

JUNE 2024

# GLOBAL AGING E-BRIEF

Newsletter from the Global Aging Community Initiative

## Global Aging Community Initiative Update

The most notable news over the last several months out of the Global Aging and Community Initiative (GACI) has to be a series of newly appearing publications that highlight the research being conducted by GACI affiliated scholars. We are particularly happy to see several publications authored and co-authored by students and post-docs that have been working on projects. Eva Ryan, a pre-doctoral researcher from University of Limerick in Ireland, worked on a paper on the causal association between chronic pain and mortality while visiting GACI last summer. This paper, co-authored with several GACI scholars, was just accepted in the journal PAIN. Using propensity score analyses, her research unexpectedly does not find a very strong causal connection between pain and mortality in data from the Health and Retirement Study. A paper by Dr. Zachary Zimmer, working together with GACI former post-doc Feinuo Sun and Master's student in the department of Family Studies & Gerontology at MSVU Amber Duynisveld, was recently accepted in the Journal of Gerontology: Medical Sciences. In this analysis using 'health expectancy methodology' the authors show that increasing life expectancy over more than twenty years in the U.S. is largely accounted for by increasing life lived with more mild and more severe pain. This, unfortunately, supports an 'expansion of morbidity' hypothesis; the idea that as we live longer lives, we are living more years with health problems. This, further endorses a need for more resources supporting healthy aging, especially for the longest lived, and more research to examine the mechanisms that lead to an expansion of morbidity. Finally, GACI Research Associate Sara Hamm has just recently received notice of acceptance of her paper that looks at how religiosity in childhood and later adulthood combine to influence health in later-life. This intriguing investigation shows some connections between consistent levels of high religiosity throughout life and mental health outcomes, although less connection between religiosity and levels of functional health. There is more about Sara coming up in this newsletter.

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The Global Aging and Community Initiative (GACI) is a research organization at Mount Saint Vincent University (MSVU), located within the Nova Scotia Center on Aging. It is directed by Dr. Zachary Zimmer, a Tier I Canada Research Chair and Professor of Family Studies and Gerontology. The GACI aims to create knowledge on issues related to the quality of life of older persons worldwide through collaborative research across a broad global scientific community. GACI is currently working on a number of research projects focusing on the health and well-being of older persons in different areas around the world. We currently list 32 collaborators from eight countries.



## Collaborator Profile: Melanie Martin

Researcher Melanie Martin of the Department of Anthropology at University of Washington is a key member of the Vietnam Health and Aging Study (VHAS) research team. Working primarily with the biomarker component of the study, Martin has recently completed analysis of hair cortisol data collected from the first two waves of the study.

Melanie is dedicated to unravelling the intricate relationship between environmental factors and human health. With a focus on growth and development, her research delves into the impacts of birth mode, breastfeeding, nutrition, and infectious diseases on individuals, particularly within small-scale Indigenous populations in South America. Employing minimally invasive biomarkers, Martin's studies shed light on nutritional status, immune responses, and hormonal and microbial development from infancy through adolescence.

Her research extends beyond early life influences, as mounting evidence suggests that environmental factors continue to shape health and aging throughout one's lifespan.

"I'm also developing new research focused on heat stress and adaptation among the Qom, a population indigenous to the Gran Chaco region of Argentina, one of the hottest regions of South America. We want to understand if they're experiencing heightened risks with the increasing number of extreme heat days due to climate change, but we'd also like to learn more about their perceptions of these changes, and the traditions that have helped them adapt to this environment," says Martin. Combined survey, biomarker, and qualitative data might help inform educational interventions in Qom communities, particularly for the elderly and other groups more vulnerable to heat-associated health risks, like pregnant and lactating women.

Regarding her work on VHAS, Martin says: "I hope to examine if past war trauma moderates relationships between current life stressors, health conditions, and hair cortisol levels, which provide a measure of average cortisol responses over the last month. This could provide some evidence for the lasting influence of early life stressors on current stress responses."

Driven by a passion for cultural diversity and environmental adaptation, Martin's academic journey reflects her commitment to anthropology and fieldwork. From her formative experiences in Florida and Puerto Rico to her current residence in Seattle, Martin draws inspiration from diverse environments and cultural traditions. With a profound appreciation for the Pacific Northwest's outdoor offerings, Martin cherishes moments spent exploring nature with her two children, instilling in them a love for adventure and literature.

As Martin continues to explore the intricate interplay between environment, culture, and health, her research promises to yield invaluable insights into human biology and population health disparities across the globe.



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-Melanie Martin-



# GACI SPOTLIGHT PROFILE

By Sara Hamm, GACI Research Associate

I'm currently working on two research projects that explore how early-life experiences influence our health and well-being in older adulthood.

The first project investigates how early-life wartime exposure affects productive aging. We are using a method called Latent Class Analysis (LCA) to identify different types of productive aging profiles within a sample of older Vietnamese adults, including aspects like employment, caregiving, family contributions, community engagement, and self-development. Our goal is to uncover the connections between military participation, wartime trauma, and diverse profiles of productive aging. We hope that this research will help us understand how traumatic events affect individuals' ability to contribute to their communities in older age, particularly in areas affected by conflict.

The second project uses data from the Health and Retirement Study to investigate the effects of religiosity in childhood and older adulthood on various health outcomes, such as depression, disability, and mortality. By categorizing individuals based on their religious attendance, religious identity, and spiritual identity, we aim to understand how religiosity across the life course is associated with health outcomes in older age. So far, our findings have highlighted the complex relationship between religiosity and psychological health, as well as mortality risk, suggesting that for some people consistent religiosity throughout life may be important to promote healthy aging.

While these two projects approach the aging experience from different perspectives – one focusing on wartime exposure and the other on religiosity – they both demonstrate how early-life experiences can come together to shape our older adulthood. It is my hope that the insights gleaned from these two projects will provide guidance to future interventions aimed at promoting the health and well-being of aging populations worldwide.

My interest in this research stems from a deep-seated curiosity about how early-life experiences can shape our older adulthood. It is fascinating to see how conditions and events during childhood can have enduring effects as we grow older. I have been particularly drawn to studying individuals who have faced significant hardships, such as war. The resilience and struggles these communities have experienced have been a huge motivating factor in understanding how these early-life experiences affect health, engagement, and overall well-being in older age.

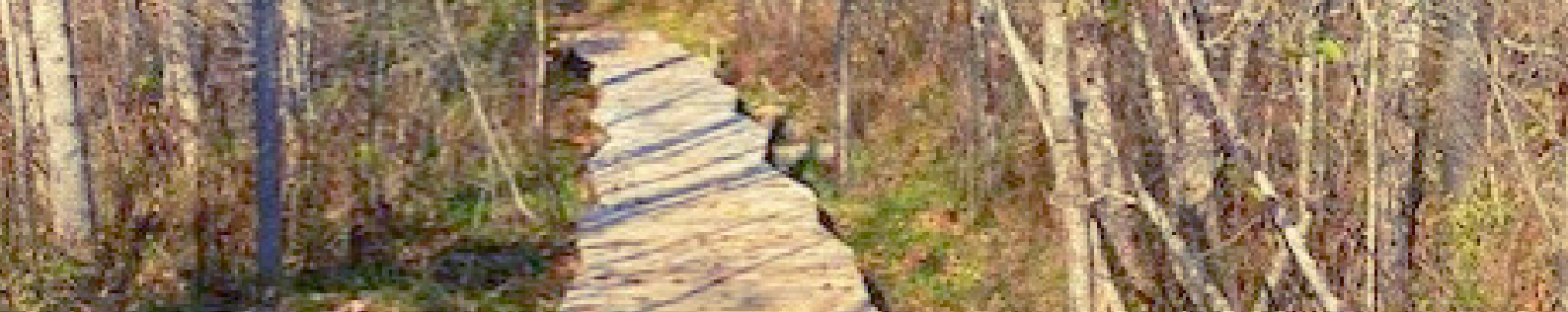
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**-Sara Hamm-**





## GACI Spotlight continued...

I am especially motivated by the opportunity to contribute to future policies and interventions that could mitigate the negative impacts of war and promote the health and well-being of individuals exposed to such circumstances, especially with the recent surge of global conflicts we've seen worldwide.

I earned my Bachelor of Science (Honours) in Psychology from Dalhousie University, where I gained a deep appreciation for human behaviour and psychological processes. Studying psychology in my undergraduate degree ignited a strong interest in applying psychological principles to real-world problems, particularly within the context of health and well-being.

After completing my bachelor's degree, I pursued a Master of Arts in Health Promotion. This program allowed me to explore how psychology intersects with public health, broadening my understanding of the societal, environmental, and policy factors that shape individual health outcomes. As I became more immersed in the field, my passion for it grew; I began to discover the vast potential for health promotion to create positive change within communities and healthcare systems.

My educational background has taught me that health is influenced by a variety of psychological, social, and environmental factors, making it an extremely complex and dynamic concept. The chance to contribute to building healthier, more resilient communities through research and intervention has been incredibly motivating. My educational experiences have equipped me with the tools I need to address health issues from a holistic perspective, with the aim of enhancing health and well-being at both individual and societal levels.

When I'm not working, I love to indulge in a range of activities that help me unwind and recharge. You can often find me reading a good fiction novel, trying out new crochet patterns, getting creative in the kitchen, or simply enjoying quality time with my two favourite felines, Gizmo and Leah. These activities are my go-to for maintaining healthy work-life balance. With a refreshed mind and spirit, I'm ready to tackle whatever challenges come my way.

## SELECTED PUBLICATIONS

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