A Measurement Burst Approach for Operationalizing and Understanding Variability Markers of Cognitive Aging

Stuart W. MacDonald¹, Robert S. Stawski²

1. Centre on Aging, Victoria, BC, Canada.
2. Oregon State University, Corvallis, OR, United States.

Individual Symposium Abstract (Required; Limit 150 Words): Increasing intraindividual variability (IIV) across reaction time (RT) trials of cognitive tasks share systematic links to aging processes (cognitive and physiological deficits), neurodegenerative pathology (Alzheimer’s disease), and brain injury. However, few studies have systematically compared competing operationalizations of variability, decomposed RT variability into labile or stable components, or identified corresponding moderators. We employ data from select measurement burst studies to compare common variability definitions (coefficient of variation, raw and residualized within-person standard deviation), and examine psychosocial and health predictors of RT variability. Preliminary findings demonstrate RT variability both within- and between-persons (ICC range = .34 -.79), and important differences between definitions of variability. Further, psychosocial and health moderators are uniquely associated with slower RT mean and greater RT variability, reflecting potential modifiable risk factors impacting cognitive and brain health. Discussion will focus on the implications of competing variability operationalizations and corresponding moderators for improving our understanding of cognitive aging.
**New Social and Economic Realities of Aging: Opportunities and Crises**

Richard A. Settersten\(^1\), Jacqueline Angel\(^2\)

1. Human Development & Family Sciences, Oregon State University, Corvallis, OR, United States.
2. University of Texas at Austin, Austin, TX, United States.

Profound changes in social and economic contexts in the United States and throughout the world have dramatically altered the experiences and meanings of aging. On the social side, we illustrate how the life course has been reconfigured via the shifting boundaries and markers of life periods; the erosion of traditional pathways through education, work, and retirement; and the circumstances and choices of younger cohorts, which differ significantly from past cohorts. We also describe the growing diversity of family and social relationships; their new strengths, vulnerabilities, and ambiguities; and their effects on social support, health, and intergenerational financial exchanges. On the economic side, we illustrate the growing contingencies of retirement for some individuals and groups, and concerns related to public economies and the viability of aging policies and programs. We emphasize the significance of particular policies and programs as levers for both responding to new realities and preparing for the future.

---

**Session Title:** Ambient Independence Measures for Guiding Care Transitions  
**Session Type:** Symposium  
**Location:** Room 208AB (CC) (Walter E. Washington Convention Center)

**Start Time:** WEDNESDAY, NOVEMBER 05, 2014, 2:30 PM - 4:00 PM

---

**Predicting Transitions to Higher Levels of Care among Elderly: A Behavioral Approach**

Daniel Austin\(^1\), Robin M. Cross\(^3\), Peter Jacobs\(^2\), Nora C. Mattek\(^1\), Johanna Petersen\(^2\), Katherine Wild\(^1\), Jeffrey Kaye\(^1\)

1. Neurology, Oregon Health & Science University, Portland, OR, United States.  
2. Oregon Health & Science University, Portland, OR, United States.  
3. Oregon State University, Corvallis, OR, United States.

Using data collected wirelessly from passive infrared sensors and everyday devices (pill box, phones, computers) strategically installed in the home, we measure and fuse behavioral data collected across multiple key functional areas (activity and mobility, sleep, medication adherence, physiologic trends, and socialization) with traditional standardized clinical assessments and weekly Internet-based self-report data from 150 elders living independently. The data is used to build predictive models such as mixed effects...
logistic regression models to determine the individual and group factors associated with increased probability of transitioning to higher levels of care. Our working hypothesis is that slower walking speed, less activity, poor sleep and medication adherence, fluctuating weight, and decreased socialization will be important predictors of the need for higher levels of care in the elderly population. These then would be the focus of more informed real-time proactive care planning.

**Session Title:** The Interrelated Trajectories of Function and Mortality  
**Session Type:** Symposium  
**Location:** Liberty Salon P (M) (Washington Marriott Marquis)  
**Start Time:** WEDNESDAY, NOVEMBER 05, 2014, 4:30 PM – 6:00 PM

**The Interrelated Trajectories of Function and Mortality**

Michelle Odden¹, Elsa S. Strotmeyer², Heather Whitson³  

¹. Oregon State University, Corvallis, OR, United States.  
². University of Pittsburgh, Pittsburgh, PA, United States.  
³. Duke University, Durham, NC, United States.

Functional status and mortality are both critical metrics of the aging process. Yet, the complex relationships between demographics characteristics and chronic conditions with the interrelated trajectories of function and mortality are not fully understood. We explore multifaceted contributors to function and mortality, from the basic epidemiology to the impact on healthcare utilization and costs, in the Cardiovascular Health Study (CHS). CHS is a community-based cohort of 5,888 black and white adults aged >65 years (58% women; 16% black; mean age 72.8 ± 5.6) enrolled in 1989-99 with 10 years of annual examinations, and continuing surveillance for events and functional status. First, we describe incident disability and mortality rates across age, race, and sex to understand the interrelated nature of these demographic trends. Second, we examine a novel multisystem physiologic impairment score and gait speed decline, which is associated with higher mortality risk. Third, we show that functional limitation modifies the association of blood pressure to cardiovascular outcomes and death. Fourth, we explore how changes in multiple aspects of functional status may differentially influence inpatient and outpatient healthcare utilization and costs. Overall, these topics illustrate the importance of trajectories in physical and cognitive function above and beyond their association with mortality. We demonstrate that trajectories to functional decline and mortality are influenced by disease characteristics at earlier time points in older age. The discussant will integrate the topics and indicate future directions to further characterize the interrelated trends in function and mortality, with the goal of improving population health.
Age, Race and Gender Factors in Incident Disability

Mini E. Jacob¹, Michelle Odden², Robert Boudreau¹, Alice Arnold³, Anne B. Newman¹

1. Epidemiology, University of Pittsburgh, Pittsburgh, PA, United States.
2. Oregon State University, Corvallis, OR, United States.

We assessed disability incidence rates; understanding these by age, sex and race is important for targeting prevention. Disability was defined in 4 ways: 1) self-report of inability in any of 6 ADLs, 2) difficulty in any ADL, 3) difficulty in any of 6 IADLs, and 4) mobility limitation (difficulty walking half a mile or climbing 10 steps). Incident disability and mortality rates were calculated for age, gender and race groups over 6 years. The incidence of ADL inability, ADL difficulty, IADL difficulty and mobility limitation were 1.0(0.8-1.1), 8.5(8.1-8.9), 12(11.4-12.5) and 11.2(10.6-11.7) per 100 person-years. Women, older age-groups (per 5 years) and Blacks had higher rates in all four domains. Despite 33.8% higher incident ADL difficulty (9.5 versus 7.1 per100 person-years) and 24.1% higher ADL inability, women had 44% lower mortality rate compared with men. Our results indicate that higher disability rates in women occur in concert with lower mortality rates.

Disability Modifies the Association of Diastolic Blood Pressure with Cardiovascular Events

Carmen Peralta¹, Ronit Katz², Anne B. Newman³, Bruce Psaty², Michelle Odden⁴

2. University of Washington, Seattle, WA, United States.
3. University of Pittsburgh, Pittsburgh, PA, United States.
4. Oregon State University, Corvallis, OR, United States.

Mixed findings exist regarding the role diastolic blood pressure (DBP) in cardiovascular (CV) risk in elders. We hypothesized that poor health status, assessed by limitations in activities of daily living (ADL), could identify elders at greater risk for harms associated with low DBP. Adjudicated incident CV events (N=778) and deaths (N=1,289) were collected over 9 years. Among persons with ADL limitation (N=415), higher DBP was associated with a reduction in CV events; hazard ratio = 0.49 (95% confidence interval: 0.25-0.94) and 0.65 (0.44-0.96) for DBP >80 and 80-66, respectively, vs. ≤ 65 mmHg, after adjustment for demographic, physiologic variables, and medication use. There was no association between DBP and CV events in persons without ADL limitation (N=1,946). Those with ADL limitation had the lowest risk of mortality at DBP 80-66 mmHg. Low DBP among those with ADL limitation is associated with higher CV risk and death.
Utilization of Internet-based Resources for Disease Self-care among Women with Chronic Conditions

Joelle Pettus¹, Matthew L. Smith¹, SangNam Ahn³, Carolyn A. Mendez-Luck⁴, Samuel D. Towne², Marcia G. Ory²

¹. College of Public Health, The University of Georgia, Athens, GA, United States.
². Texas A&M Health Science Center, College Station, TX, United States.
³. The University of Memphis, Memphis, TN, United States.
⁴. Oregon State University, Corvallis, OR, United States.

This study analyzed data collected from middle-aged and older adult women with one or more chronic conditions who completed the National Council on Aging Chronic Care Survey. Part One analyzed data from 418 women to describe sociodemographics, disease types, and healthcare utilization associated with internet use. Part Two analyzed data from the 251 internet-using women to identify the online self-care resources they used and for what purposes. Methods: Participant characteristics were compared by age group, number of chronic conditions, and disease types (i.e., cardiovascular disease, diabetes, arthritis, lung disease, depression, and cancer) using chi-square tests, independent sample t-tests, and one-way ANOVA. Results: Approximately 31% of participants were age 65+, 30% reported having three or more chronic condition types, and 65% reported using the internet. A significantly larger proportion of non-internet users reported needing help learning what to do to manage their health conditions and how to care for their health conditions. Among only internet-using women, 18.7% participated in online discussions/chatrooms/listserv and 45.2% read about the experiences of others with chronic diseases. A significantly larger proportion of internet-using women with diabetes and depression reported needing help learning how to manage their health conditions. Larger proportions of internet-using women with depression reported relying on the internet for help/support and interest in reading about others’ experiences online. Conclusions: Understanding internet use among women with chronic conditions can inform targeted efforts to increase internet availability, educate potential users about the benefits of online resources, and tailor internet-based materials to meet self-care needs.
Session Title: Navigating the Complexity of Daily Life: The Interplay of Emotional, Health, Interpersonal, and Cognitive Processes

Session Type: Symposium

Location: Room 206 (CC) (Walter E. Washington Convention Center)

Start Time: THURSDAY, NOVEMBER 06, 2014, 8:00 AM – 9:30 AM

**Navigating the Complexity of Daily Life: The Interplay of Emotional, Health, Interpersonal, and Cognitive Processes**

Shannon Mejia¹, Helena Chui², Nilam Ram³

1. School of Social and Behavioral Health Sciences, Oregon State University, Corvallis, OR, United States.
2. University of Bradford, Bradford, Yorkshire, United Kingdom.
3. Pennsylvania State University, State College, PA, United States.

Action theories of life-span development assume individuals’ capacity to simultaneously regulate multiple life domains. Successfully regulating affect, health, and relationships, however, hinges on the ability to integrate complex information from multiple sources, and to transform that knowledge into action. This symposium brings together a collection of papers that exemplify the interplay of health, emotions, and decision-making across the lifespan. The session begins by illustrating how positive and negative affect are intertwined with one’s own and spouse’s daily physical symptoms. Chui and Diehl explore themes of risk and resiliency by examining age-related change in the coupling of daily reports of physical symptoms and self-esteem with negative affect across 7 days. Ho, Michalowski, Gerstorf, and Hoppmann consider the interpersonal dynamics of health and emotions. Their paper examines the dyadic coupling of affect, physical symptoms, and spousal support of couples across 27 measurements over 9 days. The second half of the symposium considers aspects of decision-making, beginning with interpreting visualizations of data that represent progress towards health and social goals. Mejía, Oscar, Allen, Hooker, and Metoyer examine age-related differences in the cost and benefit of matching and mismatching the complexity data visualizations to the complexity of inquiries. Gonzalez, Smith, and Ryan then connect health, emotions, and decision-making by building on their model of daily activity selection, where the selection of daily activities is framed as a decision problem, to predict physical and mental health outcomes. Nilam Ram integrates the papers by leading a discussion on the interplay of within-person processes and feedback loops.

**Age Differences in the Cost and Benefit of Visualizations That (mis)Match the Complexity of Inquiry**

Shannon Mejía¹, Nels Oscar², Pamela M. Allen¹, Karen Hooker¹, Ronald Metoyer²
Decision-making requires efficiently interpreting complex information and data visualizations that match the complexity of inquiry. This study uses data from the web-based EvaDaVis study (N = 1871, Mean age: 33, Range: 18 - 81) to examine age-related differences in the benefit of adapting visualizations to match the complexity of the inquiry. Using a 4 (Visualization: 2 simple vs. 2 complex) x 2 (tasks: find value vs. relate values) x 2 (Matching complexity: match vs. mismatch) design, we examined participants’ accuracy and response time of visualization interpretation under two sequences: a simple inquiry mismatched with a complex visualization (s2c) and a complex inquiry mismatched with a simple visualization (c2s). Consistent with classical studies of cognitive aging, age was associated with accuracy under both sequences, but at the cost of time. Under the c2s sequence older adults were quicker to identify oversimplified visualizations to be insufficient to answer complex inquiries.

Session Title: Successful Aging I

Session Type: Poster

Location: Exhibit Hall D (CC) (Walter E. Washington Convention Center)

Start Time: THURSDAY, NOVEMBER 06, 2014, 11:45 AM – 2:45 PM

Five-year Trajectories of Psychological Well-being among Late Midlife U.S. Adults: Significance of Gender and Educational Correlates

Han-Jung Ko1, Karen Hooker1

Research has shown significant sociodemographic correlates and decreasing trends in eudemonic well-being between adult groups (Ryff & Singer, 2008). However, results are mostly from cross-sectional studies. We examined how five-year trajectories in Psychological Well-Being (PWB) differed by midlife adults’ gender and education. Data were from the Foley Longitudinal Study of Adulthood, in which 163 White and African American adults in the greater Chicago area have been surveyed since 2008 (Mean Age= 56.38, SD= 1.00). The sample was composed of 64% females, and 43.6% had graduate degrees, 23.9% had college degrees, 27.0% some college education, and 5.5% were high school graduates. Multilevel modeling was used to investigate the association between gender and education with
psychological well-being dimensions (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance). Results showed quadratic trajectories in four dimensions, except for linear trajectory in purpose in life and cubic trajectory in autonomy. Females reported higher well-being than males across all dimensions, except for autonomy. Such gender difference was significantly increased over time for two dimensions, self-acceptance and personal growth. Compared to those with graduate degrees, those with high school degrees had lower, inverted U-shape trajectories in self-acceptance, personal growth, and positive relations with others. Those with college degrees reported consistently lower sense of self-acceptance, personal growth, and autonomy than those with graduate degrees. However, education was not related to trajectories in environmental mastery and purpose in life. The findings underscore that opportunities across trajectories of well-being are not equally distributed by sociodemographic factors.

---

**Session Title: Methodological Issues in Aging Research**

**Session Type: Poster**

**Location: Exhibit Hall D (CC) (Walter E. Washington Convention Center)**

**Start Time:** THURSDAY, NOVEMBER 06, 2014, 11:45 AM – 2:45 PM

---

**Measurement Invariance Testing of a Multidimensional Scale of Attitudes Toward Older Adults in Taiwanese and American College Students**

Pamela M. Allen¹, Han-Jung Ko¹, Karen Hooker¹

1. School of Social and Behavioral Health Sciences, Oregon State University, Corvallis, OR, United States.

Previous research has produced mixed findings about the relative positivity of aging stereotypes in Asia and the United States, and one underexplored explanation is that cross cultural differences are domain specific. We examined the utility of one measurement tool for drawing these comparisons across domains by adapting the Older Person Scale (OPS; developed in Taiwan, Lu & Kao, 2009) for use in English and examining its psychometric properties of partial measurement invariance across two samples of Taiwanese (N=658) and American (N=936) college students. The 35-item OPS assesses four domains: Physical (5 items), Psychological (10 items), Relationship (15 items), and Employment (5 items). However, confirmatory factor analyses did not support the four-factor model as suggested by the original scale model in either sample. Analyses of each domain separately demonstrate invariance for the Physical, Psychological, and Relationship domains constrained for equality of factor loadings across culture groups. In particular, the Physical domain items exhibit the strongest measurement properties for both groups. Items from the Psychological and Relationship domains required substantial revisions to the measurement model to achieve equality of factor loadings across groups. The Employment domain performs poorly for the American sample. Even after excluding poorly performing items, our findings suggest that items from this scale are not tapping the higher order construct of attitudes toward older adults in the hypothesized four domains.
for Taiwanese or American college students in this study. Results suggest that some items may have different meanings between Taiwanese and American cultural contexts.

**Session Title:** Epidemiology of Aging Interest Group Symposium: Epidemiology of Frailty, Disease Burden, and Late-Life Care: Insights for Health Care and Policy  
**Session Type:** Symposium  
**Location:** Room 207B (CC) (Walter E. Washington Convention Center)  
**Start Time:** FRIDAY, NOVEMBER 07, 2014, 8:00 AM – 9:30 AM

---

**A Social Approach to End of Life Care is Associated with Fewer Hospital Days in the Final Months of Life**

Shannon Mejía¹, Michelle Odden², Karen Hooker¹, Lydia Lundberg³

1. School of Social and Behavioral Health Sciences, Oregon State University, Corvallis, OR, United States.  
2. School of Biological and Population Health Sciences, Oregon State University, Corvallis, OR, United States.  
3. Elite Care Residential Care Communities, Portland, OR, United States.

Minimizing time spent in the hospital is a preferred outcome for individuals at the end of life. We compare days spent in the hospital during the last 6 months of life among residents of a social model care facility (N = 90) with a nationally representative sample of community (N = 330) and long term care (N = 187) residing respondents from the 2008 and 2010 Health and Retirement Study using a zero-inflated negative binomial regression. Residents in the social model care facility spent fewer days in the hospital in the final six months of life than community and long term care facility residing individuals, adjusted for age, gender, number of diagnoses, and activities of daily living limitations; mean hospital days and 95% confidence interval: .60 (.20, 1.36); 6.17 (1.21, 15.21), p < .001; 7.37 (1.24, 16.43), p < .001; respectively. The mechanisms underlying these findings deserve further consideration.

---

**Session Title:** Social Isolation, Networks and Support  
**Session Type:** Poster  
**Location:** Exhibit Hall D (CC) (Walter E. Washington Convention Center)
Late Midlife Purpose in Life: Distinct Patterns of Trajectories and Psychosocial Predictors

Han-Jung Ko, Karen Hooker, G. John Geldhof

1. School of Social and Behavioral Health Sciences, Oregon State University, Corvallis, OR, United States

Research has indicated a significant age difference in purpose in life in which older adults showed lower scores than young and middle-aged adults (Ryff & Singer, 2008), but patterns of purpose in life trajectories during late midlife are unknown. Knowledge of such patterns could enhance understanding of purposeful development in later life. We examined purpose in life trajectories over five years and the significance of baseline psychosocial characteristics in predicting such trajectories. Data were from the Foley Longitudinal Study of Adulthood, a longitudinal study of personality and life stories in late midlife among White and African American middle-class adults. There were 151 participants aged 55-58 at baseline. Purpose in life was assessed each year with the PIL subscale of the Psychological Well-Being scale from 2008 to 2013. Growth mixture modeling results indicated two classes of PIL trajectories (LRT = 111.06, p=.003; BLRT= 113.07, p< .001; Entropy= .873. The majority (75%) started higher and then showed a decreasing PIL trajectory (intercept= 4.29; slope= -.10, p=.04); the other class (25%) started lower and remained stable (intercept= 2.98; slope= -.02, p=.85). The odds ratio of being in the higher-decreasing versus low-stable class is 1.439 (p=.04) for one-unit increase in conscientiousness, adjusting for gender, race, neuroticism, extraversion, and generativity. However, contrary to the theoretical importance of generativity in midlife (Erikson, 1963; McAdams & de St. Aubin, 1992), generativity and related personality traits did not significantly predict class membership. The importance of conscientiousness in contributing to the higher-decreasing pattern of PIL trajectory will be discussed.
Are There Long-term Benefits of Military Service?

Avron Spiro¹,², Richard A. Settersten³, Carolyn M. Aldwin³

¹. MAVERIC/NAS, VA Boston, Boston, MA, United States.
². Boston University, Boston, MA, United States.
³. Oregon State University, Corvallis, OR, United States.

Most evidence on the effects of military service focuses on short-term negative consequences, especially mental and physical injuries for those deployed to war zones. In contrast, lifespan studies surprisingly reveal long-term effects – both early effects that grow over time and new ones that emerge later. These effects, which exist in a variety of domains of health and well-being, have been found in aging veterans of WWII and the Korean War, and are now being found in veterans of the Vietnam War. There are individual differences in these long-term effects, as well as changes over time within individuals. Each war also has unique characteristics and contexts that modify these effects. We synthesize and evaluate evidence for long-term benefits of service for veterans of different wars, offer possible explanations, and set an agenda for dedicated inquiry into both positive and negative long-term effects of military service on aging and health.

Prevalence and Tenure of Military Service among Older Adults: Findings from the Health and Retirement Study (HRS)

Robert S. Stawski¹, Gwenith G. Fisher², Chenkai Wu¹

¹. Oregon State University, Corvallis, OR, United States.
². Colorado State University, Fort Collins, CO, United States.

Investigating the impact of military service is important for understanding the effects of major early life experiences and transitions on later-life outcomes. The current study examined the prevalence and tenure of military service among older adults (age 50+), drawing on data from four cohorts of the Health and Retirement Study: HRS Cohort (born 1931-1941), AHEAD (born <1924), Children of the Depression (CODA: born 1924-1930) and the War Baby Cohort (WB: born 1942-1947). Of the 23,691 participants represented across these cohorts 26.5% of HRS, 20.8% of AHEAD, 25.9% of CODA, and 24.6% of WB respondents identified as having served in the military. Average tenure of service was 4.1 years (range 0-37) across all cohorts. Furthermore, on average respondents with military service have 5-7 waves (10-14 years) of longitudinal data (range 1-10 waves). Thus, HRS is a rich resource for examining the impact of military service on health and wellbeing in aging.
**Do Religiousness and Spirituality have Differing Pathways to Mortality? Testing the Self-Regulation Model in Congestive Heart Failure Patients**

Crystal Park\(^1\), Carolyn M. Aldwin\(^2\), Soyoung Choun\(^2\), Login George\(^1\)

1. University of Connecticut, Storrs, CT, United States.
2. Oregon State University, Corvallis, OR, United States.

We tested a recently proposed self-regulation model of the effects of religiousness and spirituality on health by examining mortality in a prospective study of 191 congestive heart failure patients (64% male; Mage = 68.6 years, SD = 10.1) followed for five years. Effects of religiousness (e.g., service attendance) were expected to occur through behavioral self-regulation of health habits and adherence, while the effects of spirituality (e.g., self-transcendence) were expected to be mediated via emotional regulation, reflected in positive and negative affect. The model was partially supported: Controlling for age and health status, religiousness was unrelated to mortality, but spirituality had a protective effect, decreasing mortality risk by 70%. Effects of religiousness on mortality were weak and indirect through health behaviors, while effects of spirituality on mortality were direct as well as partially mediated by depressed affect. Spirituality appears to be an important independent protective factor in this very ill sample.
Most type 2 diabetes interventions focus on self-management and thus fall short for diabetic older adults who rely on their families to help them manage the disease. The purpose of this study was to develop and test the feasibility of a culturally appropriate diabetes intervention for Mexican-origin older adults and their primary caregivers to improve the dyad’s communication and negotiation of diabetes management. The intervention was developed from formative research with Mexican-origin caregiver-care receiver dyads. Thirty-six dyads completed a six-week program of one-on-one sessions with a trained program facilitator. The curriculum consisted of communication skill building and dyad decision-making on lifestyle changes to improve care receivers’ blood sugar levels. Preliminary results show that an intervention on building dyad cooperation and teamwork is acceptable to Mexican-origin diabetic older adults and their caregivers as well as a promising approach for effectively controlling type 2 diabetes among older Latinos with family caregivers.

---

**Session Title:** Emotions and Aging  
**Session Type:** Poster  
**Location:** Exhibit Hall D (CC) (Walter E. Washington Convention Center)  
**Start Time:** SATURDAY, NOVEMBER 08, 2014, 11:45 AM – 2:45 PM

**Loneliness in a Day: Activity Engagement, Time Alone, and Experienced Emotions**

Tara L. Queen¹, Robert S. Stawski², Lindsay Ryan³, Jacqui Smith³

1. Department of Psychology, University of Utah, Salt Lake City, UT, United States.  
2. Oregon State University, Corvallis, OR, United States.  
3. University of Michigan, Ann Arbor, MI, United States.

Previous research has established that the experience of chronic loneliness is associated with poorer physical health and well-being, including declines in cardiovascular health and higher levels of distressed affect. The purpose of the current study was to obtain a more detailed picture of the experience of loneliness in midlife and older adulthood by incorporating the context of a day’s activities. We obtained a detailed picture of loneliness in midlife and older adulthood (age 50 – 96) by using a modified day reconstruction task to examine the activities in which middle age and older adults engage (such as work, exercise, socializing, watching television), the amount of time they spent alone, and the emotions experienced while engaging in a day’s activities. Lonelier individuals did not participate in different daily activities or spend more time alone during the day; however, loneliness was associated with engaging in more activities alone than with other people. In regards to emotional experiences, we report that daily activities yield a different profile of positive emotional experiences for lonelier individuals. The social context of daily activities was an important factor in understanding the effects of loneliness on experienced
negative emotions. The results of this study provide insight into the influence of loneliness on the structure of a day and context for understanding the emotional experiences of lonely older adults.

Session Title: Stress and Coping
Session Type: Poster
Location: Exhibit Hall D (CC) (Walter E. Washington Convention Center)
Start Time: SATURDAY, NOVEMBER 08, 2014, 11:45 AM – 2:45 PM

Changes and Stability of Stress-Related Growth over 5-Year: Findings from Davis Longitudinal Study

Xiaoyu Bi, Carolyn M. Aldwin
2. Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA, United States.
3. Human Development and Family Sciences, School of Social & Behavioral Health, College of Public Health & Human Sciences, Oregon State University, Corvallis, OR, United States.

Few studies have examined change and stability of stress-related growth (SRG) over time. The purpose of this study is to identify the number of classes based on SRG responses, and to examine how individuals make transitions across SRG classes over 5 years. Data were collected among 509 college alumni in both 1996 (T1) and 2001 (T2), Mage at T1 was 44.24, SD = 7.38. Latent class analyses (LCA) were used to identify number of classes of SRG for T1 and T2, separately. Latent transition analyses (LTA) were used to examine how individuals make transitions across SRG classes from T1 to T2. Two classes were found at both time points: high SRG (T1 61%, T2 66%) and low SRG (T1 39%, T2 34%). The LTA found four subclasses: stable low SRG (66%), from low to high SRG (34%), stable high SRG (83%), from high to low SRG (17%). More women and older individuals were in the stable high SRG subclass than in the stable low SRG subclass. Those in the low to high SRG subclass were older than those in the stable low SRG subclass. Women were less likely to transit from the high SRG class to the low SRG class. SRG showed high stability over 5 years, especially in the high SRG class. Women and older individuals were more likely to have stable high SRG over time. Further, older individuals were more likely to transit from low SRG to high SRG over time. This suggests that SRG increases with age.

Childhood Family Environment Affects Patterns of Hassles and Uplifts in Adulthood: The VA Normative Aging Study

Yu Jin Jeong, Carolyn M. Aldwin, Heidi Igarashi, Avron Spiro
2. Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA, United States.
3. Human Development and Family Sciences, School of Social & Behavioral Health, College of Public Health & Human Sciences, Oregon State University, Corvallis, OR, United States.
4. VA Palo Alto Health Care System, Menlo Park, CA, United States.
Childhood family experiences are important for well-being in later life. Those from cohesive families are more likely to enjoy good psychological health in adulthood, while those from highly conflicted families have poorer well-being. Childhood family experiences can also influence cognitive processes, with conflicted families resulting in more negative stress appraisals and poorer social skills. We investigated the effect of childhood family experiences on the longitudinal patterns of hassles and uplifts in older men (n=713) from the Normative Aging Study (Mage = 64.3; SD = 6.8). They completed the Family Environment Scale on their family of origin and current families in 1990. We related scores on family of origin to their patterns of hassles and uplift over 15 years, controlling for conflict and cohesiveness in their current family. Results showed that conflict scores in childhood were associated with pattern of hassles, with men who had the lowest level of hassles having lower conflict scores, compared to those with patterns indicating higher levels of hassles. In contrast, cohesion scores were associated with patterns of uplifts, with those having more uplifts on average reporting higher cohesion scores for family of origin. These findings suggest that negative family environments are related to more hassles in later life, whereas positive family experiences lead to more uplifts in later life.

---

**Does Spirituality Compensate For Low Mastery In Congestive Heart Failure?**

Mai Anh Nguyen¹, Carolyn M. Aldwin¹, Jeffrey Proulx¹, Crystal Park²

1. Oregon State University, Corvallis, OR, United States.
2. University of Connecticut, Storrs, CT, United States.

Congestive heart failure (CHF) is a chronic condition which is associated with poor quality of life, including diminished mastery in older adults, leading to higher rates of depression. Coping strategies for loss of perceived control include a search for meaning in life and reestablishment of control or mastery. In this study, we examined the interaction of spirituality and mastery on physical and mental health using data from the Religion/Spirituality and Congestive Heart Failure Study (Park, 2006). The participants in this study consisted of 189 CHF patients (121 men, 68 women) whose mean age was 68.65 (SD = 10.14). Mastery was measured by the Hope Scale
(Snyder et al., 1991), and spirituality by the Daily Spiritual Experiences Scale of the Brief Multidimensional Measures of Religiousness/Spirituality (BMMR/S; Fetzer, 1999). Mental and physical health outcomes were measured by 12-item Short-Form Health Survey (SF-12; Ware, Kosinski, Keller, 1996). We used mean scores of all scales and reverse coded these items when necessary in order to create scales in which higher scores indicated higher mastery, spirituality, and mental and physical health. Hierarchical multiple regression equations supported previous studies showing that high mastery predicted mental health, $\beta = 5.05$, $p < .05$, but the direct effect of spirituality was not significant. However, spirituality moderated the relationship between mastery and mental health, $\beta = -5.82$, $p < .05$. Spirituality did not moderate relationship between mastery and physical health. Thus, spirituality was a buffer and improved mental health in CHF patients with low mastery, but not physical health.

---

**Session Title:** Lost in Time Metrics: The Time Dimension in Current Life-Span and Gerontology Thinking and Research  
**Session Type:** Symposium  
**Location:** Room 204A (CC) (Walter E. Washington Convention Center)  
**Start Time:** SATURDAY, NOVEMBER 08, 2014, 5:00 PM – 6:30 PM

---

**Gerontology’s Uneasy Relationship with Chronological Age**  

Richard A. Settersten\(^1\)

1. Human Development & Family Sciences, Oregon State University, Corvallis, OR, United States.

Gerontology has an uneasy relationship with chronological age. On one hand, chronological age is viewed as inherently tied to aging as a property of people and social systems. It is automatically included in models. As a continuous variable, it is assumed to reflect maturation or be a proxy for a variety of statuses. Age-based standards of “normal” aging are available for many health indicators. As a categorical variable, it is assumed that members of an age group share a set of experiences that are distinct from adjacent groups. On the other hand, gerontologists have difficulty distinguishing between age and aging, and between aging and age-related disease. They are quick to point to heterogeneity and the fallibility of chronological age as an index, and they perpetuate the message that successful aging is about transcending age. Thought experiments and illustrations are used to critically examine the uses of chronological age in research.

---

**Session Title:** Adverse Life Conditions and Health across the Lifespan  
**Session Type:** Symposium
Adverse Life Conditions and Health across the Lifespan

Kelly E. Cichy¹, Tara L. Gruenewald³, Robert S. Stawski²

¹. Human Development and Family Studies, Kent State University, Kent, OH, United States.
². Oregon State University, Corvallis, OR, United States.
³. USC Davis, Los Angeles, CA, United States.

Across the lifespan, exposure to adverse life conditions creates a context where physiological systems and coping resources are repeatedly taxed, and these emotional and physiological assaults are hypothesized to create vulnerabilities and produce disruptions in psychosocial functioning and stress-responsive biological systems that have cascading consequences for adult mental, physical, and cognitive health. Although researchers speculate about how these processes unfold throughout adulthood, questions about the effects on health related to the type and timing of experienced adversities, remain. This symposium addresses these unanswered questions by considering how multiple sources of adversity uniquely and collectively shape a diverse set of adult outcomes. Friedman and colleagues examine how childhood adversities collectively shape three indicators of cardiometabolic health, including diabetes, heart disease, and obesity. Cichy, Li, and Woolverton examine the extent to which adult deficits in family support and strained family ties mediate associations between reports of childhood abuse and markers of cardiovascular risk. Toyokawa and colleagues explore how adverse childhood experiences and negative experiences within the parental role contribute to depressive symptoms for custodial grandparents. Fagundes and colleagues examine associations between childhood abuse, quality of life difficulties, and immune functioning among breast cancer survivors. Finally, Stawski, Fisher, Geldhof, and Wu explore how accumulating life events influence aging-related changes in depressive symptomatology. Together, these studies explore potential pathways through which adverse life experiences contribute to long-term health and well-being. Tara Gruenewald will reconcile the presentations and offer insights into how these research findings fit into and extend our understanding of adversity and health.

The Impact of Life Events and Education on Longitudinal Changes in Depressive Symptomatology in Adulthood and Old Age

Robert S. Stawski¹, Gwenith G. Fisher², G. John Geldhof¹, Chenkai Wu¹

¹. Oregon State University, Corvallis, OR, United States.
². Colorado State University, Fort Collins, CO, United States.

Life events and education have long been known to have a considerable impact on mental, physical and cognitive health; the former having deleterious effects and the latter, protective. Less is known about whether these factors contribute to long-term changes and trajectories of depressive symptomatology throughout adulthood and old age. The current study examines
whether the accumulation of life events and education influence aging-related changes in depressive symptomatology among older adults. Drawing on bi-annual longitudinal data from four cohorts of the Health and Retirement Study: HRS Cohort (born 1931-1941), AHEAD (born <1924), Children of the Depression (CODA: born 1924-1930) and the War Baby Cohort (WB: born 1942-1947), we observed significant longitudinal increases in depressive symptoms, particularly among the oldest ages and earliest born cohorts at baseline. Preliminary evidence also suggests that these effects are also exacerbated by the experience of life events, and attenuated by possessing higher levels of education.

Session Title: Wisdom and Optimal Aging? The Positive (and Negative) Aspects of Wisdom in Old Age
Session Type: Symposium
Location: Room 201 (CC) (Walter E. Washington Convention Center)
Start Time: SUNDAY, NOVEMBER 09, 2014, 10:00 AM - 11:30 AM

Emotion Regulation and Wisdom in Later Life

Heidi Igarashi¹, Michael Levenson¹, Carolyn M. Aldwin¹

1. School of Behavioral and Health Sciences, Oregon State University, Corvallis, OR, United States.

Regulation of positive and negative affect is an essential component of resilience and successful aging in later life (Carstensen et al., 2011). However, how positive and negative emotions work together to promote recovery and growth is not well understood. Semi-structured interviews were conducted with 50 men (n = 14) and women (n= 36), aged 56 - 91 years (M = 71.71; SD = 8.8). Participants described a challenging moment in their lives, coping strategies and attendant changes. Individuals were grouped into conservers, achievers and seekers based on their affect pattern and orientation towards personal growth and environmental mastery (Helson & Srivastiva, 2001). Most individuals reported some change, changing across typologies (e.g., conservers to achievers). Achievers described successful aging in hedonic terms, while seekers used eudaimonic ones (Friedman & Ryff, 2012). Mixed methods approaches were used to examine group differences in a self-report wisdom inventory (ASTI; Levenson et al., 2005).

Session Title: Personality Development in Old Age: Potentials and Challenges
Session Type: Symposium
Location: Room 202A (CC) (Walter E. Washington Convention Center)
Start Time: SUNDAY, NOVEMBER 09, 2014, 10:00 AM - 11:30 AM
Daily Affect and Goal Appraisal Processes: Hits and Surprising Misses with the Big 5 Personality Traits

Shannon Mejía¹, Soyoung Choun¹, Tuan Pham², Ronald Metoyer², Karen Hooker¹

1. School of Social and Behavioral Health Sciences, Oregon State University, Corvallis, OR, United States.
2. School of Electrical Engineering and Computer Science, Oregon State University, Corvallis, OR, United States

Personality is important for well-being in part by differentiating appraisals of goal achievement, where positive and negative affect signal individuals’ progress towards or away from meaningful goals. In this study, we examine the coupling of positive and negative affect with older adults’ daily goal progress in the health and social domains, and the extent to which personality traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness heighten or dampen these associations. We used data from the Personal Understanding of Life and Social Experiences (PULSE) project, a 100-day internet-based microlongitudinal study of self-regulatory processes among older adults. Multilevel models suggest positive affect positively covaries and negative affect negatively covaries with daily health and social goal progress. Neuroticism amplified these associations in the health and social domains, as did agreeableness but only in the social domain. We discuss how personality traits may canalize behaviors that shape daily goal processes and ultimately, our well-being.