What If Everything You’ve Been Told About Aging Was Wrong? CHAMPions for Disrupting Aging!

On **Wednesday, April 5, 2017**, San José State University’s Center for Healthy Aging and Multicultural Populations (CHAMP) held its **student research poster session** in conjunction with the **Changing Aging Tour** led by Dr. Bill Thomas, the visionary spirit behind The Eden Alternative. Dr. Thomas is an international authority on geriatric medicine and eldercare, a renowned speaker, and an award-winning author. The 33-city tour was brought to San Jose by the Santa Clara County Department of Adult & Aging Services (DAAS).

About 200 people were at the Montgomery Theater in downtown San Jose for the Changing Aging Tour which consisted of two performances: *Disrupt Dementia* and *Life’s Most Dangerous Game*. Both were non-fiction theater experiences weaving film, music and first-person stories with research. The goal of the program was to focus on what we can all learn from people living with dementia, and to highlight groundbreaking insights on aging and care. Students were given free tickets to the performances.

SJSU was one of 15 universities selected to receive a small grant from the Gerontological Society of America to participate in the Careers in Aging Week which is a national event designed to bring awareness to careers in aging. Thus, during the interactive Lobby experience held between the two performances SJSU student/faculty teams from five different disciplines presented their research posters and visited the informational booths set up by a variety of agencies such as Kaiser Permanente, Health Trust, Alzheimer’s Association, Holiday Retirement, & Institute on Aging) that provide internship and work opportunities for our students. Research topics generally focused on interventions to address Mild Cognitive Impairment and caregiver strain.
The research topics and the faculty advisors were: (see abstracts below)

- Does exercise influence brain health and memory performance in older adults? (Valerie Carr, Psychology)
- Sleep Quality and Sensory Processing Patterns in Community Dwelling Older Adults (Megan Chang, Occupational Therapy)
- Mild Cognitive Impairment: A review of interventions & programs (Sadhna Diwan, Social Work)
- Effects of Mild Cognitive Impairment on Linguistic Communication (Nidhi Mahendra, Communicative Disorders)
- Culturally Tailoring a Psychoeducational Program to Reduce Stress and Depression among Vietnamese American Dementia Caregivers (Van Ta Park, Health Science & Recreation)

The CHAMP partnership with DAAS and the Changing Aging Tour offered SJSU students a wonderful opportunity to learn about creative and humanistic ways to approach aging. The Lobby experience gave them a chance to practice their communication skills through presenting their research projects to the attendees, learn about the role of multiple disciplines and the array of community services available to promote wellness and healthy aging.
Poster # 1

Title: Does exercise influence brain health and memory performance in older adults?

Student Authors: Nicole Henderson, Lucy Khuu, David Han
Faculty Advisor: Valerie Carr, PhD; Department: Psychology

Abstract:
Older adults experience impairments in memory ranging from mild to clinically significant, but the underlying factors contributing to this variability remain unclear. This research examines the influence of physical activity on memory in older adults. Prior research demonstrates that episodic memory, or memory for events, is particularly vulnerable to age-related decline, and that the brain region supporting episodic memory, the medial temporal lobe, also declines with age. Studies in rodents suggest that aerobic exercise not only increases the size of the medial temporal lobe, but also improves performance on tests of memory. It remains unclear whether such effects can also be found in humans. We hypothesized that sedentary older adults would have worse episodic memory performance than their physically active peers, and that the medial temporal lobe would show greater atrophy in sedentary elders than in active elders. Initial analyses suggest a relationship between amount of regular physical activity and size of specific subfields of the medial temporal lobe, such that greater physical activity is associated with greater subfield size. This research can deepen our understanding of how lifestyle factors contribute to age-related memory decline, and whether engaging in regular exercise can reduce this decline.

Poster # 2

Title: Sleep Quality and Sensory Processing Patterns in Community Dwelling Older Adults

Student Authors: Megan Sadou, Stephanie Loh, Sarah Mcdonald, Barbara Moran, Diana Nguy
Faculty Advisor: Megan Chang, PhD, OTR/L; Department: Occupational Therapy

Abstract:
This study explores sleep quality and sensory processing among older adults over 60 years. An estimated 28% to 43% of American community-dwelling older adults experience symptoms of insomnia. Sleep loss is related to mortality in older adults and places them at risk for falls, cognitive deficits, and difficulties with social or occupational engagement. Studies have shown that sensory processing patterns associated with sleep problems. However, limited evidence is available for older adults, despite knowledge that sensory processing patterns change with old age. This literature review outlines present knowledge about sleep quality and sensory processing phenomena as they apply to community-dwelling older adults. Further research on this topic may provide evidence for the development of sensory-based interventions in occupational therapy to improve sleep in older clients.
**Poster # 3**

**Title:** Mild Cognitive Impairment: A review of multidisciplinary interventions

**Student Authors:** Anita Amador, Adam Casarez, Elisa Ramírez, Tess Totte  
**Faculty Advisor:** Sadhna Diwan, PhD; **Department:** School of Social Work

**Abstract:**  
Mild Cognitive Impairment (MCI) is a mild yet noticeable and measurable change in thinking abilities that doesn’t affect one’s ability to carry out everyday activities. About 15-20 percent of people age 65+ have MCI and 35% of those diagnosed with MCI develop Alzheimer’s disease within 5 years. This study presents a review of the evidence-based literature from multiple disciplines on MCI interventions (exercise, meditation & mindfulness, cognitive retraining through games/tests) through a comprehensive search and analysis of the intervention literature and preliminary results of a survey of community-based programs offering MCI interventions. Findings will guide current and future social workers in providing effective interventions to assist this large and growing population.

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**Poster # 4**

**Title:** Effects of Mild Cognitive Impairment on Linguistic Communication

**Student Authors:** Monika Ifah (CSU-East Bay), Holly Zargham (SJSU)  
**Faculty Advisor:** Nidhi Mahendra, Ph.D., CCC-SLP; **Department:** Communicative Disorders & Sciences

**Abstract:**  
Mild cognitive impairment or MCI is widely understood as a preclinical condition that raises the odds that a person might go on to develop the clinical syndrome of dementia. As distinct types of MCI have been identified, there is evidence that cognitive functions besides memory also are affected. In this ongoing study, we are using a comprehensive language battery to study the effects of MCI on linguistic communication tasks, recognized as important cognitive biomarkers. We are directly comparing the performance of persons with MCI to healthy young and older controls assessed 7 persons with MCI and compared their performance to healthy young and older controls, and to existing published norms for performance of persons with Alzheimer’s disease on these same tasks.

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**Poster # 5**

**Title:** Culturally Tailoring a Psychoeducational Program to Reduce Stress and Depression among Vietnamese American Dementia Caregivers

**Student Authors:** Quyen N. Vuong  
**Faculty Advisor:** Van Ta-Park, PhD; **Department:** Health Science & Recreation

**Abstract:**  
About 5.4 million older adults in the US suffer from dementia and more than two thirds of these elders are helped by friend or family caregivers. While many caregivers experience stress, depression and other mental health issues, these challenges are even worse for Asian immigrants who face language barriers as well as the need to uphold cultural and traditional values and practices. This study describes the implementation of a culturally tailored psycho-educational intervention to reduce stress and depression among Vietnamese caregivers. The specific issues facing this population, the tailoring of the program for cultural relevance, and issues related to implementation will be discussed.