight increase in seen among suicides, along with a greater increase in PAS, such that it is now the preferred means of deliberate self-death among women older than 65.

The legal declaration that deaths under the Act are somehow categorically distinct from suicide invites a further exploration into the factors that distinguish PAS from suicide in general. Many elderly suicide decedents likely meet the criteria that would have made them eligible for PAS, such as the presence of terminal disease and a determination of unimpaired judgment. Previous studies have shown depression to be highly associated with acceptance of PAS and euthanasia, and have demonstrated that patients with terminal illnesses can be influenced by depression into accepting PAS. Although the DWDA is apparently limited to individuals free of mental conditions that impair judgment, a desire to die by suicide demands a high index of suspicion and should prompt a psychiatric evaluation.

### Males and Females age 65 and Older in Oregon

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<th>Female PAS Rate</th>
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This research was funded by: None.
**Poster Number: EI 48**  
Challenges of Differentiating Transient Ischemic Attacks From Psychiatric Symptoms in an Older Woman Suffering from Comorbid Bipolar and Generalized Anxiety Disorders  
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2Douglas Mental Health University Institute, Montreal, QC, Canada  

**Introduction:** Ms. B., a 78-year-old widowed woman with a past history of bipolar disorder and generalized anxiety disorder, was increasingly agitated and irritable when presenting to her outpatient psychiatry appointments. She had an intense fear of paralysis with suicidal ideation, and reported transient lack of balance episodes evolving since her husband had suddenly died of a massive stroke one year prior. She was followed as an outpatient in neurology and treated with both aspirin and clopidogrel for the intermittent gait instabilities, despite a normal neurological exam. She also had several cerebral scans which were normal except for a non-progressive effacement of the left occipital sulcus.  

**Methods:** Ms. B. was eventually admitted on the geriatric psychiatry ward for a bipolar disorder mixed episode. During her hospitalization, she reported several neurological complaints, but her symptoms were never observed by the medical team. Eventually, her neurologist recommended to stop her clopidogrel because the hypothesis of transient ischemic attacks was ruled out. We introduced a second-generation antipsychotic to control her mixed state symptoms. Ms. B. recovered easily from her mixed episode and was discharged home. Two weeks later, she passed away due to a massive stroke.  

**Results:** Although we believe that all necessary precautions were taken in the treatment of Ms. B., her tragic story reemphasizes the importance of fully investigating all symptoms in patients who have multiple non-observable neurological complaints. A concern remains that this might not be done systematically, especially in patients with known psychiatric illnesses or when the symptoms can be easily related to a psychological stressor, like this was the case for Ms. B. Being cautious is of the utmost importance in psychiatric patients given the possible elevated risk for cerebral vascular events with antipsychotics.  

**Conclusions:** In this poster, we highlight the importance of investigating neurological symptoms, which in some cases, can be life threatening if untreated. We also discuss the difficulty in disentangling neurological from psychiatric symptoms, especially when they are subjective or unobserved.

**Poster Number: EI 49**  
Teaching Decisional Capacity Evaluation  
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**Introduction:** Older adults are at increased risk for impaired decisional capacity due to higher risk for delirium, cognitive or sensory impairments. Older adults are more likely to have multimorbidities, face complex treatment decisions, and consider advance directives and end-of-life care options. Physicians regularly assess patients’ decisional capacity with regards to medical treatments. Prior studies have found significant gaps between physician residents’ perceptions of information conveyed and patients’ understanding of medical treatment options during the informed consent process. It is imperative that physicians working with older adults are trained to evaluate decisional capacity.  

**Methods:** We developed a multi-modal curriculum to teach medical students a systematic approach to the clinical evaluation of patients’ decisional capacity. The training was implemented as part of the University of Wisconsin School of Medicine and Public Health’s Internship Prep Course series, offered at the close of students’ 4th year of medical school, and designed to improve readiness for upcoming clinical responsibilities. The curriculum consisted of an online module, featuring clinical vignette videos, followed by a live classroom session, incorporating in-class questions with an audience response polling system (ARS). The training concluded with small group application of skills through role play. Students took turns in three roles: a resident evaluating capacity and obtaining informed consent, a patient with or without decisional capacity, and an evaluator providing feedback on the interaction. Students were provided with a copy of Etchells’ Aid to Capacity Evaluation (ACE) tool to guide their interaction and focus on providing specific feedback for their peers. Following the training, students were surveyed online to evaluate the curriculum and offer feedback.  

**Results:** Approximately 115 students participated in pre and post-module surveys. After completing the online module, the percentage of students who reported being satisfied with their medical education on consent and capacity evaluation improved from 34% to 46%. Students reported their overall comfort level with obtaining informed consent and evaluating decisional capacity improved as a result of the teaching. In the open-feedback portion, nearly a third of students requested more explicit
or detailed analysis of the process for assessing capacity. During the live lecture, the ARS captured the student responses to seven true/false statements during the in-class didactic portion. Each of the seven in-class questions received between 110 and 117 responses, demonstrating good student engagement during the session (90–96% of 122 students). Lastly a post-lecture survey email was also sent to participants following the lecture, which captured about 70 (57%) student responses. After the live lecture and small group session 84% indicated they were comfortable with obtaining informed consent and 63% indicated they were comfortable with assessing a patient’s capacity to make decisions.

**Conclusions:** Clinical assessment of decisional capacity is a potential area of growth for 4th year medical students. Overall, students’ comfort with clinical decisional capacity evaluation skills improved following implementation of a multi-modal curriculum. Based on feedback from last year and responding to pressures to further compress medical education classroom time, we intend to make modifications to this year’s curriculum by incorporating more didactic materials into the online curriculum that students can complete prior to class. Medical education has moved to exist on multiple-platforms, and integrating online, video, and in-class formats effectively can be challenging. Students are willing to provide feedback to improve these approaches, if educators are willing to thoughtfully solicit this information. Real-time capture of feedback in the classroom using ARS would likely yield a much higher response rate than an emailed survey. As options for medical treatment continue to expand, it is an ethical imperative, to evaluate patients’ understanding and ability to participate in medical decision-making.

**Poster Number:** EI 50

**Comparison of Cognitive Status, Psychopathology, and Functional Performance of Minority Older Adults with and Without Type 2 Diabetes**

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2Mount Sinai School of Medicine, New York, NY

**Introduction:** Depression and anxiety are common comorbidities of Type 2 Diabetes in the general population. There is a number of European studies that demonstrate that psychopathology typically predates the onset of diabetes, and the patients with diabetes are at a relatively low risk of worsening cognitive status as well as depression and anxiety. Elderly patients with Type 2 Diabetes as well as patients belonging to diverse ethnic backgrounds have not been fully studied. This analysis compares cognitive, psychopathology, and functional status in non-demented, minority, older adults.

**Methods:** A cross-sectional analysis was conducted to assess differences in cognitive deficits, psychopathology, and functional status of non-demented, older, minority individuals with and without diabetes recruited from Alzheimer’s Disease Research Center. 299 eligible minority subjects aged > 50 years, whose cognitive status was described as either Normal, amnestic Mild Cognitive Impairment (aMCI) or non-amnestic Mild Cognitive Impairment (naMCI) were analyzed. Diabetes was reported based on clinician assessment of subject’s medical history. Cognitive status was assessed using Mini Mental Status Exam (MMSE) and ten neuropsychological measures. Activities of daily living were assessed using the Functional Assessment Questionnaire (FAQ). Psychopathology including depression, anxiety, as well as behavioral symptoms were assessed by Neuropsychiatric Inventory, short form (NPI-Q). The differences between the diabetic and non-diabetic groups were analyzed through chi-squares and t-tests.

**Results:** 208 subjects were non-diabetic; 91 diabetic. Diabetics and non-diabetics were similar in age (mean age: 71 yo vs 73 yo) and sex (male: 57% vs 56% and female: 43% vs 44%). Diabetics and non-diabetics were not significantly different within ethnic groups: non-Hispanic black (31.9% vs 39.9%), Hispanic (62.6% vs 52.4%), others (5.5% vs 7.7%). Non-diabetics had higher education (12.5 years vs. 11.3 years) than diabetics.

Cognitive status as assessed using MMSE were similar (average=27). All neuropsychological measures also were similar except for WAIS. NPI-Q (3.0 vs. 2.4) and FAQ (1.0 vs. 0.8) scores were higher in diabetics than non-diabetics, but not statistically significant at 5% level. Besides the rates of agitation/aggression and appetite/eating, other NPI-Q domains were not statistically significant between the diabetic and non-diabetic groups. Difference in rates of anxiety (20.4% vs. 26.4%) and depression (28.0% vs 33.3%) as reported on NPI-Q were not statistically significant between diabetics and non-diabetics. Rates of agitation or aggression (26.4% vs. 14.8%) and appetite or eating problems (21.8% vs. 12.8%) were both higher in diabetics than non-diabetics (p<.05).

**Conclusions:** This preliminary study of baseline characteristics of individuals with and without diabetes in the selected population points to the fact that there may not be a significant influence of the type 2 diabetes status on psychopathology, cognitive, and functional domains in older minority adults.

This research was funded by: No Support to Report.
White Matter Integrity in the Corpus Callosum is Associated with Resilience Factors in Geriatric Depression

Beatrix Krause, PhD1,2; Roza Vlasova1,2; Amber Leaver2; Kelsey T. Laird, PhD1; Prabha Siddarth, PhD1; Katherine Narr2; Helen Lavretsky1

1Department of Psychiatry, Semel Institute, UCLA, Los Angeles, CA
2Brain Research Institute, UCLA, Los Angeles, CA

Introduction: Resilience has a protective role on the effect of depression. Reduced white matter integrity on the contrary, is a risk factor for, and a marker of geriatric depression. The link between resilience and white matter integrity in aging can increase our understanding of antidepressant treatment and serve as a marker for treatment responsiveness in geriatric depression. We analyzed the relationship of psychological resilience factors in relation to brain white matter integrity in depressed geriatric patients.

Methods: Resilience was assessed using the Connor-Davidson Resilience Scale (CD-RISC) in a large sample of older adults (>60 years) with major depressive disorder (MDD; N=337). We identified four factors for resilience: (1) grit, (2) active coping self-efficacy, (3) accommodative coping self-efficacy, and (4) spirituality. Diffusion-weighted imaging data, collected using two similar MRI acquisition protocols from 70 of the 337 patients (mean age = 70.44, SD=6.8, 49 women) were analyzed. Mean fractional anisotropy (FA) was extracted from tract-based and anatomical regions-of-interest (ROIs), selected based on their demonstrated associations with cognitive/mood control (cingulum (CGC), posterior cingulum (CGH), genu of corpus callosum (GCC) and components of the dopaminergic mesolimbic reward system (anterior limb of the internal capsule (ALIC) and ventral tegmental area (VTA)). The corticospinal tract (CST) was included as a control region. To examine associations with resilience factors, general linear models were used including mean FA from each ROI as a dependent variable and resilience factor scores as predictors. Age, sex and MRI acquisition protocol served as covariates. Using the same statistical model, post-hoc whole brain voxel-based TBSS analyses were performed to probe for regionally specific relationships with resilience factor scores.

Results: Results showed significant associations between the resilience factor grit and white matter integrity of the GCC (p=0.008). Trend level effects were further observed for grit and CGC (p=0.057) and CGH (p=0.09) mean FA. Similar regional effects were observed when conducting additional whole brain TBSS analysis. No significant results were obtained for reward system-related ROIs, the control ROI, or the other resilience factors. This was confirmed in the additional whole brain TBSS analysis.

Conclusions: The relationship between white matter integrity in the GCC was significantly associated with the grit factor of resilience in depressed older adults but not with types of self-efficacy or spirituality. Future studies are required to further clarify neural substrates and mechanisms of resilience and stress in depressed and non-depressed populations.

This research was funded by: This work was supported by NIH grants AT008383, AT009198, MH097892, and Alzheimer’s Research and Prevention Foundation grants to Dr. Lavretsky.

The Case of the Bright Splenium

Patricia Serrano, MD

Psychiatry, Einstein Medical Center, Philadelphia, PA

Introduction: Altered mental status is a frequent reason for consult for neurology and psychiatry services. Multiple causes can be considered including: Wernicke’s, hepatic encephalopathy, metronidazole-induced encephalopathy, and acute demyelination. We present the case of a 69-year-old Hispanic female with end stage liver disease admitted for altered mental status. Neurology and Psychiatry were consulted.

Methods: Pubmed and eOvid searches were conducted using the terms metronidazole-induced encephalopathy and Extrapolant myelinolysis.

Results: She had been at an outside hospital one week prior where she had been treated with metronidazole for C. difficile. Since discharge she had worsened with altered sleep-wake cycles and confusion. On the morning of her admission her family could not awaken her. On admission she would awaken to noxious stimuli, immediately falling back to sleep. She was hyperreflexic with bilateral ankle clonus and Babinski. Her neck extensors were stiff. No twitching or jerking was noticed. Her
Genetic polymorphisms in the interleukin pathway may be used to identify PLWH at high risk for accelerated aging. SNPs in inflammation-related genes are associated with longevity in the general population, but inflammation-related genes in association with aging has yet to be explored. In PLWH, single nucleotide polymorphisms (SNPs) in inflammation-related genes are associated with increased inflammation and inflammation-related health conditions that may contribute to accelerated aging in PLWH. SNPs to compare mean age acceleration (expressed as Z-scores) and the odds of any past or current HIV-associated non-AIDS (HANA) conditions, respectively, between major allele homozygotes and minor allele carriers. Covariates considered were demographics (age, sex, race, gender), education, comorbidities (HIV-associated neurocognitive disorder [HAND], lifetime major depressive disorder, substance use disorders), HIV disease characteristics, study site and DNA methylation assay batch.

**Results:** Genotypes associated with higher inflammatory levels in the IL-6 (minor allele carriers) and IL-10 genes (major allele homozygotes) were associated with significantly greater accelerated aging (higher Z-scores) compared to other genotype groups (p's < .05). The association between TNFα genotype and accelerated aging was not significant. The odds of any past or current HAND condition were over three times greater in IL-6 minor allele carriers versus major allele homozygotes (p = .03). HANA rates did not differ between IL-10 or TNFα genotype groups (p > .05). Covariates adjusted for due to significance in models were study site, assay batch, and HAND status for analyses with IL-6 SNP; assay batch and HAND status for analyses with IL-10; and assay batch, HAND status and gender for analyses with TNFα.

**Conclusions:** Genetic polymorphisms in the interleukin pathway may be used to identify PLWH at high risk for accelerated aging. Findings provide insights into pathophysiological pathways leading to rapid aging in HIV.
This research was funded by: Supported by The HIV Neurobehavioral Research Center (HNRC) award P30MH062512 from NIMH, the Sustained Training in HIV and Aging (STAHR) training grant (R25 MH108389), and grants R01MH096648 and U24MH100929.

Poster Number: EI 54

From Stress to Serenity: The Use of Aromatherapy to Engage Patients in Care
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Introduction: Complementary and Alternative Medicine (CAM) interventions are widely utilized by older adults with a high degree of satisfaction with use. Surveys show that nearly 60% of elderly people utilize at least one CAM intervention, many using 3 or more. The healing powers of aromas and plants have strong historical and cultural roots. Many elderly people have utilized components of aromatherapy as part of their developmental and family rituals. Aromatherapy programs have been successful in reducing pain, depression, anxiety and stress levels in older adults. Reduction in negative emotions, high rates of acceptability and ease of use both for individual and group programs make use of aromatherapy among older adults intriguing and desirable in a variety of health care settings. Aromatherapy interventions have been safely and effectively used in a variety of healthcare settings including neonatal intensive care units, emergency departments, labor and delivery areas and hospice. We focused on the use of aromatherapy oils to reduce stress, improve satisfaction with health care delivery and increase engagement with treatment among geriatric psychiatry inpatients and those receiving outpatient services.

Methods: A convenience sample of geriatric inpatients on a 31-bed acute care unit within a tertiary care facility were exposed to samples of essential oil of Lavender (Lavendula angustifolia), Grapefruit (Citrus paradisi) and Peppermint (Mentha piperita) on successive days. Similarly, geriatric outpatients in the waiting area of a large outpatient clinic serving more than 800 patients over the age of 65 years were offered aromatherapy oils prior to their appointments. Oils were provided on individual wood sticks that were immersed in one of the oils and given to the patient for individual use. Patients were encouraged to hold the stick near the nose and experience the aroma for at least 3 deep breaths. They were given the option of discarding the stick or keeping it with them. Rating of satisfaction with the aroma, ability to engage in treatment as an outpatient and willingness to attend an inpatient group program were rated using 5-point Likert type FACES scales.

Results: The aromatherapy interventions were widely accepted by all participants with no offers of testing the aromas declined. Average age of the patients was 78 years with a range from 55 to 99 years. Most patients (98%) accepted the aroma sticks and either took them back to their rooms on the inpatient service, or to the session with the outpatient provider. Impact on satisfaction with care and engagement with treatment was rated use a 5-point Likert type FACES rating scale that allowed patients to point to their level of satisfaction in any language. More than 90% of all of the participants rated feeling Very Satisfied after utilizing the aroma. Patients suffering from acute psychosis and mania were just as likely to accept the aromatherapy intervention as more stable outpatients who were experiencing anxiety, depression or sleep disturbance. Patients who used Peppermint oil were most likely to report feeling motivated to attend a group activity while those given Lavender oil reported the greatest level of satisfaction with care.

Conclusions: Use of individualized aromatherapy was associated with increase in satisfaction with healthcare, greater feelings of well being at the time of use and an increase in engagement with the healthcare providers or activities. These interventions offer amazing opportunities in settings where patients often feel ignored, such as hospital hallways and outpatient waiting areas. The use of aromas on an individual basis is inherently empowering as patients can be given choices, utilize the interventions as they see fit, and engage providers and the healthcare system to be partners with them. The use of aromatherapies in health care settings offers the ability to reduce stress, increase satisfaction and engage in treatment more actively. Our pilot intervention displayed an increase in satisfaction and engagement with their care among patients who were offered individual aromatherapy interventions. Additional measures of well-being and follow up with care are being pursued.

Poster Number: EI 55

Enhancing the Quality of Care of the Elderly Veteran by Intense Geriatric Psychiatric Education of Nursing Staff in the Community Living Center
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Introduction: Background: VA Eastern Kansas operates 3 settings of care for the older Veteran: Behavioral Health, Skilled care, and Dementia care nursing home settings, known as Community Living Centers (CLC) in the VA community. Population accepted in the Behavioral Health CLC are those with an acute change in their mental health diagnosis (Schizophrenia, Bipolar Mood Disorder, Depression) or are presenting with behavioral and psychological symptoms of dementia. Veterans in the Dementia community living center setting have a diagnosis of moderate to severe dementia, and those Veterans in the skilled care CLC are cognitively intact or have a mild neurocognitive disorder and other psychiatric comorbidities.

Statement of Need: Locally, Nursing education training incorporates a psychiatric rotation, a geriatric rotation but not a geriatric psychiatry educational rotation. We will describe strategies developed and implemented in this setting to provide education to the current nursing staff in our community living centers and the incoming nursing students from the local colleges. Educational emphasis is on verbal and non-verbal communication skills, management of behaviors, Delirium, Dementia and Depression, and other psychiatric diagnosis such as Schizophrenia, Bipolar Mood Disorder and end-of-life care for persons with dementia in long term care settings.

Methods: The following nursing educational training sessions have been implemented from December 2013 to present:
- Champions for the following training programs were established: STAR-VA program, Dementia Capable Care and Hand-in-Hand.
- Geriatric Psychiatrist provided educational material and condensed lectures on Depression, Delirium, Dementia, Schizophrenia, Bipolar Mood Disorder, Insomnia and Anxiety.
- Hospice and Palliative care physician and a nurse champion provided end of life simulation training.

Results:
1. Behavioral Health Community Living Center:
   - Decreased use of benzodiazepines on Veteran’s with dementia from 33% in 2014, to 27% in 2015 to 0% in 2016 and 0% in 2017.
   - Decreased use of antipsychotics on Veteran’s with dementia: from 78% in 2014 to 41% in 2015 to 0% in 2016 and 4% in 2017.
2. Dementia Care Community Living Center: Opened in Nov 2015
   - 0% use of benzodiazepines for 2016 and 2017.
   - Use of antipsychotics: 10% in 2016 and 20% in 2017
3. Improved understanding in differentiating behaviors from people with dementia vs. mental illness/ no dementia
4. Enhanced understanding of caring for the dying Veteran in a Community Living Center setting

Conclusions: The positive care approaches learned in managing the behavioral and psychological symptoms of dementia (BPSD) enhanced quality of care and quality of life as evidenced by the reduction in the use of benzodiazepines and antipsychotics.
The crisis in the Geriatric workforce shortage must be addressed through empowering all providers of geriatric care. Providing intensive Geriatric Psychiatry education to both the traditional direct care providers and nursing students is necessary to meet the complex needs of our growing geriatric population.

This research was funded by: 1U1QHP28731 USDHHS: Health Resources and Services Administration (HRSA) Geriatric Workforce Enhancement Program Interprofessional Strategic Healthcare Alliance for Rural Education (iSHARE).

Impact of Hearing AIDS and Cochlear Implants on Depressive Symptoms in Older Adults
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Introduction: Hearing loss is a common issue for older adults, affecting almost two-thirds of Americans over seventy. There are multiple psychiatric implications for this population, as hearing loss is associated with worsened cognitive status, greater depressive symptoms, and, in the case of Deaf patients, a distinct collective identity that necessitates culturally sensitive care. For older adults with hearing loss, multiple studies have shown a lower likelihood of depressive symptoms among those using hearing aids, though this does not imply causality. Given the morbidity associated with depression, strong evidence supporting auditory intervention would signify an important opportunity for clinical impact, particularly in light of the limited utilization of assistive devices; less than one-fifth of adults with hearing loss utilize a hearing aid.

Methods: To further investigate whether use of hearing aids or cochlear implants reduces symptoms of depression in older adults, a literature review was conducted. The literature search was performed by a medical librarian (TWE) using the Ovid MEDLINE and PubMed databases. Searches were performed in September 2017, and databases were searched from inception. Medical subject headings and keyword variants for the concepts of hearing aids/cochlear implants and depression were...
identified and combined. Results were limited to the English language; animal studies and pediatric studies were excluded. All abstracts were screened for the inclusion criteria of conducting an intervention using hearing aids and/or cochlear implants, any depression-related outcome measure, and a participant population with average age of at least 65 years old. Full-text articles were examined for those abstracts which met inclusion criteria or were unclear on whether qualifications were met. Evidence quality was assessed using the 2009 Levels of Evidence guidelines from the Oxford Centre for Evidence-Based Medicine.

Results: Of 71 unique abstracts, 28 were selected for full-text review, and 10 met all inclusion criteria. Assessment of depressive symptoms varied across studies; 7 utilized the Geriatric Depression Scale. The Depression Anxiety Stress Scale-21, Center for Epidemiological Studies-Depression Scale, and the Hamilton Depression Scale were utilized in one study each. Interventions also varied across studies, with 3 using cochlear implants, 4 using hearing aids, and 3 using either option. Findings were mixed, with 7 studies demonstrating statistically significant improvement in depressive symptoms and 3 without improvement. Per Oxford Centre for Evidence-Based Medicine guidelines, 2 studies were classified as Level of Evidence 2b. The other 8 studies were Level of Evidence 4, most of which were case series lacking a control group as they followed a group before and after auditory rehabilitation.

Overall evidence quality was weak, meriting a Grade of Recommendation of C. Findings were mixed, with 3 of 10 studies finding no statistically significant improvement in depressive symptoms with hearing aid or cochlear implant use. However, the three non-significant studies all showed a trend toward improvement or, in one case, had a very low baseline incidence of depression, with less than 10% of participants with a GDS score > 5.

Conclusions: Overall results suggested that hearing aids and cochlear implants may be a beneficial non-pharmacologic option for improving depressive symptoms in appropriate older patients, but the evidence quality was weak. Notable heterogeneity was present among the ten studies that met inclusion criteria. The intervention type and method of assessment of depressive symptoms varied, as did degree of hearing loss and requirement of audiometric testing for participation. Further limiting findings for purposes of this review, several studies were not specifically focused on an older adult population. More sufficiently powered, well-designed studies are needed to understand whether hearing aids and cochlear implants alleviate depressive symptoms in older adults.
during the ECT procedure ranged from 19mC to 576 mC, the mean stimulus charge was 444 mC. The mean stimulus charge of participants with HTN surge was 430mC. Seizure duration of participants during the ECT procedure ranged from 19 seconds to 203 seconds, the mean seizure duration was 61 seconds. The mean seizure duration of participants with HTN surge was 70 seconds. The total number of ECT treatments given per patient in the study ranged from 1 to 61, the mean number of ECT treatments per patient was 11. Patients who had a HTN surge during ECT had a mean of 7 ECT treatments. Patients without a HTN surge during ECT had a mean of 12 ECT treatments.

**Conclusions:** The demographic, clinical and procedural correlates of ECT-induced hypertensive surge were examined in 72 patients in this study. Nineteen percent of 72 patients had a documented hypertensive surge. Bilateral electrodes placement was associated with a higher risk of HTN surge at 24% than unilateral electrode placement at 16%. However, the difference in percentages was not statistically significant.

The differences in mean age of patients, gender, mean stimulus charge and mean seizure duration with and without HTN surge during ECT were not found to be statistically significant.

The difference in the mean number of ECT treatments for patients with and without HTN surge during ECT was statistically significant (p = 0.006). Patients who had a HTN surge had a lower mean number of ECT treatments then patients without a HTN surge. This may indicate as the number of ECT treatments a patient receives increases the likelihood of HTN surge during ECT procedures decreases. This may indicate that patients with HTN surge during ECT were less likely to continue ECT treatments. Based on these findings additional work can be done to study a larger sample size to determine if these trends reach statistical significance.

Further studies would involve examining whether ECT-induced hypertensive surge contributes to ECT-induced cognitive deficits.

**This research was funded by:** No financial support was received.

Poster Number: EI 58

**Relationship between Equol Production Status and Sleep Apnea Syndrome in the Elderly**

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**Introduction:** It has been reported that the prevalence of Sleep Apnea Syndrome (SAS) in elderly people (over 65) is more than 20%. Elderly patients with SAS have a predilection to develop hypertension, arrhythmia, angina pectoris, myocardial infarction, diabetes mellitus, and cognitive decline. On the other hand, it is controversial that consumption of soy isoflavones, which are predominantly derived from soybeans, reduces the risk of cardiovascular disease. Recent study reveals, equol, a metabolite of an isoflavone, differs greatly among individuals. Equol is converted from daizein by specific gut bacteria, and is more bioavailable than soy isoflavone. In this study, we sought to confirm whether equol production status is associated with incidence of SAS.

**Methods:** Subjects were participants of a medical check-up program at Ehime University Hospital Anti-aging Center, which is specifically designed to evaluate atherosclerosis and cognitive impairment. All clinical data were obtained from the check-up process. In the present cross-sectional observational study, several clinical parameters were measured. An equol producer was defined as having an equol level greater than 1,000 nmol/L in the urine using Soi Check (Health Care System Co., Ltd.). The frequency of all apneas and hypopneas associated with 3% oxygen desaturation index (3% ODI) is referred to as the apnea-hypopnea index (AHI). In this study SAS was defined as 3%ODI>10/hour because this correspond to AHI ≥15/hour defined as moderate-to-severe SAS.

**Results:** A total of 152 participants (average age 69 ± 9 years old, 61 men) were enrolled, and their equol production status was assessed. Overall, 60 (40%) of 152 subjects were equol producers. In equol producers, the 3%ODI value was significantly lower than those of non-producers (7.2 ± 5.8 vs 10.0 ± 6.5, p < 0.05). In addition, the proportion of those who had 3%ODI>10 was significantly lower than those of non-producers (14% vs. 41%, p < 0.05). There were no significant differences in age, sex, and BMI between equol producers and non-producers.

**Conclusions:** Equol producers have lower 3%ODI compared with non-producers, indicating that SAS may be less susceptible. It was also suggested that SAS patients may have low equol production capacity. In the future study, active research on equol would be needed since it is expected to prevent atherosclerosis and cognitive decline.

**This research was funded by:** None.
Introduction: Dementia is increasingly common as our population ages, and more seniors are living at home longer. Caregivers and those with dementia need assistance to be able to successfully age in place. Memory clinics that provide ongoing follow up for this reason have become more common, but little is understood about how well these clinics support patients to remain at home and/or transition to higher levels of care. When patients and their families are not well supported in the community they often end up in hospital secondary to an acute medical illness or due to complications of their dementia. In Canada, it is not uncommon for these individuals to remain in hospital waiting for nursing home beds. These patients are often referred to as Alternate Level of Care (ALC). For geriatricians to be effective in guiding the patient and family through the dementia journey it is important that they have the ability to predict when changes in care at home or transitions to higher levels of care may be needed. The purpose of this study was twofold. First, to determine how effective a Memory Clinic can be in supporting patients with dementia and their families in the community and in assisting with transitions to higher levels of care. Secondly, to determine how well geriatricians are able to predict when changes in care may be needed.

Methods: A Memory Clinic in one city in New Brunswick has been in place for over 8 years and routinely follows up to 350 patients each year. These patients have a diagnosis of dementia and live in their own homes or assisted living facilities. They are seen in the clinic with a family member every 7–9 months (more frequently if needed) by a nurse and a geriatrician. At each visit, the patient and family are provided with a comprehensive geriatric assessment which includes a review of their cognition, function, medical problems, medications, behaviour, current living arrangements, home supports, and care giver strain. Recommendations are made at each visit regarding the management of their dementia (pharmacological and non-pharmacological), other medical problems, home supports, and future care planning. In addition, the geriatrician who saw the patient and family provides a prediction of whether the patient was likely to need a nursing home (NH), would become ALC in hospital or die within one year. A retrospective chart review was conducted on patient visits between January 1, 2015 and May 31, 2016. Patient disposition at one year following their visit closest to May 31, 2016 (index visit) was also retrieved and categorized as "at home/assisted living", ALC, NH, or expired. These outcomes were compared to physician predictions, and descriptive statistics and cross tabulations were calculated.

Results: Of the 361 patients who visited the Memory Clinic during the 18 month period, 63% were female. Alzheimer’s dementia was the most common diagnosis (65%), followed by Mixed Alzheimer’s/Vascular dementia (21%). Mean age was 81 (SD 7.4) years. The average length of time being followed in the clinic was 21.5 (SD 22.0) months. The mean Mini Mental Status Exam score was 19.7 (SD 5.7), mean Functional Assessment Screening Tool score was 4.8 (SD 0.6), and mean Clinical Frailty Scale score was 5.8 (SD 0.6). Most (83%) were living at home at the time of their index visit. After one year, 54% of patients were still living at home, 15% had an ALC designated stay in hospital (81% of which were related to dementia), 13% had transitioned to NH without becoming ALC, and 9% had died. Between visits, 110 (30%) of the patients/families called the clinic 2 times on average, most often for information. At their index visit, 51% of patients who went to nursing home had antidepressant use and 24% had neuroleptic use, while those who remained at home had antidepressant and neuroleptic use of 37% and 7%, respectively. Sensitivity of physician prediction of death, admission to NH, or admission to hospital with ALC designation within one year ranged from 6% to 48%. Specificity ranged from 82% to 98%. Positive predictive value of physician predictions ranged from 20% to 31%, and negative predictive values ranged from 90% to 92%.

Conclusions: Follow up in a Memory Clinic can contribute to successful aging in place, as the majority of patients in this sample remained at home or transitioned to nursing home without crisis. Geriatricians, using overall clinical impression, were able to predict those who would still be at home one year later, but they were less able to predict those that would end up in nursing home, ALC in hospital or who would die within one year. More research is needed to better understand which patient characteristics contribute to nursing home admission, ALC admission to hospital, and/or death.

This research was funded by: Dalhousie Medical Research Foundation Katelyn Robarts Summer Studentship.
Understanding Sexuality in Later Life: Presenting a New Conceptual Model to Define the Sexual Experience of Older Adults
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Introduction: Sexuality is widely recognised as an important factor in quality of life and personal well-being throughout the lifespan, and is composed of a variety of sexual aspects and related factors that can influence the experience and expression of sexuality. Despite this, the sexuality of older adults remains under-researched, and there is currently little consensus on how sexuality in later life is defined and measured. In an ageing population, recognising the sexuality of older individuals has implications for the health and wellbeing of older adults. This presentation will introduce a new conceptual model that reflects the different aspects and factors associated with sexuality for heterosexual older adults. It will also discuss the development of a new measurement scale designed to align with this model.

Methods: Group concept mapping methodology was used to develop a conceptual model of sexuality for older adults. The process of group concept mapping comprised three major phases: data collection, data structuring (sorting) and rating and data analysis. In the data collection phase, on-line brainstorming was used to collect information on the experiences of 39 people aged 45 and over in relation to their sexuality. The brainstormed information was then transformed into a set of statements that described unique aspects of and factors associated with sexuality. In the second phase, these statements (k=75) were sorted by 25 participants aged 45 and over into themes by grouping the statements together in a way that they felt made sense to them. Participants were then asked to name each group of statements and rate the relative importance of each statement on a Likert-type scale. In the final phase, the data from the sorting and rating tasks were analysed by the researcher to identify clusters of related statements and to calculate the average importance of different clusters, based on the participants’ importance ratings on individual statements. The results of these analyses were then used to develop the conceptual model of later life sexuality aspect and associated factors. Participants in both phases were recruited from rural and regional areas across Australia using media advertisements.

Results: The conceptual model of later life sexuality developed in this study comprised eight themes. These themes include, in order of their average importance: partner compatibility, intimacy and pleasure, determinants of sexual desire, sexual expression, determinants of sexual expression, barriers to intimacy, sexual urges, and barriers to sexual expression. Aspects of sexuality are reflected in the sexual expression and sexual urges themes. Factors associated with sexuality are reflected in the partner compatibility, determinants of sexual desire, determinants of sexual expression, barriers to intimacy, and barriers to sexual expression themes. Both aspects of sexuality and factors associated with sexuality are reflected in the intimacy and pleasure theme. The development of the conceptual model highlighted several gaps in how the sexuality of heterosexual men and women in later life is measured. This led to the development of a new measurement scale that reflects the eight themes identified in the model. This measurement scale allows for the assessment of the personal relevance of each of the eight sexuality domains identified within the conceptual model.

Conclusions: The conceptual model highlights the importance of interrelationship dynamics in the experience of sexuality for older adults while still recognizing the relevance of a variety of sexual expressions and of sexual problems that are more commonly the focus of sexuality research in later life. This model provides a mechanism for health professionals to identify areas of importance for patients who seek assistance for later-life sexual problems. It can also be used to help enhance interventions that focus on improving sexual satisfaction and quality of life beyond the more traditional ideas of sexual functioning, such as erection rigidity or intercourse frequency. The new measurement scale will provide a much-needed tool for assessing sexuality in later life that is designed specifically for use with older adults and that assesses areas other than sexual behaviours, sexual function, and sexual or marital satisfaction. The knowledge reflected in the new conceptual model will also help to promote greater understanding of sexuality in later life and facilitate efforts to improve the sexual expression, sense of self, and the quality of life of older adults both within the community and across aged care facilities.

Poster Number: EI 61
Quality Improvement of Resident Discharge Documentation and Associated Readmission Rates in the Geriatric Population
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**Introduction:** Unplanned hospital readmission for Medicare patients continues to be a significant economic burden upwards of $17 billion annually. A 10-year longitudinal study has previously shown that hospital readmissions among Medicare seniors were related to level of preadmission functional impairment. Despite this association, functional impairment assessment in the elderly population is seldom prioritized or documented at the time of discharge. Further, there is no system in place to compare pre and post hospitalization functional status which ultimately may provide additional insight into decomposition throughout hospitalization and risk of readmission. In additional to functional status, additional key components of discharge summaries continue to be absent such as: code status, discharge location, goals of care (GOC). This is imperative communication as discharge summaries are meant to act as the bridge for transition of care to outpatient primary care providers. With the continued utilization of Electronic Medical Records (EMR) and template based documentation in addition to an academic based hospital, there are many opportunities for intervention. Our study aim is to assess improvement in geriatric documentation content through the updated 2017 Intern/Resident Handbook which outline ideal components of a geriatric discharge summary.

**Methods:** Through literature review we identified several components which define an ideal discharge summary. These include: reason for admission, diagnoses, social history, end of life/goals of care (GOC) discussions, legal guardianship, hospital course, lines & tethers, physical exam, mental status exam, functional status, medication reconciliation, labs/imaging to be followed up at time of discharge, disposition, patient instructions, documentation of patient education and understanding, follow-up appointments, post discharge care provider contact information, resuscitation status at discharge.

Per the GW IRB office, the quality improvement and retrospective nature of this project required no IRB approval. Patients were identified as eligible if the Geriatrics service was consulted during the patient’s admission from any service (Medicine, Surgery, ICU, etc). Patients were excluded from the study if they expired during their hospital stay. Pre-intervention discharge summaries were analyzed from March–May 2017 with 73 patients meeting inclusion criteria and included in our pre-intervention analysis. Post intervention analysis will occur with the same patient eligibility criteria from October–December 2017 after the new GW Internal Medicine (IM) interns have an opportunity to acclimate and implement the model discharge summary provided in the handbook. Post intervention analysis will include: improvement in quality of discharge summaries, readmission rates, and whether or not the author of the discharge summary had completed their required Geriatric rotation at the time of documentation.

**Results:** Of 74 patients that were originally followed on the geriatric service, 2 were removed from the analysis as no discharge summary was available at time of data collection. Of the 74 remaining patients, 9 expired. Sixty-seven patients were included in the pre-intervention analysis.

Outpatient provider was included in 51/67 (76.1%); 23/67 (34.3%) included important social history. Physical exam was documented in 41/67 (61.1%) of discharge summaries.

Of special importance to our patient population is documentation of mental status and baseline functional level. Of the 67 discharge summaries, 29 (43.2%) documented mental status and 26 (38.8%) documented baseline functional level. Only 38/67 (56.7%) of discharge summaries documented disposition. Residents completing discharge summaries commonly wrote, “acute rehab or SAR” without further specification. Three of 67 (4.4%) discharge summaries provided contact information for outpatient providers.

Notably, 60/67 (89.5%) included inpatient medication changes. Of note, 31/67 (46.2%) summaries clearly documented in the discharge summary the important decision maker for the patient during hospitalization.

Geriatrics was consulted 21/67 (31.3%) of the time for goals of care discussions. These discussions were documented by the geriatric service in 19/21 of these cases and 17/21 were documented by the residents in the discharge summaries. A total of 48/67 (71.6%) patients had resuscitation status documented in their patient chart. Of these 48 patients, 39 (81.2%) writers included the resuscitation status in the discharge summary.

**Conclusions:** This quality improvement project adds to growing evidence regarding better documentation leading to fewer patient complications and maintenance of patient’s goals of care in the geriatric population. This evidence from the data supports a need for intervention aimed at the resident authors writing discharge summaries to improve transition of care for geriatric patients.

**Poster Number:** EI 62

**A Locality Level Clinical Re-Audit—Quality of Documentation in Patients Electronic Database Following an Initial Consultation in Virtual Clinics**

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**Introduction:** Virtual Clinics are a new way of working for documenting patient information following initial consultation. A previously completed audit identified significant variation between how individual consultants documented information in patient databases. It also showed that important information such as an assessment of risk was not always documented. Formal standards for documentation were therefore agreed following the initial audit and the aim was to complete a re-audit to compare current practice with the agreed standards. The ultimate aim of this re-audit is to improve the quality of information documented by community-based consultants and to make practice more safe and consistent.

**Methods:** 50 Virtual Clinic case assessments conducted by community based Consultants (25 cases in Sunderland and 25 cases in South Tyneside) were randomly selected from patient electronic base between the period of 5th of May to 31st of August 2017. Each documented case discussion in patient electronic database was searched to see whether the following standard information were documented:

I. Presenting Problem
II. Risk Assessment
III. Diagnosis (or working diagnosis)
IV. A management plan
V. Patient electronic database entry to be entered on the day of discussion
VI. Entry to be validated on the day of discussion

**Results:** There were still variation in how the community based consultants recorded information supplied by Community nurses. However compared to the initial audit in 2016, documentation was less varied and the structure was more consistent. As would be expected, presenting problems and management plans were again appropriately documented by all the consultants in all 50 cases. Risk assessments were better recorded compared to the initial audit but with 10 out of the 50 cases lacking a clear statement of the risks. In regards to recording of a diagnosis (or working diagnosis), only 5 of the 50 cases did not include this information which again is an improvement. In regards to the date of when entries were recorded, all consultant entered information on the same day. Only 1 consultant used a digital dictation team which resulted in 8 cases being validated after the entry date. The longest period between date of entry and validation was 26. All cases were validated.

**Conclusions:** It is expected that individual consultant would have different ways or styles of documenting information. However, a standardised Virtual Clinic template should address this issue and help ensure a uniform way of working between different consultants. Using a standardised case discussion template would help ensure that all important information are included and should also aid Community nurses when gathering information and communicating with consultants.

Our initial audit showed that important information such as an assessment of risk was not always documented in Virtual Clinics. Most consultants enter information manually into patient electronic databases during case discussions with Community nurses and this explains why in majority of cases information were entered on the same day. However, some consultants may prefer to use digital dictation which explains why some entries occurred later. Using a standard template may potentially reduce the time it takes to enter information into patient electronic databases thereby limiting the need to use digital dictation. Managers have emphasised the importance of validating consultant case discussions and it is reassuring to see that all entries were validated. In regards to the limitations of this re-audit, we could not assess the quality of the information documented by consultants for example risk assessments. Risks may have been discussed without a clear statement of risks being documented. There may have been legitimate reasons for late validations (for example Community nurses may have been asked to gather more information) which we have not included in this study.

**Recommendations**
The use of a standardised template should improve the consistency of information and reduce important omissions. The standardised template may include more details. It is recommended that all information are entered and validated on the day of the case discussion. The aim is for the case discussion template to become a formal standard locally and across this NHS Foundation Trust. We plan to re-audit after a year to see whether the recommendations have had a significant effect.

This research was funded by: N/A.
Introduction: Antibiotics are commonly used in older adults, especially in inpatient settings. CDC (Center for Disease Control and Prevention) reports 20–50% of antibiotic use is unnecessary or inappropriate in acute care hospitals in the United States. Diagnosing infections in older adults can be challenging, as classic signs of infection such as leukocytosis and fever may be absent and non-specific symptoms such as weight loss, anorexia, change in mental status and functional decline may be the only manifestations. Clinical assessment is more challenging in patients with significant cognitive deficits and in presence of delirium. However, lack of data regarding the prevalence of and treatment for infections in acute geriatric psychiatric units (GPU) motivated us to initiate this project.

Methods: This study was conducted in a 22-bed GPU in a community-based teaching hospital, covered by 4 geriatric psychiatrists, 1 hospitalist and 1 nurse practitioner. Data were collected by retrospective chart review of all admissions from February 1, 2016 to January 31, 2017. Patients living independently were evaluated using clinical criteria according to guidelines published by the Infectious Diseases Society of America (IDSA). For patients residing in long-term care facilities, the McGeer criteria were used for diagnostic purposes. The Epic electronic record and paper documents from referring facilities were thoroughly scrutinized to find supporting data (medication administration record, provider notes, lab results, imaging studies, and vitals) for the corresponding diagnosis. Appropriateness of empiric antibiotic therapy was determined by concordance with antibiotic guidelines based on our institutional antibiogram and recommendations from the Antibiotic Stewardship Team. Antibiotic selection, dose, duration of therapy, allergies and renal function were recorded.

Results: Among 427 patients, 131 were identified from review of the Medication Administration Record (MAR) as having an antibiotic prescribed. Sixteen patients were excluded from analysis; 14 never received an antibiotic and 2 receiving topical therapy did not have sufficient documentation; 115 individuals (26.9%) were included in the study population. The most common diagnosis was urinary tract infection (53.1%), followed by skin and soft tissue infections (SSTI) (26.1%) and pneumonia (9.6%). Only 19.7% (n=12) of the patients diagnosed with a UTI met established criteria; 11.5% of the patients had asymptomatic bacteriuria. A contaminated urine specimen (> 2 species) due to suboptimal collection was common (26%). The most common classes of antibiotics used for UTI were fluoroquinolones (34.4%) and sulfonamides (32.8%), whereas both fluoroquinolones (25%) and macrolides (25%) were commonly used in respiratory tract infections. Topical agents (70%) were common for SSTI. Choice of empiric antibiotic therapy was inappropriate in 80% of the patients diagnosed with a UTI, 43.3% with skin & soft tissue infections and 25% with respiratory tract infections. Half of the patients (50%) with an established UTI received inappropriate empirical therapy. Out of twenty-six patients (22.6%) with altered mental status, 18 (69.2%) were inappropriately diagnosed and treated for a UTI.

Conclusions: A higher risk of infections in older adults, diagnostic challenges, cognitive deficits, and several others factors may bias providers toward overdiagnosing and treating infections in GPU. There is an opportunity for Antibiotic Stewardship Teams and GPU providers to collaborate in order to implement diagnostic criteria and improve antibiotic prescribing for established infections. Fluoroquinolone use should be discouraged for the empiric treatment of UTIs given the frequency of resistance and minimized for pneumonia due to their adverse event profile. This review supports the need for improving the utilization of urine cultures and antibiotic stewardship in GPU. It is essential that this vulnerable patient population benefit from the expertise of programs that are in place in acute care hospitals. We encourage geriatric psychiatrists to collaborate with pharmacy and infectious diseases physician leads in their institution to implement diagnostic criteria for common infections in GPU and to ensure optimal antibiotic use based on local susceptibility data.

Inappropriate Diagnosis resulting in antibiotic treatment

<table>
<thead>
<tr>
<th>Type of Infection</th>
<th>Failed to meet diagnostic criteria</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTI (Urinary Tract Infection) n=61</td>
<td>49</td>
<td>80.3</td>
</tr>
<tr>
<td>RTI (Respiratory Tract Infection) n=16</td>
<td>04</td>
<td>25.0</td>
</tr>
<tr>
<td>SSTI (Skin &amp; Soft Tissue Infection) n=30</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Others* n=17</td>
<td>04</td>
<td>23.5</td>
</tr>
</tbody>
</table>

*Others- Clostridium difficile, gingivitis, tooth abscess, conjunctivitis, blepharitis, Corneal scar, prophylactic use, late latent syphilis, neurosyphilis.
### Characteristics of patients diagnosed with Urinary Tract Infection (UTI)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate Diagnosis of UTI (n=61)</td>
<td>12</td>
<td>19.7</td>
</tr>
<tr>
<td>Inappropriate Urine Culture (n=61)</td>
<td>41</td>
<td>67.2</td>
</tr>
<tr>
<td>Asymptomatic Bacteriuria</td>
<td>07</td>
<td>11.5</td>
</tr>
<tr>
<td>Asymptomatic Bacteriuria with pyuria</td>
<td>06</td>
<td>9.8</td>
</tr>
<tr>
<td>Urine Culture (n=58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Growth</td>
<td>10</td>
<td>17.2</td>
</tr>
<tr>
<td>Contamination</td>
<td>15</td>
<td>25.9</td>
</tr>
<tr>
<td>Positive</td>
<td>25</td>
<td>43.1</td>
</tr>
<tr>
<td>Not sent</td>
<td>03</td>
<td>-</td>
</tr>
<tr>
<td>Inappropriate choice of empiric antibiotics (n=68)</td>
<td>54</td>
<td>79.4</td>
</tr>
</tbody>
</table>

UC was not sent for 3 patients. Pyuria defined as WBC >10/ HPF in urine, Asymptomatic bacteriuria defined as colony count > 100k without symptoms and signs of UTI, Asymptomatic bacteriuria with pyuria defined as WBC > 10/ HPF with colony count >100k in a non-contaminated sample of urine, Contamination- growth of ≥2 morphotypes, Positive urine culture-colony count > 100k, growth of no more than 2 organisms in any quantity, Note: 61 patients were diagnosed with UTI and were on 68 different antibiotics.

This research was funded by: None.

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**Poster Number:** EI 64  
**Prescriber Compliance with the Pennsylvania Prescription Drug Monitoring Program (PDMP) for Sedative/Hypnotic Prescriptions and the Effects on Documentation of Sleep Symptoms in Elderly Outpatients in the VA Health System**

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**Introduction:** Sleep complaints are common in the elderly (age 65 years and older) population and sedative/hypnotic drugs are sometimes prescribed to treat sleep disturbances. However, this class of drugs have associated risks in the elderly, including falls, cognitive impairment, paradoxical agitation, and interactions with adverse drug-drug interactions. In Pennsylvania, the Prescription Drug Monitoring Program (PMDP) was implemented on January 1, 2017 “to help prevent prescription drug abuse and protect the health and safety of our community.” **Objectives:** To determine whether the PMDP Portal (PMPAWARxE): (1) is being routinely checked online by prescribers; (2) has had an effect on documentation of sleep complaints in patients who receive prescriptions for sedative/hypnotic drugs. **Hypothesis:** There would be more documentation of the need for benzodiazepine prescriptions after the PDMP portal implementation. Also, there would be no change in documentation for other non-benzodiazepine hypnotics such as zolpidem.

**Methods:** **Sample:** The sample for this study was identified from the VA’s Psychotropic Drug Safety Initiative (PDSI) pharmacy database, which captured refilled prescriptions. Inclusion criteria study sample were: (1) veterans 65 years of age or older; (2) received care in the Corporal Michael J. Crescenz Veteran Affairs Medical Center in Philadelphia, PA and its affiliated Community Based Outpatient Clinics; (3) were prescribed hypnotics that are FDA-approved for the treatment of insomnia. **Procedures:** PDSI was specifically searched for scheduled sedative/hypnotic drugs including benzodiazepines (temazepam, triazolam, quazepam, flurazepam, estazolam) and non-benzodiazepine drugs (zolpidem, zaleplon, zopiclone). Prescribers were classified as primary care, behavioral health, or other providers. The VA Computerized Patient Records System (CPRS) notes were reviewed before the implementation of PDMP Portal (4/1/16 – 12/31/16) and afterwards (1/1/17 – 8/31/17), and evaluated for: (1) documentation that PMPAWARxE was checked within 24 hours of sedative/hypnotic prescription; (2) documentation of the need/indication for sedative/hypnotic use. Latter documentation was evaluated based on three criteria: (1) any mention of sleep complaints/disorders that would serve as a rationale for a prescription; (2) any mention of sleep symptoms that are included in the Pittsburgh Sleep Quality Index (PSQI); (3) sleep symptoms that would have been sufficient to score >5 on the PSQI, indicating the presence of clinically significant sleep symptoms.
Results: A total of 118 veterans were found in the PDSI treated during the study period. Of the veterans that met inclusion criteria, 26 received prescriptions for temazepam, and 19 received prescriptions for zolpidem. None of the other above FDA-approved drugs were found in the PDSI for the study period. All 45 charts in the final sample were reviewed for prescriber specialty: 35 (77.8% of the sample) were primary care providers, 8 (17.8%) were behavioral health providers and 2 (4.4%) other providers. Of the veterans with an active benzodiazepine prescription, 9 CPRS notes (34.6% of the sample) documented checking PMPAWARxE within 24 hours. Review of documentation revealed 28 (62.2%) charts listed some mention of sleep as a problem (eg: insomnia, dyssomnia, sleep disorder/disturbance), 15 charts (33.3%) documented at least one sleep symptoms found in the PSQI. Of all the veterans in the sample who received a temazepam prescription, 15 (57.7%) veterans had a prescription for temazepam had at least one sleep complaint listed as a problem. Of all those that received a zolpidem prescription, 13 (68.4%) veterans had at least one sleep complaint listed as a problem. None of the charts provided enough documentation to derive a PSQI score >5. A comparison of CPRS notes after the implementation of PMPAWARxE revealed 8 (17.8%) CPRS notes that had more documentation to support a prescription renewal. Of the 8 records with more documentation to support continued sedative/hypnotic drug use, 7 out of 8 veterans received a temazepam prescription (26.9% of total temazepam renewals), and 1 out of 8 veterans received zolpidem (5.2% of total zolpidem renewals).

Conclusions: Prescriber compliance was limited, with less than half of records being checked for benzodiazepine prescriptions with the PDMP Portal. Despite limited compliance, as expected, we did not find more extensive documentation for zolpidem prescriptions, however the numbers are too small to draw any conclusions for temazepam prescriptions. Comments: Strengths of study include a detailed review compared to a standardized instrument for sleep assessment (PSQI). Limitations of this study include the small sample size and unknown generalizability as the sample was composed of veterans at a single medical center. Specific suggestions are discussed to improve prescriber compliance and documentation related to sleep complaints in elderly outpatients.

Social Work Shortage; Can a Resource Packet Bridge the Gap in Care?
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Introduction: Background: Geriatric psychiatry is a subspecialty that optimizes mental health treatment of older adults; a growing population who require many services beyond the typical scope of an adult psychiatry clinical practice. Emphasizing the use of a biopsychosocial approach to meet the unique physical, emotional, and social needs of older adults has been proven as an effective strategy in delivering quality healthcare to older adults. However, the demands of providing this comprehensive approach to healthcare often requires the support of a multi-disciplinary team. Currently, the UT Health San Antonio Geriatric Psychiatry Clinic is staffed with geriatric psychiatrists and resident psychiatrists only; social work support is not available in this location. As a result, an observed lack of readily available resource information has, at times, limited a provider’s ability to deliver effective psychosocial interventions. Implementing a resource packet to address this disparity has been proposed. Objective: To perform a needs assessment survey for the UT Health San Antonio Geriatric Psychiatry Clinic with the aim of identifying resource information deficiencies pertinent to geriatric psychiatry patients and their caregivers. Needs assessed through this survey will be used to impart a user-friendly tool (“GERIpacket”) to readily access resource information. This tool will augment psychosocial interventions specific to psychiatric care for older adults, as well as mitigate the clinic difficulties associated with lack of social work support. Methods: The quality improvement project is conducted following the model of a Needs Assessment. Our project is defined by four distinct phases: 1.) Submission of proposed project to Institutional Review Board for approval, 2.) Create and administer survey instrument, 3.) Analyze data to identify social resource needs, 4.) Impart user-friendly tool to provide identified needs. The needs assessment is based out of an academic, outpatient geriatric psychiatry clinic located in a large, urban city in the United States. To be considered a survey participant, patients must be at least 65 years or older and caregivers must be at least 18 years or older. Participants must be present in the clinic to complete the assessment. Participants may only complete one survey during the 8-week period of data collection. The goal of the project is to obtain at least 80 survey participants within this timeframe. Participants are informed that this quality improvement study investigating the population’s knowledge of, and need for, specific resource information pertinent to their mental health care. The survey instrument will be an anonymous, self-report questionnaire that includes a measurement of demographics to ensure the target population is captured. The questionnaire is divided into four resource categories to include: mental health services, senior activities, senior housing, and
professional services serving seniors. For each resource category, participants are asked to assess the resources’ current status of availability vs. its ideal status of availability. Furthermore, the project aims to collect data concerning the perceived desirability of specific community resources within the four resource categories being surveyed. This data will provide a unique contribution to the development of the resource packet.

**Results:** Phase one and two of the needs assessment are completed. Based on needs expressed by both patients and caregivers attending appointments at the UT Health Geriatric Psychiatry clinic, and information requested by staff, we developed the GERIpacket (Geriatric Education and Resource Information packet). While phases 3 and 4 remain ongoing, preliminary stages of the GERIpacket are being constructed.

**Conclusions:** We conclude that the assessment of social resource needs for geriatric patients and their caregivers is a critical step in providing high quality psychiatric care, especially in clinics without social work or case management support. The ongoing nature of phases three and four limits our ability to draw conclusions stratifying the most common social resource needs of this target population at the time of this abstract submission.

**Inclusion Criteria**

If participant is a patient, must be 65 years or older  
If participant is a caregiver, must be 18 years or older  
Must be attending regular intake or follow-up appointment at UT Health San Antonio Geriatric Psychiatry clinic  
Able to provide written, informed consent  
Able to read and write English

**Poster Number:** EI 66  
**Erratic Lithium Levels Following Vertical Sleeve Gastrectomy: A Case Report**  
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**Introduction:** This is a case of a 59 year-old woman with a psychiatric history of Bipolar I disorder admitted to the inpatient service for acute mania in the context of medication non-adherence. Prior to this admission the patient had been following up in the outpatient service of the same hospital for about 20 years and had been psychiatrically stable until recently. The patient is a heavy smoker on nicotine replacement, and blood alcohol levels and urine toxicology screens were consistently negative. Significant stressors included death of her husband and her father two years ago, as well as loss of employment due to an accident one year ago.

**Methods:** Patient treatment was initiated with lithium carbonate 600 mg BID and haloperidol 2 mg BID. Serial lithium levels were monitored throughout the patient’s admission. Interestingly, lithium levels increased from less than 0.2 meq/l to 1.42 meq/l after nine days of administration of lithium 300 mg in the morning and 600 mg at night time. All serum samples were obtained before lithium administration and greater than 10 hours of last dose. The patient’s glomerular filtration rate was consistently within normal limits and the patient was not taking an ACE inhibitor or NSAID. On daily examination, the patient did not show any signs or symptoms of lithium toxicity. Upon further history taking, and corroboration as per records obtained from the operating hospital, it was learned that the patient had undergone sleeve gastrectomy for weight reduction five years prior. Subsequently lithium carbonate dose was decreased to 300 mg BID and lithium was changed into an extended release formulation and after nine days the level decreased to 0.72. No other significant changes in lithium levels were observed during the remainder of the patient’s inpatient stay.

**Results:** The suspected mechanism which caused lithium toxicity in this patient included the possibility of increased stomach pH following sleeve gastrectomy, which may facilitate the deprotonation of carbonate salt and result in an increased dissolution of lithium ions. Other factors which are poorly understood in patients who have undergone bariatric surgery include the type of formulation used, tablet or liquid, or extended release formulation, reduction in surface area, changes in transit time and reduction in food ingestion. Other factors which may influence serum lithium levels include gastrointestinal complications such as diarrhea which may cause hemoconcentration and dehydration and increased serum lithium levels.

**Conclusions:** Further studies are required as there is limited literature on comparable conditions. Considering that some patients who undergo bariatric surgery have mental illness and are on psychotropic medications, it is important to keep in mind the change in the pharmacokinetics of various drugs including lithium which may subsequently cause adverse effects.
Brief Behavioral Treatment for Insomnia in Older Veterans with Late Life Treatment Resistant Depression
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2University of Pittsburgh School of Medicine, Pittsburgh, PA
3VA Beckley Healthcare System, Beckley, WV

Introduction: Brief Behavioral Treatment for Insomnia (BBTI) is an effective treatment of insomnia in older adults. Behavioral treatments for insomnia can improve depression. However, it is unknown if BBTI is feasible or has an effect in patients with insomnia and late-life treatment resistant depression (LLTRD). The aims of this study were two-fold, to test: 1) the feasibility (defined by acceptability and retention rates) of BBTI and 2) the preliminary effect of BBTI on symptoms of insomnia and depression.

Methods: Eleven older Veterans with LLTRD and insomnia were recruited in a randomized control trial to receive immediate (4-weeks of BBTI followed by 3-weeks of phone call check-ins and a final in-person 8-week assessment) or delayed (3-weeks of treatment as usual [wait-list control] followed by 4-weeks of BBTI and a final in-person 8-week assessment) BBTI. The primary outcome measures included the Patient Health Questionnaire (minus the sleep item) and the Insomnia Severity Index.

Results: BBTI was found to be feasible in older Veterans with insomnia and LLTRD; all participants recommended BBTI and retention rates were 90.9%. Preliminary data suggest there was no difference in treatment effect between the immediate BBTI and delayed BBTI groups at week 4. After both groups (immediate and delayed) received BBTI, improvements were seen in both insomnia (d = 1.06) and depression (d = 0.54) scores.

Conclusions: BBTI is a feasible treatment for insomnia in older adults with LLTRD. BBTI may be an effective adjunctive treatment depression. Larger well-powered trials are required to confirm these preliminary findings.

This research was funded by: This work was supported by NIMH T32 MH019986 and VA Pittsburgh MIRECC Pilot Project Funds.
Behavioral Activation Therapy for Older Adults with Depression: A Systematic Review of Effectiveness

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Stanford University, Palo Alto, CA

Introduction: Numerous challenges—e.g., medication side effects, reluctance to take medications, cognitive impairment—continue to limit the effective treatment of depression in older adults. In addition, many older adults with depressive symptoms lack access to a mental health provider, yet could potentially benefit from brief, nonpharmacologic interventions. In particular, older adults frequently experience social isolation, disability, avoidance of feared activities, and reduced engagement in pleasurable activities, factors that can precipitate or exacerbate depressive symptoms. “Behavioral Activation” (BA) is a brief, effective, empirically-validated, first-line treatment for depression of mild-to-moderate severity. At the core of BA are patient-specific activation strategies that focus on helping the depressed individual to: 1) decrease avoidance and depression-fueling behaviors (e.g. physical inactivity, social isolation, time spent ruminating); and 2) increase the number and types of pleasant activities and engagement strategies (e.g. exercising, spending time with family and friends, attending and engaging in community-based activities). We sought to identify, evaluate, and synthesize the results of randomized studies of BA in older adults with depressive symptoms.

Methods: We searched PubMed, PsycINFO, EMBASE, World of Science, and Cochrane Reviews to identify journal articles published from January 1970 to September 2017, using the following keywords and MESH combinations: behavio(u)ral activation, depression, elderly, older adults, geriatrics, randomized clinical trials, activity scheduling, and pleasant activities. Titles and abstracts were reviewed for adherence to inclusion criteria. Studies were included if they enrolled adults ≥ 50 years old who had clinically diagnosed depression or who scored above a pre-defined threshold on a validated scale of depressive symptoms and were randomized trials with two or more arms (one of which had to be BA; the other arm could be another intervention or a control arm). Studies were excluded if BA was described solely as part of a combination therapy or solely as a component of cognitive behavioral therapy, or if the study was focused primarily on dementia caregivers.

Results: A total of 16 studies met our inclusion criteria. Our preliminary findings were as follows: A total of 1733 participants were included. Studies (n=11) were conducted in community or outpatient settings, assisted living facilities (n=2), or inpatient psychiatric units (n=3). Most studies compared BA to a waitlist control or treatment as usual, while others (n=5) compared BA to other forms of therapy (cognitive therapy, time limited psychodynamic psychotherapy, short term insight oriented relational therapy). The number of sessions varied from 4 to 20. The studies used diverse outcome measures to assess depressive symptoms (i.e., BDI, GDS, HRSD). The majority of the studies found that BA was associated with improvement in depressive symptoms at post-treatment and at follow ups (1 month, 3 months and 1 year). However, the studies were limited by small sample sizes, limited detail about the nature of the BA intervention sessions, and limited measurement of the putative mechanism of action—i.e., behavioral activation itself.

Conclusions: While the identified studies suggest that BA appears to be effective and feasible for older adults with mild to moderate depressive symptoms, further work is needed to determine whether the effects of BA are durable, to identify mechanisms of action of the interventions, and to promote wider dissemination of this nonpharmacologic intervention to the many older adults who lack ready access to mental health care.

This research was funded by: N/A.
Geriatric Psychiatry Fellowship Website Evaluation
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Introduction: With only ~50 fellows per year, it is a general consensus that recruitment for geriatric psychiatry fellowships is a perpetual challenge for program directors. Websites are one avenue the profession uses to recruit applicants. However, it is our impression that residents are generally unimpressed by the information these websites share. The purpose of this study was to evaluate the content of geriatric psychiatry fellowship websites in providing wanted information to potential applicants.

Methods: Surveys assessing geriatric psychiatry fellowship website needs of the American Association for Geriatric Psychiatry (AAGP) Member in Training (MIT) caucus and those of a local program were distributed. A website evaluation scale was created based on trainee feedback. ACGME accredited geriatric psychiatry fellowships were identified and their websites were evaluated.

Results: Only 21% of trainees surveyed found that many websites had been helpful in informing their fellowship decisions. We identified 12 criteria to evaluate geriatric psychiatry fellowship websites. ACGME lists 59 accredited fellowships of which 58 have a dedicated website. The median score for our evaluation tool (range 0–24) of fellowship websites was 10 (range 4–20). The three most frequently observed website features requested by residents included 1) rotation site description with link to sites (59% of websites), 2) directions for how to apply to the fellowship with link to application (57%), and 3) a written program narrative describing distinguishing characteristics of the fellowship (52%). The least frequently observed website features were 1) pictures of residents having fun in non-professional settings (2% of websites), updated information about current and recent fellows (3%), and 3) call frequency and moonlighting opportunities (7%). Only 50% of websites listed the names and contact information for their training director and coordinator.

Conclusions: Surveyed trainees clearly communicate the importance of fellowship websites for informing their fellowship decisions. However, our survey of program websites also clearly demonstrates that many programs can improve the recruitment potential of their websites. Moreover, the field in general should be concerned about the web presence of the profession. Website improvement may not only improve recruitment for individual programs, but may also improve recruitment for the field as a whole.
Decreased Default Mode Network Functional Connectivity in Alzheimer’s Disease Patients with Delusions

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**Introduction:** Neuropsychiatric symptoms (NPS) are highly prevalent in Alzheimer’s disease (AD). One of the most devastating NPS is the presence of delusions, which is estimated to occur in one in every three AD patients. Delusions are associated with many adverse outcomes, including greater cognitive and functional impairments, a more rapid decline, increased caregiver burden, and higher mortality rates than patients without delusions. Studies that investigated the brain changes associated with delusions typically focused on regional structural or functional differences, but there is evidence that resting-state networks that provide an understanding into the macroscopic architecture of the brain may be more sensitive to pathological processes. In a previous study, we found that AD patients who developed delusions showed increased structural atrophy in many regions corresponding to the default mode network (DMN), one of the most well studied resting-state networks to date. Alterations in the DMN has been implicated in a variety of neuropsychiatric conditions, including AD, schizophrenia, and bipolar disorder, as well as NPS such as depression and anxiety. However, there have not been any studies looking at the resting-state patterns in association with delusions in AD. The current study aimed to build on previous findings to investigate the resting-state connectivity using functional magnetic resonance imaging (fMRI). We hypothesized that AD patients with delusions will show decreased DMN connectivity compared to AD patients without delusions.

**Methods:** 30 AD patients underwent fMRI scanning at St. Michael’s Hospital, including 15 patients with delusions and 15 comparable patients without delusions. Delusional status was based on the Neuropsychiatric Inventory (NPI), and global cognition was measured using the Montreal Cognitive Assessment (MoCA). A dual-regression component modeling approach was used to identify brain networks accounting for the greatest variability. The DMN was identified based on regions in the literature, and was selected for post-hoc analysis to identify differences between delusional and non-delusional patients. A two-samples t-test with False Discovery Rate (FDR) correction was used.

**Results:** There were no significant demographic or cognitive differences between the delusional and non-delusional groups. The DMN was reliably activated in this sample, consisting of activation of the bilateral precuneus, medial prefrontal cortex, bilateral medial temporal lobes, and bilateral inferior parietal lobules. Post-hoc analysis of the groups showed that the delusional group showed significantly reduced connectivity of the left inferior parietal lobe with the rest of the DMN compared to patients without delusions.

**Conclusions:** The current study used functional resting-state analysis to investigate DMN connectivity patterns in AD patients with delusions compared to those without delusions. We found that delusional patients showed reduced connectivity of the DMN, specifically the disintegration of the left inferior parietal lobe. The inferior parietal lobules and the DMN are believed to be involved in a wide range of cognitive functions, including self-monitoring, mind-wandering, autobiographical memory retrieval, and inferring other’s thoughts and intentions (i.e. Theory of Mind). Hypoconnectivity of the DMN may impair these important cognitive functions, and result in delusional thinking. For example, decreased ability to infer others’ mental states could result in delusions of persecutory, the false belief that one is being targeted and harmed. Abnormal DMN connectivity has been linked to many other psychotic disorders, including schizophrenia and psychosis in bipolar disorder. It is possible that there is a unifying model of psychosis among these disorders, but the parallel between them is only speculative. In conclusion, our findings suggest that breakdown in DMN connectivity may contribute to delusions in AD. This specific pattern of DMN disconnectivity may serve as a biomarker of delusions to be used for developing treatment strategies, such as network modulating therapies.
Using FMRI in Patients with Early Alzheimer’s Disease

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2University of Toronto, Toronto, ON, Canada

**Introduction:** Existing pharmacological treatments for Alzheimer’s Disease (AD) have shown to provide only modest benefits to the patient. Music-based interventions have been demonstrated to improve behavior and cognition in AD. Additionally, these interventions have minimal risk, are inexpensive, and highly enjoyable for the patient. Moreover, music has proven to have a powerful effect on cognitive reserve, or the brain’s ability to compensate for damage. No study has used neuroimaging to visualize brain changes pre- and post- a music listening intervention (MI) with AD persons. We sought to determine the difference in brain activation patterns during familiar and unfamiliar music listening in this population, whether daily exposure to familiar music can alter functional brain connectivity and cognitive outcomes in early AD, and whether history of musicianship confers greater benefits.

**Methods:** We recruited N = 4 musicians (AD+M) and N = 5 non-musicians (AD-M) with Mild Cognitive Impairment or early AD (other dementias excluded). AD+M must have played music professionally and/or received formal musical training. Potential subjects were assessed clinically by a behavioural neurologist or geriatric psychiatrist to validate disease diagnosis. Prior to participation, participants were asked about their music listening preferences and selections known to them for at least 20 years, as well as their music listening habits. For the study procedures, participants were asked to complete a three-week at-home MI where they listened to music for one hour per day. Each participant was given an easy-to-use MP3 player with their favourite music on it to listen to for the duration of the MI (validated by a study informant). Participants visited St Michael’s Hospital twice, once before MI initiation and at MI completion. At each session participants underwent cognitive testing (Montreal Cognitive Assessment [MoCA]) and an MRI, including a structural scan as well as resting state and task-based fMRI. During the task, participants listened to long-term favorite music (obtained from musical preferences) and unfamiliar (newly composed) music. We generated activation maps of familiar and unfamiliar music in AD+M and AD-M and assessed regions of significant overlap to establish a common Music Network (MN). We then utilized our resting state data to calculate the change in activation (post-pre MI) at each voxel and fit a group-level general linearized model (GLM) to measure the main effect of intervention and interactions within patient groups. We measured mean connectivity values between nodes of the MN and compared them between AD+M and AD-M and pre and post treatment.

**Results:** Utilizing our task-based data, a common MN was found in the left cerebellum, bilateral temporal lobes, left inferior frontal gyrus, right basal ganglia, and bilateral superior marginal gyrus. However, familiar music alone activated the brain more bilaterally and extensively in emotional processing and frontal areas, including the bilateral cerebellum, inferior frontal gyrus, and putamen. Additionally, familiar music activated the precentral gyrus and supplementary motor area. For our MN, we included all voxels that were significantly active during music tasks (at p < 0.005 significance), and measured averaged intranetwork functional connectivity during the resting-state scan, for each participant, pre- and post-intervention. AD-M showed a significant intervention effect (p < 0.001) for both the combined MN and familiar music only, while AD+M showed non-significant effects (p = 0.37). However, for the familiar MN, while the AD+M group showed higher average functional connectivity pre-MI, the AD-M group showed a greater average increase in mean connectivity from pre- to post-MI. These findings suggest benefits of MIs, particularly for non-musicians. Consistent with the neuroimaging findings, AD-M also showed an increase in mean cognitive scores on the MoCA while AD+M did not.

**Conclusions:** Our findings provide evidence that familiar music activates an extensive bilateral network in AD persons consisting frontal, prefrontal emotional processing areas. These activation patterns give preliminary insight into the compensatory mechanisms by which music may modulate emotional and executive networks in individuals with AD. Our post MI investigation showed that a short MI can alter functional brain connectivity and cognitive outcomes in early AD, with a particular advantage to non-musicians. This may be due to a ceiling effect on musicians, suggesting the importance of novelty in intervention. However, it should be noted AD-M also showed a greater rate of bilingualism and lower mean age. Increased understanding of how music exposure can protect the brain from AD will lay the empirical foundation for the development of inexpensive, enjoyable, and reliable therapeutic interventions that will target specific brain networks, which could lead to improved clinical care and treatment outcomes for patients and their families. (Tables 1 and 2)

*This research was funded by:* Canadian Consortium for Neurodegeneration in Aging (CCNA) grant.
Reduction of Anxiety and Benzodiazepines in 10 Days during a Medical Residential Depression Program

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Introduction: Benzodiazepine weaning can be difficult due to tolerance and dependence. As benzodiazepines are decreased many times anxiety increases. Progress in the weaning of benzodiazepine and anxiety was observed in a 10-day depression and anxiety recovery residential program.

Methods: From 2007, n = 564 patients finished the 10-day medical program that took place in Ardmore, Oklahoma and Weimar, California. Data was taken from n = 129 geriatric participants. The average age for the n = 129 patients studied was 64.9 years (SD 7.7). All participants had psychological testing before and after the 10-day program using the Depression and Anxiety Assessment Test (DAAT), Beck Depression (BDI) and Beck Anxiety Inventory (BAI). Before starting the ten-day program, patients decreased benzodiazepines to 2 mg or less a day.

At the start of the 10-day program, the dosages of benzodiazepine were reduced to half and patients were offered lavender oil to help with anxiety. If anxiety was too high, doses of clonazepam were started. After the program, patients were given instructions on how to reduce further their clonazepam intake in the home setting while remaining in contact with the physicians from the 10-day program. This program used intensive lifestyle interventions such as plant-based diet, exercise, rest, hydrotherapy, light therapy, cognitive behavioral therapy, and chaplaincy. A board certified physician follow up each patient to monitor and modify their treatment if need it.

Results: At baseline regarding benzodiazepine usage, there were n = 9 patients taking alprazolam, n = 4 clonazepam, n = 1 flurazepam, n = 18 lorazepam, n = 1 oxazepam, and n = 3 temazepam. At baseline mean DSM Anxiety level was 9.8 (moderate) SD 4.1 and Beck Depression Anxiety was 16.6 (moderate) SD 6.1. After the ten-day program, the amount of patients taking benzodiazepines were n = 1 on alprazolam, n = 10 on clonazepam, n = 2 on flurazepam, n = 5 on lorazepam, n = 1 on oxazepam, and n = 1 on temazepam. The number of patients on clonazepam increased because this benzodiazepine was substituted to wean off of the other benzodiazepines as it is easy to decrease later on.

Conclusions: The 10-day residential program, even though its primary focus is not to decrease pharmacological agents, is an effective way to decrease short acting benzodiazepines while improving mental health. Long-term follow-up is being conducted.

This research was funded by: Self Funded.
**Poster Number: NR 4**

**8-Week Depression and Anxiety Program Reduces Benzodiazepine Usage among Geriatrics**

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**Introduction:** Benzdiazepines are helpful short-term medications for treating insomnia, anxiety, and depression, but have high potential for long-term abuse among patients suffering from these symptoms. This study documents the effects of a depression program on reduction of benzodiazepine usage in participants.

**Methods:** Data was collected from \( n = 2,825 \) senior participants of an 8-week depression recovery program. Each participant completed the Nedley DSM-Depression test, a validated questionnaire that assesses anxiety, depression, emotional-quotient, demographics, and benzodiazepine usage, at baseline and upon program completion. During the program, participants were educated towards a lifestyle approach in the treatment of depression and anxiety using exercise, thought control, plant-based diets, sleep hygiene, and spiritual resources. In addition, participants met once a week during the 8-weeks for a 2-hour program which included a 45-minute DVD presentation followed by a small group discussion.

**Results:** Mean age for the participants was 64.7, SD = 7.2, \( n = 1,098 \) (38.9%) were female and \( n = 1,727 \) (61.1%) were male. From the participants, \( n = 374 \) (13.2%) were using benzodiazepines and reported a baseline depression average of 15.7 (SD = 7) and anxiety average of 10.1 (SD = 4.3). Participants who did not report benzodiazepine usage (\( n = 2,451 \)) had a baseline depression average of 10.8 (SD = 7.2) and anxiety average of 6 (SD = 4.3). Upon completion of the program, \( n = 148 \) (39.6%) of the group reporting benzodiazepine usage had discontinued its use and reported markedly lower depression average of 6.1 (SD = 5.9) and anxiety average of 3.5 (SD = 3.7). The 60.4% (n = 226) who continued benzodiazepine use till the end of the program reported a depression average of 9.5 (SD = 6.6) and anxiety average of 6.8 (SD = 4.1).

**Conclusions:** This study shows the effectiveness of an 8-week depression and anxiety program in improving overall depression and anxiety scores for those using benzodiazepines and results in reducing benzodiazepine usage. Further studies should be done to assess how changes continue in long-term studies.

This research was funded by: None-Self Funded.

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**Poster Number: NR 5**

**Age and Sex-Related Differences in Risk Factors for Elderly Suicide: Differentiating between Suicide Ideation and Attempts**

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**Introduction:** As of 2010, the Korean suicide rate was 31.2 per 100 thousand people, which was the highest among the Organization for Economic Cooperation and Development (OECD) member nations [1]. Although many risk factors for suicide are known, it is difficult to predict actual suicide attempts in the elderly. This is because a complicated set of factors affect suicide in the elderly. Previous research has been limited in several ways. First, the definition of the elderly has often been ambiguous. Second, few studies have separated the risk factors for suicide ideation versus actual attempts. The purpose of this study was to comprehensively analyze the socio-demographic factors that influence suicide ideation and attempts in the elderly, according to age and sex, that influence suicide ideation and attempts in the elderly.

**Methods:** The high suicide-risk group was selected based on their scores on the 15-item short form of the Geriatric Depression Scale (GDS-15). The total number of subjects was 93,151, of whom 8,441 belonged to the high suicide-risk group (2,064 male; 6,377 female). Following this identification, we investigated their socio-demographic information, health status, and depressive symptoms, which might have influenced their suicide ideation and attempts. We performed logistic regression analysis to find the factors that influenced suicide ideation and attempts by age and sex.

**Results:** Residence in an urban area was identified as a risk factor for both male and female elderly in their 60s and 70s and female elderly in their 80s. Marital status showed a different influence on suicide ideation depending on age and sex. A negative perception of one’s own health status was a significant risk factor that increased the likelihood of suicide ideation in all ages, except the female elderly in their 60s. We performed binary logistic regression, adjusting for age and depressive symptoms, to find factors that influenced actual suicide attempts in subjects with suicide ideation. In the male elderly, no factors were
identified that influenced suicide attempts; however, in the female elderly, living in an urban area and a negative perception of one’s own health were significant risk factors.

**Conclusions:** This study revealed that factors known from previous studies to influence suicide ideation in the elderly, including residence area, separation from a spouse, education level, drinking, and religion, change in their influences in the elderly in their 70s and 80s. On the other hand, a negative perception of one’s own health status was a significant risk factor that encompassed most ages and sexes. Previous studies reported that a negative perception of one’s own health is highly correlated with emotional problems [2] and the risk of suicide increases considerably when patients perceive their health conditions as a burden to others [3]. Therefore, regardless of age, it is important to consider how the elderly subjectively perceive their own health status when assessing of suicide risk. In conclusion, we suggest that understanding and assessing suicide risk in the elderly should consider characteristics of age and sex.

This research was funded by: None.

**Poster Number: NR 6**

**Coexisting Frailty and Depression in Older Veterans: Effects on Health Care Utilization**

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**Introduction:** Frailty is a state of vulnerability to stressors resulting in higher morbidity, mortality and healthcare utilization in older adults. Older adults with frailty are high utilizers of healthcare including hospitalizations, emergency room visits and nursing home placement. Depression and frailty often coexist in older individuals suggesting a bidirectional relationship that may further increase the effects of each individual condition on clinical outcomes and healthcare utilization. The purpose of this study was to determine the effects of concurrent frailty and depression on healthcare utilization of older Veterans at a VA medical center.

**Methods:** Participants and Setting: Veterans 65 years and older using the Miami VA Medical Center for outpatient visits. Study design: Prospective cohort study.

Outcomes and Measures: We collected socio-demographic information (age, gender, race, and ethnicity) and administered the 5-item (1 point per item) FRAIL Scale. Frail patients were defined as 3 points or greater; pre-frail as 1 or 2 points; robust as no points. We extracted data from the VA electronic health record (EHR) about medical and psychiatric conditions used to calculate an age-adjusted Charlson comorbidity index (CCI), medications, functional status, mean household income, hospitalizations and ER visits.

**Data Analysis:** We reported descriptive statistics and compared demographic and healthcare utilization data between robust, pre-frail and frail groups. To study differences in hospitalizations and ER visits in the previous year, we compared the 4 possible groups of frailty and depression coexistence: (i) non-frail/non-depressed (NF-ND); (ii) non-frail/depressed (NF-D); (iii) frail/non-depressed (F-ND); and (iv) frail/depressed (F-D). We used one-way ANOVA for continuous and Chi square for categorical variables. A binomial logistic regression was performed to ascertain the effects of age, depression, frailty status, functional status, CCI, race, and ethnic group on the likelihood that Veterans will have a hospitalization or ER visits one year after frailty screening. We dichotomized the variables into frail and not-frail, robust and prefrail individuals.

**Results:** 566 patients over age 65 were part of the study: 97.7% male, % 63.8 White, 75.2 % non-Hispanic. The mean age was 77.11 (SD=8.23) years. The proportion of robust, pre-frail and frail patients was 48.9 % (n = 277), 33.6% (n = 190) and 17.5% (n = 17.5) respectively. Veterans with depression represented 32.5% (n = 184) of the sample. There were more patients with depression (p = .002) in both the prefrail (n = 70, 37.2%) and frail (n = 43, 42.6%) groups than in robust individuals (n = 71, 25.6%). Depression (OR = 2:42, CI: 1.37–3.80), frailty (OR = 1.77, CI: .99-3.14) and CCI (OR = 1.45, CI: 1.29–1.64) were predictors of hospitalizations one year after frailty screening. Also, depression (OR = 1.83, CI: 1.22–2.74), frailty (OR = 1.75, CI: 1.04–2.92) and CCI (OR = 1.13, CI: 1.02–1.24) were predictors of ER visit one year after frailty screening.

Age, mean household income, functional status, race and ethnic group were not predictors for either hospitalization or ER visits. Age was statistically significantly different for the four groups, Welch’s F(3, 235.907) = 18.298, p < .0005. In post-hoc analysis, the F-D group was similar in age to the NF-ND (p = .994), but older than NF-D (p = .26) and younger than the F-ND (p = .001). CCI was also statistically significantly different for the four groups, F(3, 559) = 20.554, p < .0005. In post-
hoc analysis, frail groups had similar scores (p = .885) but had higher scores than NF-ND (p < .0005) and NF-D (p = .001) groups. There were no significant differences in mean household income between the groups, F(3, 544) = .188, p = .904 and race (p = .208). Older adults with frailty were more likely to have at least one ADL (p = .0005) or IADL (p = .0005) dependency that non-frail individuals regardless of the presence of depression. There were more hospitalizations in the F-D (n = 31, 35.2%) group than in any of the other groups: F-ND (n = 36, 27.9%), NF-D (n = 25, 26.6%) and NF-ND (n = 29, 12.1%). However only the differences with the NF-ND group were significant (p = .0005). The number of ER visits increased from the NF-ND (n = 70, 32.9%), to the NF-D (n = 36, 38.3%), to the F-ND (n = 53, 41.1%) and F-D group (n = 54, 61.4%) in that order (p < .0005).

**Conclusions:** This study shows that older Veterans with frailty and depression have significantly more emergency room visits than frail non-depressed, and non-frail depressed or non-depressed individuals. Hospitalizations were significantly higher in the frail and depressed group compared to the non-frail and non-depressed group, but not the other two groups. Interventions to reduce the burden of frailty and depression may contribute to improve the quality of care and clinical outcomes of these patients while reducing healthcare costs.

**This research was funded by:** Miami VA Healthcare System, Geriatric Research, Education and Clinical Center.

**Poster Number: NR 7**

**Clinical Correlates of Resilience Factors in Geriatric Depression**
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**Introduction:** Traditional perspectives conceptualize resilience as a trait and depression as resulting from resilience deficiency. However, research indicates that resilience varies substantially even among adults who are clinically depressed, as well as across the lifespan of an individual. Few studies have investigated resilience in depression, and even fewer have examined resilience in depressed older adults.

**Methods:** Three hundred thirty-seven adults with major depressive disorder aged 60 years and older completed the Connor-Davidson Resilience Scale (CD-RISC) and measures of mental health, quality of life, and medical comorbidity. Exploratory Factor Analysis was used to explore the factor structure of the CD-RISC. Correlations and general linear models were used to examine associations between resilience and other variables.

**Results:** The rotated component matrix indicated a four-factor model. Sorting of items by highest factor loading revealed constructs associated with (1) grit, (2) active coping self-efficacy, (3) accommodative coping self-efficacy, and (4) spirituality. Resilience was significantly correlated with increased age, lower cognitive functioning, greater cerebrovascular risk, and greater medical comorbidity. Resilience was negatively associated with mental health symptoms (depression, apathy, and anxiety) and positively associated with QOL. The final optimal model identified less depression, less apathy, greater medical comorbidity, higher QOL, and minority (non-White) race as predictors of resilience.

**Conclusions:** Resilience was significantly associated with a range of mental health constructs in a sample of older adults with depression. Future clinical trials and dismantling studies may help determine whether interventions targeting grit, active coping, accommodative coping, and spirituality can increase resilience and help prevent and treat depression in older adults.

**This research was funded by:** This work was supported by NIH grants AT008383, AT009198, MH097892, and Alzheimer’s Research and Prevention Foundation grants to Dr. Lavretsky.

**Poster Number: NR 8**

**Neurocognitive Correlates of Resilience in Geriatric Depression**
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**Introduction:** Cognitive factors are known to drive the framework of classic therapies used to treat depression. Previous studies have not explored whether cognitive functioning is associated with resilience in older adults with depression. In a recent examination of resilience in depressed older adults, the Connor-Davidson Resilience Scale (CD-RISC) was analyzed using factor analysis to decompose resilience into four factors, namely (1) grit, (2) active coping self-efficacy, (3) accommodative
Method: Two hundred eighty-eight adults ≥ 60 years old with Major Depressive Disorder completed the CD-RISC and neuropsychological testing with the California Verbal Learning Test (CVLT), Rey–Osterrieth complex figure (ROCF), F-A-S and Animal Fluency, Boston Naming Test, Trail Making Tests Part A and B, Stroop Color and Word Tests, and Block Design Test. Correlation analyses and general linear models were used to examine associations between resilience factor scores and neurocognitive measures.

Results: Among resilience factors, active and accommodative coping self-efficacy were significantly correlated positively to language (r = 0.16, p = 0.008; r = 0.20; p = 0.0007). Spirituality was correlated negatively to memory (r = 0.18, p = 0.003), language (r = 0.17, p = 0.005), executive functioning (r = 0.17; p = 0.004), processing speed (r = 0.12; p = 0.04), and visual spatial functioning (r = 0.12; p = 0.04), controlling for age, sex and ethnicity. Similar results were found when education was added as an additional covariate. Total resilience and grit were not associated with cognitive measures.

Conclusions: While the total resilience score was not associated with cognitive measures in older adults with depression, resilience coping skills that focus on adaptation and acceptance may benefit from language interventions in the treatment of depression in older adults. The spirituality domain of the resilience construct, associated with lower cognitive functioning across a wide range of domains, may be useful as a target to improve depressive symptoms in depressed older adults with cognitive difficulties.

Introduction: Depression is a known risk factor for dementia. The association between depression and dementia has been found over the full spectrum of depressive symptoms, including low severity symptoms. There are many observational studies of non-demented older adults that have reported depressive symptoms as a risk factor for incident dementia (Cherbuin, Kim, & Anstey, 2015; Diniz, Butters, Albert, Dew & Reynolds, 2013). In fact, even minimal severity of depressive symptoms have been associated with accelerated progression from Mild Cognitive Impairment (MCI) to dementia (Rosenberg et al., 2013). It remains unclear, however, whether low levels of depressive symptoms are associated with an increased risk of MCI among subjects who are cognitively normal. This study was designed to investigate whether baseline symptoms of depression were predictive of time to onset of clinical symptoms of MCI in a cohort with normal cognition at baseline (mean follow-up = 12.15 years, max = 20 years), and whether these associations were independent of baseline cognitive performance.

Methods: Data for this study was derived from the Biomarkers for Older Controls at Risk for Alzheimer’s disease (BIOCARD) study, which was designed to recruit and follow a cohort of cognitively normal individuals to identify variables that could predict the subsequent development of mild to moderate symptoms of Alzheimer’s disease (AD). By design, about 75% of the participants had a first-degree relative with Alzheimer type dementia. A comprehensive neuropsychological battery and clinical examination were administered annually over a 20-year period. The outcome measure was time to onset of clinical symptoms of mild cognitive impairment for subjects with a diagnosis of MCI or dementia at their last visit. Symptoms of depression were measured at baseline using the Hamilton Depression Scale (HAM-D).

Group differences at baseline were compared with t-tests for continuous variables and chi-square tests for dichotomous variables. Baseline cognition was measured by a cognitive composite score that has previously been shown to predict progression from normal cognition to symptom onset of MCI (Albert et al., 2014). It was calculated by averaging z-scores from Boston-Naming, Paired Associates immediate recall, Logical Memory delayed recall, and Digit-Symbol Substitution tests. We used Cox regression models to determine whether baseline HAM-D scores were associated with time to clinical symptom onset across all subjects. We also examined whether depression severity was associated with clinical symptom onset for transitions occurring closer in time to baseline. To do so, we used a second Cox regression model that included an indicator variable for time from baseline. We compared groups who progressed within 7 years vs after 7 years, reflecting the mean time from baseline to onset of clinical symptoms of MCI in the cohort. All Cox models were run twice: first using continuous HAM-D scores, then using dichotomous HAM-D scores. All Cox models were adjusted for baseline age, education, gender and baseline cognition. Significance was set at p = 0.05.
Results: These analyses included 300 cognitively normal participants with baseline HAM-D scores. Cognitive composite scores were available for 279 subjects. Table 1 shows a comparison of baseline characteristics of the BIOCARD cohort (N = 349), and subjects in the analyses (n = 300), separated by subjects who progressed to MCI (n = 69) vs subjects who remained normal over time (n = 231). At baseline, subjects who progressed to MCI were significantly older than those who remained cognitively normal. Mean HAM-D score at baseline was 2.2 (SD=2.8), without significant difference between the two groups. Baseline total HAM-D scores were not associated with time to onset of clinical symptoms of MCI when the length of time between baseline and clinical symptom onset was not considered. We then repeated the Cox regression analysis to determine whether depressive symptom severity was associated with cognitive symptom onset more proximally to baseline (i.e., for progression within 7 years of baseline) versus after 7 years from baseline. Baseline characteristics of these two groups are also outlined in Table 1. Using baseline HAM-D score as a continuous variable, depression scores were significantly associated with increased risk of MCI clinical symptom onset for progression within 7 years of baseline, but not after 7 years (Table 2). These findings remained significant even after adjusting for baseline cognition.

Conclusions: Depression, even at low severity, among cognitively normal, middle-aged individuals was associated with an increased risk of progressing to clinical symptoms onset of MCI within 7 years, but not after 7 years. This association was independent of baseline cognition. Further studies investigating change in depressive symptoms prior to symptom onset of MCI are needed to confirm these findings.

This research was funded by: This study was supported by grant U19–AG033655 from the National Institute on Aging.
Comparison of a New Cognitive Test, the HKBC, with the MOCA for Screening Cognitive Impairment in Older People

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Introduction: Performance on existing cognitive tests for screening cognitive impairment are often influenced by educational level. A new brief cognitive instrument, Hong Kong Brief Cognitive test (HKBC) has been developed by the authors for populations with low educational level. A number of cognitive domains are included in the HKBC: immediate recall/attention, delayed recall, orientation, frontal lobe function test, general knowledge and executive function, visuo-spatial construction and language. It takes 7 minutes for administration. Pen and pencil tests are avoided. It has been validated and has good psychometric properties (Chiu et al, manuscript in preparation). In general, older people in Hong Kong have a low educational level. The Montreal Cognitive Assessment (MoCA) is one of the most popular cognitive screening test but results are influenced by educational level, and in Hong Kong, there are 4 different sets of criteria to adjust for the educational level, leading to uncertainty by clinicians on how best to apply the results on the MoCA.

This study aims to compare the performance of the HKBC with the MoCA for cognitive screening in older adults in Hong Kong. The study has been approved by the Institutional Review Board of the participating hospitals.

Methods: Three groups of subjects aged 65 or above were recruited in Hong Kong: normal older people recruited in elderly centres, people with Mild NCD (Neurocognitive Disorder) and people with Major NCD (Neurocognitive Disorder). Clinical diagnosis of Major NCD and Mild NCD according to DSM-5 were made by experienced psychiatrists. Only subjects with mild Major NCD were recruited. Subjects were included in the study after they gave written consent. For subjects with major NCD, their relatives also gave written consent.

The HKBC and Cantonese version of the MoCA were administered to the subjects. The performance of the HKBC in differentiating subjects with Major NCD, Mild NCD and normal elderly were compared with the clinical diagnosis and the MoCA scores.

Results: In total, 359 subjects were recruited, with 99 normal controls, 132 subjects with major NCD and 128 with minor NCD.

The mean MoCA and HKBC scores showed significant differences among the 3 groups of subjects. In the ROC curve analysis of the HKBC in differentiating normal subjects from those with cognitive impairment (Mild NCD + Major NCD), the area under the curve (AUC) was 0.955 with an optimal cut-off score of 21/22, sensitivity was 0.90 and specificitly 0.86. The performance of MoCA in differentiating normal from cognitively impaired subjects was inferior to the new cognitive test, with an AUC of 0.913, using an optimal cut-off score of 19/20, sensitivity was 0.80, specificitity 0.86. The performance of the HKBC in differentiating normal from Mild NCD subjects was also inferior to the HKBC. The HKBC cut-off scores did not need to be adjusted for educational level of the subjects.

Conclusions: The HKBC appears to be useful for cognitive screening in populations with low educational level. Limitations of the study include the small sample size and convenience sampling. Further cross-validation studies involving a larger number of subjects are required.

This research was funded by: This project was supported by a Donation by the D.H. Chen Foundation.
Poster Number: NR 11
The Alabama Brief Cognitive Screener Serves as a Method for Monitoring Cognitive Function Over Time in Neurodegenerative Disorders
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Introduction: The Alabama Brief Cognitive Screener (ABCs) is a cognitive assessment developed as an alternative to the Mini Mental State Exam (MMSE) for use in an electronic medical record (EMR). The ABCs is a 30 point instrument designed with a level of difficulty similar to the MMSE. It can be administered in the office setting in 5–15 minutes and provide objective information on cognitive function. Further, preliminary studies demonstrate that it has appropriate psychometric properties and correlates well with daily function in patients with dementia diagnoses. We now report ABCs performance over time in progressive dementia.

Methods: Following IRB approval, we analyzed longitudinal ABCs data for 303 patients, 167 women (55.12%), 136 men (44.88%); mean age 74 (SD 8.4) diagnosed at the University of Alabama-Birmingham Memory Disorders Clinic (MDC) with Alzheimer Disease (AD; ICD-9 331.0; n = 149), Dementia with Lewy Bodies (DLB; 331.82; n = 37), Frontotemporal Dementia (FTD; 331.19; n = 15); and Mild Cognitive Impairment (MCI; 331.83; n = 102). A mixed models approach with random effects controlling for age, gender and including the interaction between diagnosis-time and time-gender was employed.

Results: On the 30-point scoring of the ABCs, scores differed by diagnosis at entry as follows: AD = 16.5, DLB = 19; FTD = 24 and MCI = 25.27 (χ² = 279.7; P < .0001). Annualized rates of change scores for total ABCs were: AD -1.7; DLB -1.1; FTD -2.7 and MCI -0.2 Rates of decline over time differed by diagnosis (F value = 7.81; P < .0001). Women had lower scores at entry and lower education, but no differences in rate of progression.

Conclusions: The ABCs allows for monitoring of progression over time in neurodegenerative disorders with patterns that closely replicate the historical performance of the MMSE in similar groups. The ABCs appears to possess appropriate psychometric properties to provide an alternative to the MMSE that can be more readily accommodated in an EMR.

Poster Number: NR 12
Analgesics in the Management of Behavioral and Psychological Symptoms of Dementia: A Systematic Review
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Introduction: Behavioral and psychological symptoms of dementia (BPSD) is a term that is used to describe a group of psychological reactions, psychiatric symptoms and behaviors that are unsafe, disruptive and impair the care of the individual in a given environment. Available evidence indicates that BPSD is seen in one-third of individuals with dementia who live in the community and 80% among individuals with dementia who live at skilled nursing facilities. BPSD results in worse outcomes for both the individual with dementia and their caregivers after adjusting for relevant comorbidities. BPSD increases the risk for cognitive and functional decline, rates of institutionalization and lowers the individual’s quality of life. BPSD also results in greater caregiver burden and higher social and economic burden.

Current evidence indicates that both non-pharmacological and pharmacological treatments show modest efficacy for the management of BPSD. Multiple different pharmacological agents have been used to manage BPSD, including antipsychotics, antidepressants, anticonvulsants and cognitive enhancers. Unfortunately, these medications have a significant effect profile that carries substantial risks for the geriatric population, and are not indicated for use for greater than 12 weeks. Therefore, there is a great need for identifying efficacious and safe pharmacological treatments that are suitable for long term use among individuals with BPSD.

Methods: This systematic review was conducted in accordance with the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. The purpose of this review is to evaluate the data on the efficacy and tolerability of analgesics for BPSD among older adults (≥65 years) from RCTs. We performed a literature search of PubMed, MEDLINE, EMBASE, PsychINFO, and Cochrane collaboration databases through June 30th, 2017, using the
Fingolimod Treatment Rescues Psychosis-Associated Behavioral Aberrations in Appswe/Psen1de9 Mice

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Introduction: Psychotic symptoms in Alzheimer disease (AD+P) indicate a more severe Alzheimer disease (AD) phenotype which portends more rapid cognitive decline, greater risk of institutionalization, and higher degree of functional impairment. Despite these poorer outcomes, there are currently no licensed pharmacotherapies which target the underlying neurobiology of AD+P. Current treatment strategies therefore rely on empiric use of antipsychotics, which have repeatedly been shown in this population to exert poor efficacy and to increase risk of cerebrovascular events and mortality. We recently demonstrated that subjects who are resilient to psychotic symptoms (AD-P) contain increased abundance of synaptic proteins in dorsolateral prefrontal cortex, compared to AD+P and to unaffected control subjects. Candidate pharmacotherapies which induce a molecular signature resembling that of AD-P thus may represent prospective treatments for AD+P. Fingolimod, an FDA-approved pharmacotherapy for Multiple Sclerosis, has previously been shown to accumulate in brain and preserve synaptic markers and architecture in murine models of neurodegeneration. Therefore, studies designed to test fingolimod’s effects on the synaptic proteome and on the expression of psychosis-associated behaviors in models of AD-related pathology are warranted.

Methods: The maximum tolerable dose (MTD) of IP fingolimod (equivalent volume normal saline for control) was established by dose de-escalation from 30 mg/kg to 5 mg/kg QD in a cohort of 12 C57Bl/6J mice 3 months of age. An MTD of 5 mg/kg was then verified in a separate cohort of 12 C57Bl/6J mice over seven days’ duration. Fingolimod (5 mg/kg) or equivalent volume of normal saline was administered to 12-month-old APPswe/PSEN1dE9 (APP/PSEN1) (n = 19) and WT (n = 19) mice QD over 7 days, during which performance in an open field (OFT) and habituation/ prepulse inhibition of the acoustic startle response (ASR) was tested. Behavioral measures which were elevated in saline-treated APP/PSEN1 mice compared to saline-treated WT mice (p < 0.1) were Z-transformed, adjusted for directionality, and averaged to compute a psychosis-associated summary score. On the seventh injection day, mice were sacrificed, and cerebral cortex extracted for postsynaptic density enrichment, followed by trypsin digestion, liquid chromatography, and targeted mass spectrometry of synaptic proteins (LC-MS/MS).
Results: Fingolimod treatment in APP/PSEN1 mice normalized psychosis-associated behaviors (p = 0.016) which were significantly elevated APP/PSEN1 mice treated with saline (p = 0.002). More specifically, an effect of genotype in saline-treated mice was present for total distance traveled (p = 0.007) and number of ambulatory episodes (p = 0.013) in OFT, and for mean prepulse inhibition (p = < 0.001) and habituation (p = 0.081) of the ASR. In contrast to APP/PSEN1 mice, there was no effect of treatment in WT mice for any of these measures (all p values >0.227). Effects of fingolimod treatment on the synaptic proteome in APP/PSEN1 and WT mice will be presented.

Conclusions: Fingolimod treatment (5 mg/kg QD for seven days) rescues psychosis-associated behavioral aberrations in APP/PSEN1 mice without modifying WT behavior, an effect which may indicate fingolimod’s biologic specificity for AD+P-related synaptic pathology. These findings may inform future studies designed to investigate the utility of fingolimod for treatment of psychosis in AD.

This research was funded by: Veterans Health Administration, BX000452.

Poster Number: NR 14

Initial Experience with PET Imaging of Synaptic Density (SV2A) in Alzheimer’s Disease: A New Biomarker for Clinical Trials?

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Introduction: The ability to measure synaptic density in vivo would accelerate the development of disease-modifying treatments for Alzheimer’s disease (AD). Positron Emission Tomography (PET) imaging of glucose metabolism with 18F-fluorodeoxyglucose (18F-FDG) has been widely used to measure neuronal activity and to track the progression of AD. However, 18F-FDG is not a direct biomarker of synaptic density and may be affected by stimulation, medication, and blood glucose. Therefore, tracers for new molecular targets are needed to directly monitor synaptic density. One suitable target is the synaptic vesicle glycoprotein 2 (SV2), an essential vesicle membrane protein. One of its isoforms, SV2A, is ubiquitously expressed in virtually all synapses and is involved in regulation of synaptic trafficking. Abnormal neurotransmission was reported in mice lacking SV2A (Crowder KM, et al, Proc Natl Acad Sci USA. 1999;96:15268). Thus, SV2A imaging could provide a highly useful indicator of synaptic density in AD. We recently developed 11C-UCB-J, a PET tracer for quantitative SV2A imaging in vivo and carried out the first-in-human studies (Finnema SJ, et al, Sci Transl Med. 2016;8:348).

Methods: Here we compared SV2A density as measured by 11C-UCB-J in 10 participants with AD and 11 who were cognitively normal (CN). AD participants (72.9 ± 8.7 years, CDR=0.5–1.0, MMSE=24.1 ± 4.8) were all Aβ+ by 11C-Pittsburgh Compound B (11C-PiB) PET and spanned the disease stages from amnestic Mild Cognitive Impairment (aMCI, n = 5) to mild dementia (n = 5). CN participants (72.7 ± 6.3 years, CDR=0, MMSE=29.3 ± 1.2) were all confirmed Aβ− by 11C-PiB PET. Participants were scanned on the HRRT after bolus injection of 11C-UCB-J. Arterial blood samples were collected for measurements of radiometabolites and 11C-UCB-J free fraction in 9 AD and 8 CN participants. Regional time-activity curves were analyzed with the 1-tissue (1T) compartment model (Finnema SJ, et al, J Cereb Blood Flow Metab. 2017) to estimate volume of distribution (VT). Using the centrum semiovale as a reference region, regional BPND values (VT ROI/ VT centrum semiovale – 1) were also estimated for the full sample. We hypothesized a reduction in hippocampal binding, based on the early degeneration of entorhinal cortical cells projecting to hippocampus (via the perforant pathway) and evidence from postmortem studies of hippocampal SV2A reductions in AD.

Results: AD participants—compared to CN participants—demonstrated significant reductions in hippocampal SV2A binding as assessed by 11C-UCB-J BPND (p = 0.005, t-test) and VT (p = 0.011). These reductions persisted after partial volume correction (BPND: p = 0.020, VT: p = 0.056). Exploratory analyses of other brain regions of interest and statistical parametric mapping (SPM) also revealed reductions in entorhinal cortex. Hippocampal SV2A binding was correlated with a composite episodic memory score in the overall sample.

Conclusions: 11C-UCB-J PET may provide a direct measure of synaptic density in AD. Further study is needed to determine if the pattern of SV2A reductions in AD, as measured by 11C-UCB-J PET differs from that for 18F-FDG. SV2A PET imaging with 11C-UCB-J may hold promise as an in vivo biomarker and outcome measure for trials of disease-modifying therapies—particularly those that target the preservation and restoration of synapses in AD.
Lower Risk of 10-Year Incident Cognitive Impairment for Mexican Americans Aged 75 and Older in 2004-05 Compared to 1993-94

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Introduction: There is growing evidence for a decline in the prevalence and incidence of Alzheimer’s disease and related dementias. These findings have been attributed to greater educational attainment, reduced incidence of stroke, and better management of chronic health conditions. However, limited research has examined if the declining trend in dementia risk are also occurring in minority populations, especially Mexican Americans.

Methods: Data: This analysis used data from the Hispanic Established Populations for the Epidemiologic Study of the Elderly (H-EPESE) to examine differences in the 10-year risk of cognitive impairment for Mexican Americans aged 75 and older in 2004-05 compared to Mexican Americans aged 75 and older in 1993-94. The H-EPESE is an ongoing longitudinal study of Mexican Americans aged 65 years and older living in the southwestern United States. The first observation wave was completed in 1993-94 and follow-up observation waves have been completed approximately every two years. Of the 3,050 participants interviewed at wave one, 1132 participants were 75 years of age and older. At wave five (2004-05), a new cohort of 902 participants aged 75 and older were added to the sample. Wave one is the baseline observation wave for the Original Cohort and wave five is the baseline observation wave for the New Cohort. We excluded participants who were cognitively impaired at baseline, required a proxy to complete the baseline interview, or were missing data for one or more covariates at the baseline interview (see measures). The final sample included 1311 participants, 763 from the Original Cohort and 548 from the New Cohort.

Measures: Cognitive impairment was defined as scoring ≤ 18 points on the Mini-Mental Status Exam. Cox-proportional hazards regression models adjusted for age and gender were used to examine the risk for 10-year incident cognitive impairment for participants in the New Cohort compared to the Original Cohort. Subsequent models controlled for education, health conditions (diabetes, hypertension, stroke, heart disease, and depression), and having ever smoked ≤ 100 cigarettes.

Results: Compared to participants in the Original Cohort, those in the New Cohort were more likely to be born in the U.S., completed more years of education, had a higher prevalence of diabetes and hypertension, and were more likely to have smoked ≤ 100 cigarettes. The Original Cohort was more likely to have high depressive symptoms than the New Cohort. The results from model one showed that the New Cohort had a significantly lower risk for incident cognitive impairment compared to the Original Cohort (hazard ratio [HR] = 0.81, 95% CI=0.66–0.99). The increased risk was reduced and no longer statistically significant after controlling for years of education (HR=0.89, 95% CI=0.72–1.09). The results were consistent after controlling for health conditions and smoking history (HR=0.90, 95% CI=0.73–1.11).

Conclusions: This analysis produced evidence that the risk for incident cognitive impairment over a 10-year period is lower for Mexican Americans aged ≤75 in 2004-05 compared to those aged ≤75 in 1993-94. The lower risk for cognitive impairment was due in part to cohort differences in educational attainment. Continued research is needed to identify other characteristics of more recent cohorts of older Mexican Americans that may contribute to a lower risk of cognitive impairment.

This research was funded by: The research was supported by the National Institutes of Health, the National Institute on Aging (grant # 5R01AG010939 and 2T32AG000270).
**Introduction**: There are many scales used to measure depression, anxiety, psychosis, neuropsychiatric symptoms for dementia patients in nursing homes. There are also many scales that measure one’s ability to complete activities of daily living (ADLs). The Katz Activities of Daily Living Scale is used often and assess the tasks of bathing, dressing, transferring, using the toilet, continence, and eating (Katz et al., 1963). A 1986 study found that at least forty-three indexes that measure ADLs for patients have been published (Feinstein, Josephy, and Wells, 1986), with few of these made specifically for dementia patients. Aggression in dementia patients has been well-documented (Ryden et al., 1991), and innovative ways to ameliorate aggression have been developed (Clair and Bernstein, 1994). The effects of dementia on job satisfaction of caregivers have also been studied (Dougherty et al., 1992). The impact of individually tailored planned care for patients along with clinical supervision on nurse-patient cooperation style have also been studied (Edberg, Hallberg, Gustafson, 1996). A quantitative scale to assess the cooperation between a caregiver and dementia patient has not yet been established. Studies that cite improved cooperation tend to resort to qualitative descriptions.

Noncooperation with healthcare workers to overall daily care, medications, and treatments is a major factor in patient care and associated costs for dementia patients in nursing homes. Resistive patients require increased numbers of staff and psychotropic medications. Informant distress related to patient’s BPSD, rather than the symptoms themselves, noted to be associated with higher healthcare utilization and costs (Maust et al 2017). A Resistiveness to Care scale was developed to measure a wide range of resistive behaviors (Mahoney et al, 1999). Another Resistiveness to Care scale was developed for dementia patients more recently and focused on the variety of patients’ resistive behaviors but with little consideration for the impact they have on healthcare staff (Galik et al, 2017). The absence of resistance does not automatically equate to cooperation. As of now, there is no scale that measures patient cooperation with care for ADLs.

**Methods**: The proposed Cooperation with Care scale was originally separated into six subscales: bathing, toileting, dressing, feeding, taking medications, and other treatments. Each measure was given an integer between 1 and 3 to express the interaction between caregiver and patient, for a total score maximum of 18. A 3 denoted full cooperation, a 2 denoted mild to moderate resistance/hesitation, a 1 denoted complete uncooperation and was given if the patient was physically combative. Once a week for the duration of six weeks, 15 patients’ data was collected for each subscale from nurses and CNAs from both the first and second shifts at a single nursing home. Complications arose when not all patients underwent additional treatments, making the sixth subscale unable to standardize. Only the first shift of caregivers bathed the patients, so the first dimension “bathing” was collected from only half of the team polled. Eventually, these two tasks were discarded so that the final score was out of 12.

**Results**: See Table 1.

**Conclusions**: Patient cooperation to complete ADLs is of paramount importance in nursing home settings. The Cooperation with Care scale measures interactions between patient and caretaker, and it can be a useful tool in providing adequate care to all nursing home dementia patients while addressing the adequate staffing. The scale will quantitatively inform nursing home administration of which patients require the most resources and offer insight into allocating adequate staff on each unit. As a result, the scale may potentially prevent staff burnout and turn over without jeopardizing patient care. Further, the Cooperation with Care scale can indicate effectiveness and/or provide feedback for improvement when implementing nonpharmacological interventions to decrease neuropsychiatric symptoms and behavioral disturbances. Improved scores on Cooperation with Care scale with one shift may give insights to the staff on the second shift and help them change how they approach the patient. (Table 2)

This study found the Cooperation with Care scale to be reliable and valid when used for nursing home dementia patients. More studies are needed to confirm these results.

<table>
<thead>
<tr>
<th>Week#</th>
<th>Pearson correlation</th>
<th>Kappa statistic for agreement as to near perfect cooperation, or not</th>
<th>Percent of patients with perfect or near-perfect scores first shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week1</td>
<td>0.74**</td>
<td>0.57*</td>
<td>60</td>
</tr>
<tr>
<td>Week2</td>
<td>0.62*</td>
<td>0.29</td>
<td>60</td>
</tr>
<tr>
<td>Week3</td>
<td>0.39</td>
<td>0.53*</td>
<td>67</td>
</tr>
<tr>
<td>Week4</td>
<td>0.71**</td>
<td>0.31</td>
<td>53</td>
</tr>
<tr>
<td>Week5</td>
<td>0.85***</td>
<td>0.53*</td>
<td>73</td>
</tr>
<tr>
<td>Week6</td>
<td>0.90***</td>
<td>0.59*</td>
<td>60</td>
</tr>
</tbody>
</table>

*P.
Poster Number: NR 17

Usability and Acceptability of A Mobile Dementia Observations Application (Dobs) on A Dementia Care Unit

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Introduction: Responsive behaviours in dementia, such as agitation and aggression, are common and distressing for caregivers and patients. A basic principle of assessment of behavioural symptoms is to chart the behavioural patterns over 24 hour cycles, to help establish their frequency, severity, and any patterns to the behaviours. A widely-used tool for this assessment is called the dementia observation system (DOS), which is paper-based. We have developed a web-based mobile Dementia Observation (DObs) application designed for use by front-line staff, with the goal of improving the ease, completeness, and accuracy of behavioral data collection.

The aim of this study was to evaluate the usability and acceptability of the DObs mobile application with front-line dementia care workers.

Methods: We used a mixed-method design. Participants were clinical staff on the Toronto Rehab Geriatric Psychiatry inpatient dementia unit. They were asked to complete a series of tasks that assessed the administrative and observational functions of the app. Quantitative measures of user interaction errors were recorded. Assessors also completed the system usability scale (SUS), a perceived usefulness scale, and a computer self-efficacy scale (C-SES). Qualitative data was collected via audio-recording of the scenario based tasks and post-test questions related to improvements and clinical implementation.

Results: Seven clinical staff participated in this study, with a mean C-SES score of 8.5/10. Participants completed on average 83% of tasks correctly, required hints 5% of the time, and failed 13% of the time. In addition, the perceived usefulness of the app was given an average rating of 4.3/5. The System Usability Scale (SUS) provides an overview of the user experience and satisfaction with the system. The administrative function had an average SUS score of 80.4/100 and the observational function scored 80.7/100. Other issues identified included were the need for better confirmation for user actions and challenges in incorporating the application into daily workflow.

Conclusions: Mobile technology offers an opportunity to improve the assessment and treatment of responsive behaviours in dementia. Areas of improvement with respect to usability of the DObs mobile application were identified and are being incorporated into the application. Our next study will examine DObs feasibility in the clinical workflow of a dementia care environment, and assess the validity and reliability of the mobile application.

This research was funded by: Centre for Aging and Brain Health Innovation SPARK grant.
Effectiveness of A Review and Reduction Strategy for Patients Receiving Atypical Neuroleptic Treatment for Behavioral and Psychological Symptoms of Dementia on Hospital Inpatient Geriatric Units

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Introduction: Behavioural and psychological symptoms of dementia (BPSD) have a high prevalence in dementia. There are many suggested management strategies for BPSD. Neuroleptics have a role in the management of these symptoms, but the potential benefits must be weighed against the significant risks such as cerebrovascular adverse events and mortality. The 3rd Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD, 2007) recommends careful review and documentation of BPSD, with efforts at modifying behaviours through non pharmacological methods first. Neuroleptic medications may be necessary for symptoms of severe agitation, aggression and psychosis where there is risk of harm to the patient and/or others. The CCCDTD3 recommends that if used, these medications should be reviewed for potential taper or withdrawal after 3 months of stability.

Methods: A retrospective review was undertaken of the Neuroleptic Review Program. This program was developed as a Quality Improvement initiative in 2007. Education sessions were offered to nursing staff on the targeted units to review the recommendations of the CCCDTD and methods of documenting BPSD. All patients on the two 21 bed Transitional Care Units (TCU) at St. Joseph’s Hospital who were receiving scheduled maintenance neuroleptic treatment (defined as atypical agents such as risperidone, quetiapine or olanzapine) for BPSD were reviewed at monthly interdisciplinary team rounds. Prior to rounds, the pharmacist completed the Neuroleptic Medication Usage Form recording the history of neuroleptic use. Based on this history, the team decided if individual patients were candidates for dosage reduction/discontinuation. During rounds, up to three patients were chosen for review. Prior to the next team rounds, chosen patients had a baseline behavioural assessment completed by nursing staff using the Cohen-Mansfield Agitation Inventory (CMAI). Patients chosen for this initiative underwent dosage reduction/discontinuation of their neuroleptics and their behaviour was monitored with documentation of any deterioration in behaviour charted. A CMAI was repeated prior to all subsequent team rounds.

Results: Results were reviewed from October 2007 - September 2017. During that time period, 260 patients were on neuroleptic treatment. After review, 78 patients (30%) were targeted for dose reduction or discontinuation. Of these 78 patients, 28 patients achieved a dose reduction and 27 patients achieved a discontinuation of neuroleptic treatment. In 23 patients, treatment change resulted in worsening of BPSD and treatment was resumed. Overall, 71% of those targeted achieved reduction or discontinuation of neuroleptic therapy.

Conclusions: This strategy was easily incorporated into usual care. It was an interdisciplinary effort. Staff received education regarding monitoring and management recommendations. The strategy resulted in successful dose reduction or discontinuation in the majority of patients targeted. Overall, almost 1/4 of the patients on neuroleptics had a successful dose reduction or discontinuation. The Health and Aging Program at St. Joseph’s Hospital adopted a Best Practice Guideline entitled “Monitoring of Patients Receiving Maintenance Neuroleptic (Antipsychotic) Therapy.”

New Onset Post-Traumatic Stress Disorder in Long-Term Care Home Residents with a Pre-Existing Diagnosis of a Major Neurocognitive Disorder

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Introduction: Sinai Health System through its Wellness Centre seniors mental health outreach program to the Chinese community in Toronto, Canada provides mental health support to a large multi-site long term care home network of 805 beds for a primarily East Asian population. Many of the consultation requests are for assistance in managing the behavioural and psychological symptoms of dementia (BPSD). In the course of this work it became apparent that a subset of residents we were asked to see actually had a Post Traumatic Stress Disorder (PTSD), and that this PTSD was not experienced by the resident prior to the the worsening of the major neurocognitive disorder and/or residential care. This study is an initial attempt to understand more of the new onset PTSD experience of major neurocognitive disorder patients in long term care.
Methods: We performed a retrospective chart review looking for cases that were identified as new onset PTSD patients in our long term care resident population with an underlying major neurocognitive disorder over the period 2014-2016. This case series was then evaluated for common themes in terms of demographic and clinical characteristics.

Results: Fifteen cases were initially identified, with four cases not included as they were felt not to be specific enough in meeting DSM 5 criteria for PTSD. Eleven cases were identified as meeting DSM 5 criteria for PTSD, which emerged after admission to the long term care setting, and who also had a pre-existing major neurocognitive disorder. Eight women and three men were identified. The mean age was 88.8 years. Five of these patients had a Vascular Dementia, two had Alzheimer’s Dementia, and one had a Parkinson’s Disease Dementia. Seven of these residents spoke Cantonese as their primary language, two spoke Mandarin, one spoke Hakka, and one spoke Tamil. On cognitive assessment at time of first diagnosis with PTSD, standard MMSE scores ranged from untestable to 24/30 with mean result being 14/30. In terms of traumatic experience leading to the PTSD, nine patients described war time experiences, and two patients (each female) described sexual assault. These experiences were validated with family members. In 100% of these cases, knowledge of the PTSD diagnosis altered family and staff perception of resident behaviour and altered the management plan for the residents who had previously been identified as individuals with BPSD.

Conclusions: PTSD is a specific psychiatric illness with an approach to diagnosis and treatment. As a major neurocognitive disorder progresses, impairment in executive functioning can emerge—in this context specific impairment in managing memories of previously experienced traumatic events. Traumatic events which may have been actively organized and managed in terms of the patient’s executive functioning may no longer be able to be “managed” by an individual who can no longer cognitively organize the traumatic experience. In a crucial sense, the progression of a major neurocognitive disorder is an inherently disorganizing process with profound effects on the subjective experience of past severe trauma. In our small sample of patients we found individuals, who despite not demonstrating symptoms of PTSD while cognitively intact, did begin to experience PTSD as their cognition declined. In our sample, the majority of individuals experienced trauma related to war, and specifically this referred to the civil war in China which led to the Communists taking power, and the invasion of China by Japan during World War II. The sexual assaults were experienced by two women, who were both assaulted by family members as young women. More women were diagnosed with PTSD in this sample than men, which may reflect that more women live longer, but also may reflect that women are more vulnerable in war generally than men. Being diagnosed with new onset PTSD in the context of a pre-existing major neurocognitive disorder, allowed for a targeted non-pharmacologic approach focused on emphasizing safety and a more targeted pharmacological approach geared to PTSD. Selecting PTSD patients out of a generic BPSD category can be useful for patients, family, and staff in long term care settings.

This research was funded by: No financial support.

Poster Number: NR 20

Older Adults’ Social Relations and Resiliency to Widowhood

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Introduction: For older adults, transition to widowhood can be an extremely challenging time, which requires a tremendous amount of coping. Although the majority of people have the ability to bounce back from general adversity, the ability to demonstrate resilience to widowhood varies greatly based on the breadth and depth of family and friend relationships. Although all widowed adults experience an emotional and physical loss, having frequent contact with family and friends can be the key to a successful show of resilience to such losses. For example, frequent social relationships with relatives and friends may minimize emotional stress and depression while boosting psychological well-being (U.S. Bureau of the Census, 2015). Among the multitude of changes that come with widowhood, the most common changes for older widowed adults involve their identity and social relationships, particularly with other couples. Sheykhi (2006) discussed that widowhood removes a central identity as wife or husband. Furthermore, older married adults are more likely to socialize with other couples, but when one of the couples experiences widowhood or divorce, disruption in the friendship is likely (Hooyman & Kiyak, 2015).

Methods:

Sample
The present study employed an explanatory approach using a cross-sectional study design. This study utilized data from the National Social Life, Health, and Aging Project (NSHAP). (Waite, Laumann, Levinson, Lindau, McClintock, O’Muircheartaigh, & Schumm, 2015). The NSHAP measures older adult health and other related social factors using a national scale for the purpose of assessing older adult well-being. NSHAP data collection entailed three measurements: in-home interviews, biometries, and leave-behind respondent-administered questionnaires.
Analysis
To address the study’s two hypotheses, multiple regression was performed to examine the degree of association between variables and how well the independent variables explained the dependent variable.

Results: The total sample size was N = 3005. The descriptive statistics for the current study are summarized in Tables 1 and 2. The majority of the participants were married (62%) and the rest were widowed (22%), divorced (12%) or never married (4%). The mean age of the sample was 69.3 (SD=7.9) with a range from 57–85 years. The majority were retired (63%). There was an even representation of men (48%) and women (52%). The race composition was 70% White, 17% African American, 10% Hispanic, and 2.3% Other ethnicity. Close to two thirds (60%) had average or lower incomes. More than half (57%) had poor to good health. These results mean that the average participant was a married, retired, 69 year old white man or woman in poor to good health, living on an average to low income. Regarding the two hypotheses, 22% were widowed compared to two thirds being married.

The dependent variable quality of family relationships was regressed against the independent variable marital status (see Table 3). Independent variables (i.e., marital status) accounted for 4% of the variance in frequency of “opening up to family” (R2 = .04, R2 adjusted=.04, p < .001). Beta values indicated that participants who were widowed (β = .05, p < .05), as opposed to married, had higher frequency of “family opening up.” On the other hand, independent variables accounted for only 2% of the variance in frequency of respondents “relying on family”(R2 = .02, R2 adjusted=.02, p < .001).

In addition, it was hypothesized (H2) that older widowed adults would have a higher quality of friendships than older married adults. With respect to quality of friendships, independent variables (i.e., marital status) accounted for 5% of the variance in frequency of “opening up to friends” (R2 =.05, R2 adjusted=.04, p < .001). Beta values indicated that participants who were widowed (β = .05, p < .05) had a higher frequency of “relying on friends” than did those who were married.

Conclusions: Given the increasing numbers of older widowed adults expected in the future, the current findings warrant future research on the specific dynamics around how close relationships serve to foster resilience to widowhood and the associated implications for social policy. In addition, future research should direct more attention to the vulnerabilities of older widowed women and their different approaches to resiliency via social relationships. By understanding the factors of resiliency to widowhood, family and gerontological researchers, family policy makers, and family welfare workers will be able to focus on the social programs (e.g., social gathering, therapy, and counseling) that provide the most benefits to older widowed adults and their families, friends, and other close associations.

This research was funded by: No funding.
Results: Adjusting for age, employment, physical health and sport, a positive effect of caregiving type 2 (looking after someone) on cognitive function ($\beta = 1.89, p < .01$) was found in the total sample. Closer inspection revealed a positive effect of caregiving type 2 only in women ($\beta = 2.70, p < .01$), but not in men ($\beta = 1.04, p = .21$). The other three caregiving types did not show a significant effect, neither in the total sample (helping around the house: $\beta = 0.79, p = .32$; performing nursing care services: $\beta = 1.91, p = .11$; other kind of care: $\beta = 0.92, p = .41$), nor in men (helping around the house: $\beta = 0.23, p = .83$; performing nursing care services: $\beta = 1.17, p = .51$; other kind of care: $\beta = 0.96, p = .50$) or women (helping around the house: $\beta = 1.30, p = .25$; performing nursing care services: $\beta = 2.46, p = .13$; other kind of care: $\beta = 0.61, p = .72$).

Conclusions: Informal caregiving in terms of looking after someone can be beneficial for cognitive function in female caregivers. However, negative health outcomes have to be considered too, when deciding on caregiving responsibilities and arrangements. Different supportive options might have to be considered depending on the caregiver’s health outcome of interest (e.g. cognition vs. mental health) and also on the caregiving type performed.

This research was funded by: None.

Poster Number: NR 22

Psychological Wellbeing in Older Women Volunteers
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Introduction: Having meaning and purpose in life is an important feature of mental health, however, finding meaning and purpose may become more challenging for older adults, due to declining function and increasing losses (e.g., widowhood, retirement). Yet, meaning and purpose in life has shown a strong association with social integration and with relational quality in particular. High levels of meaning and purpose have been associated with better health, higher daily competence, higher socioeconomic status, being employed, and being married. In addition, high levels of reported meaning and purpose in life has been associated with better health, psychological well-being, and lower levels of depression symptoms, and better sleep in older adults. Volunteering as a source of purpose in life has been reported in several studies. The Senior Companion Program (SCP) has been recognized as an important program that helps to bridge the gaps of geriatric care by meeting the non-medical needs of community dwelling older adults. SCP is a program supported by the Corporation for National and Community Service an independent, federal grant-making government agency whose mission is to improve lives, strengthen communities, and foster civic participation through service and volunteering.

One of the goals of a community-based participatory research project, “Engagement and quality of life in underrepresented older adults” involving the local SCP (administered by Catholic Charities Indianapolis) and IU School of Medicine, was to assess the psychological wellbeing of the senior companions (SC).

Methods: We used the NIH Toolbox measurement of psychological wellbeing fixed length form questionnaire because of the comprehensive nature of the tool consisting of 3 subdomains–positive affect, general life satisfaction and meaning and purpose. Questions from the psychological wellbeing fixed length form questionnaire were tested for acceptability with a small group African American SC. Of the original 34 items, the SC recommended 14 items as most useful and acceptable. 60 Indianapolis SC participated (1 male was excluded from the analyses), therefore, only women were included in these analyses. Mean age of our SC was 70.1 (SD.7.6 years) and 81% (n = 48) were African American.

Results: Results from the SC responses to the 14-item questionnaire were compared to a convenience sample of 261 women ≤60 years (mean=71.5) from the NIH Norming Study. Scores on psychological wellbeing and all subdomains from the SC group were significantly higher ($p < .0001$) than those from the NIH Norming Study. When the responses of the 48 African American women SC were compared to a subsample ($n = 24$) of NIH Norming Study African American women ≤60 years, our SC had higher scores in all domains but reached significance for the meaning and purpose subdomain only ($p = 0.0005$).

Conclusions: Remaining socially engaged provides meaning and purpose in life as people age and may improve healthy aging. The results of this study emphasize the importance and positive impact of volunteering, as our SC reported high levels of meaning and purpose in their lives as a result of participating in the SCP. Thus, volunteering in the SCP appears to have
beneficial effects on older women, particularly the large percentage of African American women in our sample. We invite discussion of the implications of our results.

This research was funded by: This research was supported by the Indiana Clinical and Translational Sciences Institute #TR001107 NIH, National Center for Advancing Translational Sciences and the Indiana State Department of Health. In addition, M Guerriero Austrom and S Gao were also supported, in part, by NIH P30 AG010133.

Poster Number: NR 23

Synopsis of Outreach Services Provided to Patients with Complex Nursing Needs after Transfer from a State Hospital
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Introduction: In June 2010, the Carvel Geriatric Unit of the Delaware Psychiatric Center was closed due to an unresolvable environmental situation. The patients in the unit were transferred to nearby nursing home facilities and an outreach team was established. The goal of the outreach team was to assist all Carvel patients with the focus of reducing the anxiety associated with their move and the resulting change to their routine and environment and to foster a safe, smooth transitional period. The outreach team also had the goal of assisting the nursing home staff in the overall management and care of these patients.

Who were the Carvel patients?
The patients in the Carvel building had been there for varying lengths of stay. The majority of the patients had major psychiatric illnesses requiring skilled nursing care including but not limited to schizophrenia spectrum and other psychotic disorders, depressive disorders, and neurocognitive disorders due to Alzheimer’s disease, vascular disease, or secondary to substance use. Approximately two thirds (61%) of these patients were non-ambulatory. There were twenty-two female patients and nine male patients. The ages ranged from 55 to 92 years of age with the average age of 70.6 years.

Objective of the project:
To summarize the services provided by the outreach team and to determine outcome using measurable criterion.

Methods: We will summarize the services provided by the outreach team and for the thirty one patients that were moved from the Carvel building we have established three different components to measure outcome. The components are; use of psychotropic medications, number of emergency room visits, and number of inpatient hospitalizations required once the patients were moved. Data will be extracted, summarized in tables, and consolidated for analysis.

Results: The outreach team comprised of multiple disciplines. The team was able provide services that included:
Psychiatric and psychological consultation and recommendations on medication management as needed.
Individual supportive therapeutic services for patients and families.
To identify any medical/nursing/physical therapy needs and make appropriate recommendations.
Participate in treatment team meetings as needed or requested.
The nursing and medical staff at the nursing home facilities were also provided with specific situations where in they could to contact the outreach team for assistance.

Work in progress: We understand that to determine the outcome we have to also include quantifiable criterion. In order to do that, we have started collecting data on three measurable parameters; the use of psychotropic medications as well as other interventions required to manage psychiatric and behavioral symptoms, number of emergency room visits, and number of inpatient hospitalizations required once the patients were moved from the Carvel facility.

Conclusions: The information generated from our outreach team will provide insight into facilitating integrated care for geriatric patients with mental illness. From the data obtained through the measurable parameters, we will have an opportunity to compare our model to similar models in other communities. Further, the challenges faced while establishing such an approach are worth discussing so as to improve, and establish a model that can be used in similar situations in the future. We believe that a well-designed partnership in any situation can deliver widespread beneficial outcomes for geriatric patients with mental health issues.

Poster Number: NR 24

Delivery of Psychiatric Care to Patients with Parkinson’s Disease Using Telemedicine
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Introduction: Patients with Parkinson’s disease (PD) and other movement disorders have great difficulty driving long distances to attend medical appointments, especially to clinics located in large cities, where traffic and parking are constant stressors. Furthermore, patients with PD may experience unpredictable “off” times leading to pain, discomfort, poor attention/concentration, and non-motor fluctuations such as anxiety and depression, which make it challenging to fully participate in psychiatric interviews. Telemedicine offers a convenient, feasible solution to these challenges.

Methods: The University of California San Francisco (UCSF) Movement Disorders and Neuromodulation Center is a large interprofessional center dedicated to diagnosing and treating patients with severe movement disorders, many of whom receive deep brain stimulation surgery. The team includes a 0.5 FTE geriatric psychiatrist. In an effort to increase patients’ access to psychiatric services, especially for those who reside in remote areas, psychiatry follow-up visits may be delivered by telemedicine. Patients must have the requisite technical capability and cannot be cognitively impaired or considered a safety risk. UCSF uses a web-based, secure, encrypted application (Zoom) for this purpose. This study aimed to explore patient perceptions regarding telepsychiatry and understand the feasibility of providing telepsychiatry visits in a busy interprofessional clinic setting, as well as any barriers and challenges. All patients seen by the psychiatrists via telemedicine in 2017 were invited to participate. Participation was entirely voluntary. Participants received an initial demographic survey after the first telemedicine visit, and satisfaction surveys after each visit by email. The surveys were modified, with permission, from a previous study of telemedicine for patients with PD. Survey responses were collected in REDCap. The study received UCSF IRB approval.

Results: Since January 1, 2017, 32 patients (26 of whom had PD) received a total of 98 telepsychiatry visits. Mean age was 61.3 (SD 10.7) years; 72% were males; patients lived on average 81.1 miles (SD 82) from UCSF. Main perceived advantages of telemedicine, ranked from 1 = most important to 3 = least important were: No need to drive/park at UCSF: mean score 1.4 (SD 0.7); Saves time: mean score 2.1 (0.7); More comfortable: mean score 2.4 (SD 0.7). Regarding visit satisfaction, 93% of responses indicated patients were very satisfied with telepsychiatry visits, and 100% would recommend it to friends or family members with PD. Patient comments included: “We were able to bring in all my husband’s caretakers including myself for a group discussion.” “It’s good to be seen in person but when physically not able to travel telemedicine is a very good option.” And “Ability to have an appointment between office visits.” However, others mentioned: “I really enjoy seeing my doctor in person.” and “Set up of Zoom is not easy.” A main challenge has been the fact that Medicare does not currently cover telepsychiatry services in California, and 72% of patients seen have Medicare. UCSF sponsors these services.

Conclusions: Patients expressed high satisfaction with telepsychiatry visits, and this service delivery modality appears to be feasible. Further research is needed to establish its sustainability.

This research was funded by: This study was sponsored by a 2017 Community Grant from the National Parkinson Foundation.

Poster Number: NR 25

The Implementation and Effectiveness of a Higher Level Outpatient Mental Health Care Program for Older Adults

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Introduction: Multiple stakeholders are increasing pressure to provide high quality outpatient care for older adults with mood disorders. Inpatient psychiatric care is expensive, and payers are scrutinizing the necessity of each inpatient day. Traditional outpatient programs that cater to people with non-commercial health insurance struggle to stay financially solvent. Unfortunately, the current intermediate levels of care such as intensive outpatient services and partial hospitalization programs present practical barriers for older adults. Those with multiple medical issues struggle to tolerate long, frequent therapy sessions, and the cost of care can be a barrier. To meet the needs of our older adults with significant impairment from mood and anxiety disorders, we designed the Bellefield Enhanced Supportive Team (BEST) in 2014. It is an ambulatory program with biweekly group therapy, weekly individual psychotherapy and frequent medication management visits.

Methods: Participants: Patients ≥ 60 years of age with a primary diagnosis of a mood or anxiety disorder were referred from inpatient units, emergency rooms, or from traditional ambulatory clinics. Patients with primary psychotic illnesses, active substance use disorders, and those with cognitive impairment [Montreal Cognitive Assessment (MOCA) scores <20] were referred to other programs. Treatment Modality: Treatment consists of medication management, group interventions, and individual therapy visits. Group therapy is based on principles of Interpersonal and Social Rhythm Therapy (IPSRT). Groups meet two times/week for
90 minutes each. One weekly group focuses on interpersonal issues and the other on promoting regularity of daily rhythms, although there is overlap in content and themes are reinforced. In addition, patients meet with individual therapists every week and have medication management appointments with a psychiatrist, typically about 2 times/month.

Outcomes: We assessed depressive symptoms using Quick Inventory of Depression Symptomology-Self Report (QIDS-SR) and the Geriatric Depression Scale (GDS). We assessed general physical and mental functioning using the Medical Outcome Survey- Short Form (SF-12). These were given to patients monthly while they were in the program. Throughout BEST, we monitored revenue and expense.

Results: During the period from September 2014 until July 2017, 242 patients have participated in the BEST program; 35.6% (n = 87) of the sample was male. The mean age was 70.3 (range 52–92). Our presentation will include complete analyses of 242 patients. We will examine change in outcome measures (QIDS, SF-12, MOCA, and GDS) over time to better understand the functional forms of the trajectories of BEST participants (overall and by age group, gender, and diagnosis) to evaluate the effectiveness of our program. We will review the program’s financial data from the period between September 2014 and July 2017.

Conclusions: The BEST program has been providing a critically needed service to older adults with mood disorders. Preliminary data show that most patients improve while in BEST. Traditional outpatient mental health often struggles with being able to cover the costs. Using a mix of individual and group services has narrowed the gap between expenditures and expenses.

This research was funded by: clinical value improvement grant, University of Pittsburgh Medical Center.

Poster Number: NR 26
Improving Competency in the Care of the Older Transgender Patient: A Case Study
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Introduction: On Lok Lifeways (On Lok), the original Program of All-inclusive Care for the Elderly (PACE), has been providing comprehensive medical and support services to nursing home eligible seniors in the San Francisco Bay Area for the past 45 years. San Francisco is well known for its large lesbian, gay, bisexual, and transgender (LGBT) community. Despite the openness of the community, members of the LGBT population continue to experience discrimination and harassment. Older LGBT adults face particular challenges due to the culmination of years of experience with discrimination, stigma, trauma, and inadequate access to appropriate medical care. We propose a poster using a case study of a transgender On Lok patient and the steps mental health providers took to design and implement a novel staff-wide educational program focused on the appropriate care of transgender patients.

Transgender people have consistently been found to be among the most marginalized members of the LGBT community. Epidemiologists, public health experts, social scientists, and advocacy organizations have increasingly documented the extremely high burden of discrimination, harassment, and stigma that transgender people face in virtually all areas of their lives, including in the health care setting. Qualitative research suggests that both male-to-female and female-to-male individuals face pervasive employment, housing, and health care discrimination. Other studies also report high rates of harassment, violence, and physical assault. Mental health issues, including depression and substance abuse, are also prevalent in the transgender community. Unfortunately, most health care providers and allied professionals receive minimal or no training in competently working with transgender patients.

Methods: As the transgender population in San Francisco ages and becomes eligible for PACE participation, On Lok providers and staff have had to focus on increasing their competency in working with this group of disadvantaged elders. In 2017, the On Lok mental health providers took the initiative to design and implement a psychoeducational program for medical staff and the interdisciplinary professional team focused on increasing staff’s knowledge of and comfort with working with elderly transgender patients.

Results: This poster presentation illustrates the many challenges that medical, mental health and other professionals face serving transgender seniors in the community. What follows is a case study that demonstrates the main concerns that surfaced for a particular transgender patient and for professional staff participating in his/her care. This case also elucidates the role of mental health providers in designing and implementing a psychoeducational program for medical and other professionals regarding challenges unique to transgender seniors.
Conclusions: This case study summarizes the challenges and successes in providing care for older transgender patient. The designed psychoeducational program emphasized confidentiality, appropriate and preferred terminology for transgender patients, and sensitive communication. The program also assisted staff in the difficult task of examining their personal assumptions and attitudes about transgender people. Treatment guidelines and standard of care recommendations were also provided to the interdisciplinary teams of professionals. The mental health issues experienced by transgender seniors were discussed together with the treatment approaches employed by mental health provider.

Poster Number: NR 27
No Need to Count Sheep: Investigating an Online Insomnia Intervention among Older Adults
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Introduction: The most prevalent sleep disorder in adulthood is insomnia, a condition defined by difficulties with sleep quality, sleep quantity, and reports of subjective distress. Older adults experience the highest rates of insomnia and experience a high burden of disease, such as higher risk of physical and chronic illness, increased risk of anxiety and depression, cognitive dysfunction, low energy, high healthcare costs, and overall lower quality of life. Given the potentially deleterious effects of insomnia on driving, fall risk, physical and psychological health, and general well-being, it is clear that early detection and treatment of insomnia is important.

Currently, pharmacotherapy and psychotherapy are the two most common insomnia treatments. While the use of pharmacotherapy confers immediate and reliable results, concerns have arisen regarding the effects of long-term use and problems with accidents, falls, dependence and abuse, polypharmacy, and insomnia symptom rebound problems following discontinuation, particularly in older adults. Per the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults, older adults no longer receiving reimbursement for select sleep medications may increasingly rely on alternative treatment options, such as behavioral psychotherapy. Such treatments, including cognitive-behavioral therapy for insomnia (CBTi), confer fewer side effects, longer-lasting benefits, and appear to be more preferable over pharmacotherapy. Stimulus control therapy (SCT), an evidence-based treatment, is a component of CBTi and seeks to restructure and strengthen associations between the bedroom and sleep through specific operant techniques. Past research has illustrated that online sleep interventions, such as CBTi, significantly reduce insomnia symptoms. However, given the prevalence of access barriers, brief online interventions for individuals with insomnia are sorely needed. Importantly, older adults are also becoming more popular Internet users, which allows for the potential of online sleep treatments that would reduce barriers and access problems.

The purpose of the current study is to investigate the effects of an online video intervention (SCT) over time (baseline, 1-week, and 1-month measurements) on insomnia symptoms, sleepiness, fatigue, anxiety, depression, stress, sleep self-efficacy, and quality of life in a sample of older adults (≥60 years old) compared to a sleep hygiene education (SH) control. SH, another element of CBTi, involves assessing factors that may be contributing to insomnia (e.g., caffeine and alcohol use). Although healthcare providers educate their patients more about SH than any other treatment, SH is only mildly effective. It is expected that SCT participants will show reduced insomnia, depressive, and anxious symptoms and increased sleep self-efficacy and quality of life compared to SH participants, who are expected to show small or no improvements in sleep or mood. Over time, for SCT participants but not SH participants, it is expected that the greatest changes will occur between pre-survey and 1-week followed by continued but smaller improvements from 1-week to 1-month follow-ups.

Methods: The present study is ongoing (current N = 43). Participant recruitment sources include a large research registry, email list serves of older adults, mental health providers locally and nationally, jury duty pools, word-of-mouth, and flyers posted locally. After a brief phone screen, eligible participants (who score 15 ≤ on the Insomnia Severity Index and 6 ≥ on the Short Blessed Test) receive email instructions for completing the pre-survey, 1-week survey, and 1-month survey and watching the video (SCT or SH) following pre-survey completion.

Results: A series of repeated-measures mixed ANOVAs and chi-square tests were completed. Results indicate that, thus far, there is a significant main effect for time (p < .05) for sleep self-efficacy, fatigue, depression, and quality of life such that all participants reported the most improvement from 1-week to 1-month, except for sleep self-efficacy in which participants showed greatest improvement from pre-survey to 1-week. Posthoc analyses reveal a significant difference between SCT and SH for stress such that SH participants reported more stress, p < .05; no other significant differences between groups were found. Lastly, a significant interaction for anxiety revealed that SCT participants’ anxiety increased then decreased from 1-week to 1-month whereas SH participants’ anxiety decreased then increased from 1-week to 1-month, p < .01.

Conclusions: Study implications and plans for continued recruitment will be discussed.
Sham Validation in Transcranial Magnetic Stimulation
Kalpana P. Padala, MD; Vaishali Thombre; Richard A. Dennis, PhD; Mark S. Mennemeier; Shelly Y. Lensing, MS; Prasad R. Padala, MD

Introduction: Devising sham treatment for repetitive Transcranial Magnetic Stimulation (rTMS) studies has been problematic. A reliable sham coil needs to produce cutaneous electric stimulation, and noise related to electrical discharge indistinguishable from the active coil. Initially investigators used to tilt the coil 45 to 90 degrees from the scalp to produce a sham treatment, which enabled both subjects and TMS operators to know the treatment allocation. Later investigators used scalp electrodes to mimic the cutaneous sensation associated with treatment. We used Neurostar Xplor system in a double blind sham controlled rTMS protocol for the management of apathy in patients with Alzheimer’s dementia. The Neurostar Xplor system consists of Xplor standard treatment coil, a blinded active coil, a blinded sham coil, a quick release hub, enhanced coil connector, coil cart and the acoustic blinding hardware. Our objective was to assess the integrity of the sham treatment by recording subject’s, caregiver’s and operator’s perception of whether they think that the subject received sham or active treatment. We further checked if the perception of coil assignment had an impact on outcomes.

Methods: Baseline assessments included measures of memory, behavioral problems, functioning and caregiver burden. Subjects received daily treatments for 4 weeks with either rTMS or sham coil for a total of 20 treatments. Neither the subjects nor the investigators knew which treatment the subject received. Subjects, their caregivers and the rTMS operators were asked to guess as to which treatment was received by the subject and commit the confidence in their guess. Options for coil assignment were active coil, sham, and ‘don’t know’. Choices for confidence in their guess ranged from 25–100%.

Results: Twenty community dwelling subjects with Alzheimer’s dementia and their caregivers were recruited. All but one completed the study. Mean age was 76.7 (±7.3) years, 90% were Caucasian and 10% were female. Mean Mini Mental Status Examination (MMSE) score was 22.7 (±2.9), and Apathy Evaluation Scale-Clinician version (AES-C) was 49.1 (±7.7) at baseline. Majority of the subjects guessed that they were getting the real treatment (68%). Only four thought that they did not know which treatment they received and two thought that they received sham. Perception of having received the rTMS treatment did not influence the outcomes. 31% of those that guessed to have received the active treatment, had worsening of the primary outcome measure and their average % improvement in apathy was 9.7% compared to 14.3% in the group that guessed sham treatment and 11.2% that could not guess which treatment they received. Only 26% of the time the subjects, caregivers and the operators agreed on the guestimate of coil assignment and interestingly on all instances they thought the coil assignment was active coil.

Conclusions: It may be reliable to conduct sham controlled rTMS studies. In this study, the perception of coil assignment does not seem to influence outcome on the apathy scale.

This research was funded by: VISN 16 Pilot research grants (KPP, PRP) Neuronetics supplies only (PRP).

Physical Health Problems as a Late-Life Suicide Precipitant: Examination of Coroner/Medical Examiner and Law Enforcement Reports
Namkee G. Choi, PhD; Diana M. DiNitto, MSW, PhD; Carl N. Marti, PhD; Yeates Conwell, MD

Introduction: In light of high late-life suicide rates, we compared older suicide decedents with and without physical health problems as a suicide precipitant with respect to their clinical characteristics and suicide means. While health problems, real or perceived, are known to be associated with elevated suicide risk in late life, more research on the ways physical health problems, along with depression and other life stressors, contribute to older adults’ suicidal behaviors is needed to develop targeted and effective suicide prevention strategies.

Methods: The National Violent Death Reporting System, 2005–2014, provided data. We first examined all records of death resulting from suicide (n = 111,534, after excluding decedents who were also suspects of multiple homicides) between 2005 and 2014 to compare age group differences in the rates of health problems as a suicide precipitant. Then, we focused on
decedents aged 65 + during the same period (n = 16,924). Quantitative data were analyzed using logistic regression models with physical health problems as a suicide precipitant as the dependent variable and depressive symptoms, other precipitating/risk factors, and suicide means (firearms, hanging/suffocation, overdose, and other) as the independent variables. We also examined health-related concerns noted in summary coroner/medical examiner or law-enforcement (CME/LE) reports using content analysis and descriptive statistics.

**Results:** Those aged 65 + were 15.2% of all suicide decedents in the 2005–2014 NVDRS, and 50.4% of these older decedents (60.2% of those aged 85+) had physical health problems recorded as a suicide precipitant, compared to 23.3% of 50–64 year olds and 11.8% of 30–49 year olds, both men and women, compared to those without, those with physical health problems recorded as a precipitant were more likely to have had depressed mood (AOR=2.39, 95% CI=2.21–2.59 for men; AOR=1.79, 95% CI=1.50–2.14 for women), disclosed suicide intent (AOR=1.94, 95% CI=1.78–2.11 for men; AOR=2.04, 95% CI=1.68–2.48 for women), and left a suicide note (AOR=1.66, 95% CI=1.53–1.80 for men; AOR=2.22, 95% CI=1.88–2.63 for women). As for suicide means, both men and women who had physical health problems were more likely to have used firearms (AOR=1.63, 95% CI=1.40–1.89 for men; AOR=1.77, 95% CI=1.35–2.31 for women). In CME/LE reports, pain (from cancer, other diseases, arthritis, and other musculoskeletal conditions) was mentioned as a reason for ending their lives in 27.9% of male decedents and 37.0% of female decedents’ cases, and cancer was noted in 29.8% of male decedents and 18.5% of female decedents’ cases. Pain contents revealed dependency related to the inability to endure chronic/unremitting pain any longer. Dementia-related cognitive and functional decline (7.0% of both male and female cases), fear of becoming a burden to loved ones (4.4% of all cases; 6.4% in the 85 + age group), refusal of nursing homes, and loss of independence were also mentioned.

**Conclusions:** The validity of proxy-derived or suicide-note based data on health problems may be questionable, as health problems may have been perceived and psychosomatic (influenced by depression and/or other affective or cognitive disorders) rather than diagnosed. Precipitating/risk factors based on CME/LE reports could also have been subject to interpretation and attribution bias. Despite these limitations, study findings call for more targeted, intensive suicide prevention strategies for older adults suffering from debilitating and painful health conditions. Training healthcare providers and informal support systems to assess suicide risk and in evidence-based intervention plans/guidelines is needed. Healthcare providers also need to optimize treatment of pain and other physical symptoms that decrease quality of life and increase older adults’ suicidal ideations. More important, the public health crisis of late-life suicides requires systemic attention and effective social policies for the aging population including increased resources for quality long-term and palliative care. We need more programs that provide assistance to mitigate the feelings of hopelessness and perceived burdensomeness that many older adults with debilitating physical conditions and associated emotional distress experience.

**Poster Number: NR 30**

**Long-Term Effects of Valbenazine on Tardive Dyskinesia in Older and Younger Adults**

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**Introduction:** Valbenazine, a highly selective vesicular monoamine transporter 2 (VMAT2) inhibitor, is FDA-approved for treating tardive dyskinesia (TD) in adults, regardless of age. Older patients are at higher risk for developing TD when exposed to antipsychotics or other dopamine receptor blocking agents, and the impact of age on TD treatment outcomes remains largely unknown. To evaluate the long-term effects of once-daily valbenazine on TD in older patients, subgroup analyses by age (<55 years, ≥55 years) were conducted in participants who received long-term valbenazine in clinical trials. The age cut-off was set at 55 years because the life expectancy of patients with schizophrenia is shorter by an average of 10 years, and their medical and cognitive comorbidities bring them to geriatric psychiatrists at a relatively young age.

**Methods:** Data were pooled from the following studies: KINECT 3 (NCT02274558: 80 or 40 mg, 6-week double-blind, placebo controlled period, 42-week double-blind extension period); KINECT 4 (NCT02405091: 80 or 40 mg, 48-week open-label treatment). Participants were divided into either a low dose (40 mg) or a high dose (80 mg) valbenazine group. Subgroups were defined by age at baseline (younger, <55 years; older, ≥55 years). Efficacy assessments at Week 48 (end of valbenazine treatment) and Week 52 (end of 4-week washout period) included mean change from baseline in the Abnormal Involuntary Movement Scale (AIMS) total score (sum of items 1–7) and AIMS response (250% total score reduction from baseline).

**Results:** This analysis compared change in TD (AIMS total score) in 167 younger participants (<55 years) and 262 older participants (≥55 years). At Week 48, mean change from baseline in AIMS total score indicated TD improvement regardless of
age: younger (40 mg, -2.1; 80 mg, -4.9); older (40 mg, -3.6; 80 mg, -4.8). After washout (Week 52), mean change from baseline in AIMS total score returned toward baseline in both age groups: younger (40 mg, -0.9; 80 mg, -2.1); older (40 mg, -1.9; 80 mg, -2.2). At Week 48, rates of AIMS response (≥ 50% total score reduction from baseline) were as follows: younger (40 mg, 19.2%; 80 mg, 52.2%); older (40 mg, 35.3%; 80 mg, 53.8%). After washout, AIMS response rates decreased across both age groups and valbenazine doses: younger (40 mg, 9.4%; 80 mg, 26.5%); older (40 mg, 18.8%; 80 mg, 25.5%).

**Conclusions:** In adults with TD who received up to 48 weeks of once-daily valbenazine, the magnitude of response and proportion of those with a clear AIMS response was similar for both younger (<55 years) and older (≥55 years) participants. These data indicate that valbenazine is efficacious in treating TD regardless of age.

**This research was funded by:** This research was fully funded by Neurocrine Biosciences, Inc.

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**Pharmacokinetics of Valbenazine and Its Active Metabolite by Age Group**

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**Introduction:** Valbenazine is a highly selective vesicular monoamine transporter 2 (VMAT2) inhibitor that is FDA-approved for treating tardive dyskinesia (TD) in adults, regardless of age. The pharmacokinetics (PK) of many therapeutics is altered with aging. Therefore, the PK of valbenazine and its active metabolite, (+)-α dihydrotetrabenazine ([+]-α-HTBZ), was compared in older (≥255 years) and younger (<55 years) participants.

**Methods:** In a single-center, open-label clinical trial, a single 25 mg valbenazine capsule was administered to 12 younger participants (mean age, 37.3 years; age range, 20–48 years) and 10 older participants (mean age, 71.1 years; age range, 65–82 years) following an overnight fast. Both groups had an equal proportion of males and females. Plasma concentrations of valbenazine and (+)-α-HTBZ prior to and out to 120 hours post-dosing were determined using a validated method. Valbenazine and (+)-α-HTBZ PK parameters were determined using standard non-compartmental methods. Since (+)-α-HTBZ exposure is affected by cytochrome P450 2D6 (CYP2D6) genotype, poor (PM) or intermediate (IM) CYP2D6 metabolizers were reported separately from the analysis and comparisons were restricted to participants with a CYP2D6 extensive metabolizer genotype. Valbenazine and (+)-α-HTBZ PK parameters in older participants were compared to respective values in younger participants using t-tests.

**Results:** All participants completed the study. Two older participants (one PM and one IM) were reported separately from the analysis due to their CYP2D6 genotype; valbenazine and (+)-α-HTBZ exposures in these participants were similar to that observed in younger IM and PM participants in prior studies. Mean (±SD) plasma concentration profiles for valbenazine and (+)-α-HTBZ were similar, regardless of age. There were no statistically-significant differences in peak (C_{max}) and overall (AUC_{0-inf}) valbenazine exposure between older and younger participants: older (C_{max}, 165 [± 70.9] ng/mL; AUC_{0-inf}, 1583 [± 366] ng*h/mL); younger (C_{max}, 131 [± 55.9] ng/mL; AUC_{0-inf}, 1330 [± 420] ng*h/mL). Similarly, there were no significant differences in (+)-α-HTBZ C_{max} and AUC_{0-inf} between the two age groups: older (C_{max}, 4.91 [± 1.45] ng/mL; AUC_{0-inf}, 202 [± 78] ng*h/mL); younger (C_{max}, 5.16 [± 1.40] ng/mL; AUC_{0-inf}, 158 [± 38] ng*h/mL).

**Conclusions:** The PK of valbenazine and (+)-α-HTBZ were similar in older and younger participants. Based on its PK properties, valbenazine age-based dose adjustments are not required.

**This research was funded by:** This research was fully funded by Neurocrine Biosciences, Inc.
Introduction: Valbenazine, a highly selective vesicular monoamine transporter 2 (VMAT2) inhibitor, is FDA-approved for treating tardive dyskinesia (TD) in adults, regardless of age. However, psychiatric disorders (e.g., schizophrenia, mood disorder) may be more difficult to treat in older patients, and this group may also have a higher risk for developing TD and drug-induced parkinsonism when exposed to antipsychotics and other dopamine receptor blocking agents. To evaluate the safety and tolerability of valbenazine in older patients, subgroup analyses by age (<55 years, ≥55 years) were conducted in participants who received long-term valbenazine in clinical trials. The age cut-off was set at 55 years because the lifespan of patients with schizophrenia is shortened by an average of 10 years and their medical and cognitive comorbidities bring them to geriatric psychiatrists at a relatively young age.

Methods: Data were pooled from the following studies: KINECT (NCT01688037: 50 mg/day, 6-week double-blind placebo-controlled [DBPC] period, 6-week open-label treatment period); KINECT 3 (NCT02274558: 80 or 40 mg/day, 6-week DBPC period, 42-week double-blind extension period); KINECT 4 (NCT02405091: 80 or 40 mg/day, 48-week open-label treatment). All valbenazine dose groups were pooled for the long-term safety analyses. Subgroups were defined by age at baseline (younger, <55 years; older, ≥55 years). Treatment-emergent adverse events (TEAEs) were recorded at every visit in all 3 studies. Safety assessments at Week 48 (end of valbenazine treatment) and Week 52 (end of 4-week washout period) were available for the 2 longer studies (KINECT 3, KINECT 4). These assessments included: treatment-emergent adverse events (TEAEs); Positive and Negative Syndrome Scale (PANSS) and Calgary Depression Scale for Schizophrenia (CDSS) (for participants with schizophrenia/schizoaffective disorder); Young Mania Rating Scale (YMRS) and Montgomery-Asberg Depression Rating Scale (MADRS) (for participants with mood disorder); Barnes Akathisia Rating Scale (BARS) and Simpson-Angus Scale (SAS); clinical laboratory tests, vital signs, and electrocardiograms (ECGs). Emergence of suicidal ideation or behavior was monitored using the Columbia-Suicide Severity Rating Scale (C-SSRS).

Results: The long-term safety analysis included 167 younger participants (<55 years) and 262 older participants (≥55 years). Approximately 50% of participants in both subgroups received a higher (80 mg) dose of valbenazine (<55 years, 52.7%; ≥55 years, 54.2%). The summary of TEAEs was as follows: younger (any TEAE, 59.3%; serious TEAE, 9.6%; TEAE leading to discontinuation, 10.2%); older (any TEAE, 73.7%; serious TEAE, 18.7%; TEAE leading to discontinuation, 19.1%). The 2 most common TEAEs in both subgroups were headache (younger, 6.6%; older, 8.8%) and urinary tract infection (younger, 6.6%, older, 8.4%). Psychiatric stability was generally maintained in both subgroups, as indicated by mean changes from baseline to Week 48 in psychiatric scales: younger (PANSS total, -1.0; PANSS positive symptoms, 0.0; PANSS negative symptoms, -0.2; YMRS, -0.8; MADRS, -0.5); older (PANSS total, -4.6; PANSS positive symptoms, -1.4; PANSS negative symptoms, -0.5; YMRS, -0.4; MADRS, -1.1). Mean psychiatric score changes after washout (Week 52) were generally similar to the mean score changes at Week 48. Mean score changes from baseline to Weeks 48 and 52 in the BARS and SAS indicated a low risk for treatment-emergent akathisia and parkinsonism in both older and younger participants. No clinically relevant changes were observed in clinical laboratory parameters, vital signs, and ECGs. Treatment with valbenazine did not appear to increase the risk of suicidal ideation or behavior.

Conclusions: Valbenazine was well tolerated in adults with TD who received up to 48 weeks of treatment, although TEAEs occurred more frequently in the older subgroup (≥55 years) than in the younger subgroup (<55 years). There was no apparent worsening of schizophrenia/schizoaffective disorder or mood disorder in either subgroup during long-term treatment or after washout. There was no significant increase in treatment-emergent akathisia, parkinsonism, or suicidality.

This research was funded by: This research was fully funded by Neurocrine Biosciences, Inc.
Here we report a case of CJD with a complicated presentation which led to an initial possible diagnosis of Conversion disorder and psychiatric admission. The patient presented with rapid decline in vision which due to her prior history of depression was thought to be a conversion disorder.

Methods: A 73 year old married woman was referred to the Emergency department for evaluation of poor vision and personality changes.

Her symptoms started over a course of 4–5 months, where she was noted to be forgetful and “clumsy”, bumping into furniture while walking. Her family noticed significant changes from being a happy and outgoing person to withdrawn and irritable. She was an exceptional “knitter” but noted to be “undexterous and butter fingered”. She had a history of depression which was diagnosed in 2006 close to her retirement. She was being treated with SSRI, Sertraline and intermittently with Alprazolam for anxiety. She had no history of panic attacks or conversion in the past. Rapidly over the course of a few weeks, her symptoms progressed and she was noted to be staring blankly into space and had occasional flinging movements of her arms and legs. These symptoms were ignored by the family as they believed she was “throwing a tantrum”. During this time her daily activities became increasingly chaotic.

She was seen by her primary care and was prescribed a higher dose of antidepressant along with scheduled dose of anxiolytic. She complained of vision disturbances and was referred to an ophthalmologist. Though no ocular pathology was noted, there was documented visual loss by perimetry testing. The patient was sent to ER by her ophthalmologist because she had left hemianopia and complete loss of vision in her right eye. Psychiatry was consulted in the ER where she had an otherwise negative medical evaluation.

Finally she was admitted under the psychiatry service with a differential diagnosis of Conversion disorder, adjustment disorder or atypical depression. On mental status exam she was cognitively compromised and appeared to be significantly depressed.

Once again, complete laboratory workup was unremarkable. Physical exam showed poor visual acuity and posturing in upper extremity. She was given 4 mg of Ativan for possible conversion disorder but showed no benefit. She was deteriorating, incoherent, agitated and depressed. EEG was grossly abnormal and revealed periodic lateralizing epileptiform discharges (PLEDS). She was transferred to the ICU for non-convulsive status epilepticus. CSF studies were unremarkable. Tentative diagnosis of encephalopathy was made, CSF was sent for 14-3-3 protein and NMDA receptor antibody. Her hospital course was rapidly downhill until her death in less than a month.

Results: This case illustrates how the presence of a prior psychiatric condition can cloud consideration of an uncommon neurological diagnosis. The literature has consistently warned that between 10–20% of all presumed conversion diagnosis eventually are found to have a medical cause. Progressive changes in the perimetry test would have been difficult to explain as a conversion presentation. The abnormal EEG provided the critical missing piece in moving the diagnosis back to the neurological domain and the presence of the 14-3-3 protein supported the diagnosis for CJD. Definitive diagnosis is only obtained by biopsy or at autopsy—which did not occur in this case. In reviewing the literature for CJD we were surprised to find that a substantial minority of cases (25%) can present with visual changes at the onset.

Conclusions: Two features of this presentation that are particularly relevant for clinicians include

1) The ease at which a cognitive error can occur in assuming that a condition that initially has no obvious medical etiology must thus be a psychiatric condition.
2) Creutzfeldt Jakob disease can present in ways that can look psychiatric or ophthalmologic and may not initially present to a neurologist.
**Results:** Most commonly prescribed single opioid treatments were hydrocodone (53.8%), oxycodone (28.8%) and morphine (5.5%). Urine samples were negative for the opioid medication prescribed in 37.2% of patients and ranged from 37.9% at ages 65–70 to 34.0% at ages ≥85 (aOR 0.78; 95% CI, 0.73–0.84). Compared to those with Medicare, potential nonadherence rates were higher for patients with Medicaid (45.4% vs 37.4%; aOR 1.45; 95% CI, 1.32–1.59). Treatment drug was associated with potential nonadherence rates: compared to hydrocodone (44.8%), rates were lower for those treated with oxycodone (27.7%; aOR 0.48; 95% CI, 0.46–0.50) and morphine (8.4%; aOR 0.12; 95% CI, 0.10–0.13).

**Conclusions:** Understanding factors associated with potential nonadherence among geriatric patients prescribed opioids may better inform strategies for using urine drug testing to manage these patients.

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**Poster Number: NR 35**

**When a Benzodiazepine Can Help Save a Life: Periodic and Malignant Catatonia in an Aging Veteran**

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**Introduction:** Background: Catatonia is a syndrome defined by immobility, rigidity, mutism, posturing, stupor, negativism, staring, and echolalia. This syndrome is commonly associated with psychiatric disorders but can also be associated with neurologic and general medical illnesses. Catatonia can be further categorized into subtypes such as malignant catatonia (MC), a rare but fulminant and progressive type of catatonia characterized by autonomic instability. MC shares clinical and pathophysiological features with other syndromes such as Neuroleptic Malignant Syndrome (NMS). Thus, diagnosis of MC can be delayed, which increases morbidity and mortality. Furthermore, catatonia can be periodic, meaning symptoms can occur, then resolve but later return. Literature suggests that the interval time between episodes of periodic catatonia varies from 4.5 to 20 months with the average interval being 10.7 months. Current evidence supports benzodiazepines and electroconvulsive therapy (ECT) as the standard treatment for the various forms of catatonia.

**Methods:** Case Description: This case describes a 69-year-old Caucasian male veteran diagnosed with Parkinson’s Disease; Major Depressive Disorder, Recurrent, Severe (MDD); Post-Traumatic Stress Disorder (PTSD); and Major Neurocognitive Disorder due to Parkinson’s Disease. He was hospitalized eleven times over nine years for exacerbation of psychotic symptoms, most likely related to his Parkinson’s Disease, often accompanied by severe major depressive episodes.

**Results:** During his seventh hospitalization he developed his first episode of catatonia which resolved with oral lorazepam and thirteen ECT treatments. He later developed MC during his tenth and eleventh hospitalizations. The autonomic instability during his first episode of MC resolved within 24 hours after IV lorazepam, and the other catatonic symptoms resolved after twenty ECT treatments. His second episode of MC was diagnosed early, as it was suspected, given the previous episode. The autonomic instability resolved within 24 hours with IV lorazepam, and the other catatonic symptoms resolved with seven ECT treatments.

**Conclusions:** Discussion: There is limited evidence exploring the risks of developing catatonia in the presence of chronic, comorbid psychiatric and neurologic conditions. In this case, the patient had multiple psychiatric and neurologic diagnoses often associated with catatonia. Additionally, there is little data is available on the likelihood of catatonia recurring or prevention of periodic catatonia. However, evidence does support the standard treatment for catatonia: benzodiazepines and ECT. Early intervention with IV lorazepam and ECT were initiated when this patient presented with his second episode of MC, which led to resolution of malignant symptoms within 24 hours and all symptoms within seven ECT treatments. In an era where psychiatric treatment and training in psychopharmacology often precludes benzodiazepine use, it is important to include this life-saving treatment in cases such as MC.

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**Poster Number: NR 36**

**Utility of Intravenous Ketamine as an Alternative, Effective Depression Treatment for Hospitalized Patients Unable to Receive Electroconvulsive Therapy Due to Medical Risks**

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Introduction: Ketamine has emerged as a safe and effective treatment option for treatment refractory depression (TRD) and suicidal ideation. Electroconvulsive therapy (ECT) is a well established treatment for refractory depression, but this treatment is often deferred or terminated before response due to tolerability or medical concerns.

Methods: We present a case series of TRD patients who were unable to receive ECT and offered intravenous ketamine at a dose of 0.5 mg/kg infused over the course of forty minutes for up to 3 treatment sessions within two weeks. Most of these patients were hospitalized older patients with sufficient medical conditions that increased ECT risks.

Results: Ketamine appears to be a safe and effective alternative for these patients, leading to resolution of suicidality, adherence to antidepressant treatment, and prompt hospital discharge.

Conclusions: In conclusion, for TRD patients unable to undergo ECT, availability of intravenous ketamine, as an adjunct to an ECT service, can not only avert the prospect of a prolonged and costly course of hospitalization, but also quickly improve patients’ quality of life.