

developed as a modular way for journals to encourage and/or require certain practices by authors before submitting. I will describe the TOP guidelines and will recount my experience in working to bring the Journals of Gerontology: Psychological Sciences to Level 1 of the TOP guidelines. Despite the challenges involved in changing journal practices to encourage and/or mandate greater use of open science practices, these changes will likely be coming to more journals in gerontology and beyond in the coming years, making it important for authors to be aware of changes in expectations and practices.

#### PREREGISTRATION TO FACILITATE A REPLICABLE SCIENCE OF AGING

Walter R. Boot<sup>1</sup>, *1. Florida State University, Tallahassee, Florida, United States*

Psychology and other sciences have been in the midst of a replication crisis. One proposal to address this crisis is the preregistration of studies, including study hypotheses, methods, measures, and analysis approaches to reduce false positive findings resulting from “experimenter degrees of freedom.” This talk will explore the benefits, and also the challenges, of preregistration, along with common misconceptions about preregistration. A preregistration case study will be presented involving a series of experiments exploring different hypotheses regarding the mechanism behind changes in attentional processing associated with aging (<http://doi.org/10.1525/collabra.26>). This talk will present a brief tutorial of how to preregister studies and where to preregister them. The importance of preregistration for intervention studies will be emphasized.

#### CHALLENGES IN PRE-REGISTRATION AND APPLYING OPEN SCIENCE PRINCIPLES WHEN USING SECONDARY OR LONGITUDINAL DATA

Daniel K. Mroczek<sup>1</sup>, *1. Northwestern University, Chicago, Illinois, United States*

The application of open science, preregistration, and transparency principle is challenging when using existing data, including ongoing long-term longitudinal data. The goal is to distinguish clearly between exploratory and confirmatory research, but in the context of archival or longitudinal work there are risks associated with prior knowledge that has been obtained from these secondary sources. That said, new principles are being developed, including specialized pre-registration templates, that can guide the application of open science and transparency ideas to longitudinal and other secondary data, thereby increasing credibility of such work. These include: 1) disclosure of prior knowledge about a given dataset, ranging from “never worked with these data” to having multiple publications, in the pre-registration, 2) use of hold-out subsamples that can be used for validation or confirmatory purposes, and 3) making more clear what research questions are exploratory and confirmatory.

#### PRE-REGISTERING QUALITATIVE RESEARCH: BENEFITS, UNINTENDED CONSEQUENCES, AND UNANSWERED QUESTIONS

Barbara Bowers<sup>1</sup>, *1. University of Wisconsin-Madison, School of Nursing, Madison, Wisconsin, United States*

While preregistration has gained increasing acceptance for quantitative, particularly experimental, studies, its relevance and implementation for qualitative research has only recently been proposed. This presentation provides an overview of the very recent and ongoing debate on the potential benefits and costs of implementing preregistration for qualitative research. The presentation summarizes the debates about whether and how preregistration will lead to greater transparency in qualitative research, explores the implications of preregistration for qualitative research, identifies some of the costs incurred in preregistering qualitative studies, describes the inaccurate assumptions about qualitative research that are repeatedly embedded in calls for preregistration, and identifies some likely, unintended consequences of adopting the same approaches employed or proposed for quantitative studies. Acknowledging the importance of greater transparency and reduced publication bias for all research, including qualitative studies, questions about transparency that qualitative researchers must urgently address are also suggested.

#### SESSION 2115 (SYMPOSIUM)

##### PRESIDENTIAL SYMPOSIUM: OPTIMIZING SURGICAL CARE FOR ALL OLDER ADULTS

Chair: Thomas Robinson, *University of Colorado, Aurora, Colorado, United States*

Co-Chair: Ronnie Rosenthal, *Yale School of Medicine, New Haven, Connecticut, United States*

Our program will provide a detailed overview with an emphasis on the research aspects of the new Coalition for Quality in Geriatric Surgery, a project supported by the American College of Surgeons and the John A. Hartford Foundation. This project is a national endeavor which aims to systematically improve the surgical care of older adults by establishing a verifiable quality improvement program with standards based on best evidence focused on what matters most to the individual patient. We believe there is a critical need for safe, high-quality, patient-centered surgical care for older adults. Aging surgical patients have unique physiological needs, social needs and unique goals of care. We formed the Coalition to help hospitals meet these rising needs by setting and verifying interdisciplinary standards and developing outcome measures that matter to older patients, families and caregivers. In collaboration with our 50+ stakeholder organizations, we have set the standards, developed measures that matter, educated providers and patients, and created awareness about the surgical needs of older adults at all hospitals through the program. The geriatric surgery program, set to launch in the Summer of 2019, will use the four principles of continuous quality improvement: set standards, define the right infrastructure, collect rigorous data, and verify. The program not only improves perioperative care, but also impacts the full cycle of care for older adults. Our group has harnessed the power of networks through partnership and collaboration of all disciplines involved in the peri-operative care of older adults.

##### CREATION OF EVIDENCE-BASED GERIATRIC SURGERY STANDARDS

Marcia McGory Russell<sup>1</sup>, *1. UCLA Medical Center, Los Angeles, California, United States*