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At the Intersection of Rigor and Equity: Health Disparities Research Related to Aging

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Abstract

Aging in the United States will be defined by differences in health and longevity among populations. Diversity among the aged population is expected to increase. While investigators must contend with generalizability to enhance rigor, biomedical research holds great promise in exploring determinants of health for populations groups. Biomedical research explores the impact of various determinants on health and longevity. Health disparities research related to aging serves as an important scientific approach for researchers to maintain clarity in generalizability, with a focus on a breadth of determinants in multiple levels of analysis. Moreover, health disparities research related to aging holds the biomedical research enterprise accountable to principles of equity for understanding and addresing the health and aging of disproportionately affected population groups in society.

Keywords

health disparities, minority aging, diversity, health determinants

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Aging in the United States is changing dramatically and much of the 21st century will be defined by differences in longevity among populations (Whitfield & Baker, 2014). Diversity among the aged population is expected to increase, with approximately 15 million older Hispanics, 10 million older African/African Americans, and 8 million older adults from other racial and ethnic groups in 2050 (Ortman, Velkoff, & Hogan, 2014). Although there has been narrowing in certain disparities like access to health care because of the Affordable Care Act (Griffith, Evans, & Bor, 2017), research on aging continues to document the existence of persistent health disparities among older demographic groups in the United States (Wallace, 2014). Although life expectancy may be increasing for all, gaps continue. In 2007, life expectancy at birth averaged 78.4 years for White Americans and 73.6 for Black Americans. Although disability rates are declining, older Black Americans have higher rates of disability in activities of daily living (Freedman & Spillman, 2016).

Biomedical research explores the impact of various determinants on health and longevity for populations groups living in society. These determinants include exposures in the physical environment, collective beliefs and norms among people that motivate health behaviors and biological processes. Although biomedical research can seek to link one determinant (e.g., smoking behavior) to a health outcome of interest (e.g., lung cancer), the most rigorous of this research seeks to understand relationships among determinants that establish pathways to disease risk and jeopardize health and longevity. Determinants may be organized as they relate to different levels of proximity to an individual, starting at biological processes and extending to behaviors and macro level factors in society that affect health (Alvidrez, 2019). This gives researchers a strategic approach to pursuing multilevel investigations that are broad and account for important environmental, social, and cultural determinants (Glymour & Manly, 2008). Moreover, this is critical for identifying malleable points along these pathways to make fundamental intervention for addressing disparities (Anderson, 1998).

While including a breadth of determinants at multiple levels of analysis may be important for biomedical research, researchers should also contend with the concept of generalizability in their research designs and analytic techniques. For example, designs that employ certain sampling techniques may not produce results that are generalizable to populations not well represented in the study sample. Although useful for the participants

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enrolled in the study, findings may not have public health relevance. Thus, it is important for biomedical researchers to be clear about the populations that will most benefit from the use of certain research designs and analytic techniques (Singleton & Straits, 1988).

One approach for clarifying this generalizability for biomedical research is to prioritize those in society that are disproportionately affected by diseases and health outcomes. Health disparities research related to aging serves as an important scientific approach for researchers to maintain clarity in generalizability, with a focus on a breadth of determinants in multiple levels of analysis. Defined as the study of biological, behavioral, sociocultural, and environmental factors that influence population-level health and longevity differences over the lifecourse, this research prioritizes populations that have been disproportionately affected by aging-related health outcomes like decreased longevity, dementia, multimorbidity, and disability (Hill, Pérez-Stable, Anderson, & Bernard, 2015). For example, African Americans are especially vulnerable to the development of Alzheimer's disease when compared with other racial/ethnic groups in the United States (McDonough, 2017). American Indians and Alaskan Natives are disproportionately affected by diabetes and adults with disabilities are more likely to have heart disease (Indian Health Service, 2018; Krahn, Walker, & Correa-De-Araujo, 2014; U.S. Department of Health and Human Services, 2014). This approach provides a clear rationale for analytic techniques and offers broad levels of analysis that include many determinants for hypothesizing pathways.

A health disparities approach to aging research may be guided by theoretical underpinnings to interpret multilevel pathways of determinants. For example, the synergistic effect of wear and tear on the body caused by dysregulated biological or behavioral systems responding to stress in the environment and the circumstance of having inadequate resources to cope represents a pathway for the interplay of determinants (Bagby, 2019) (Sibille, 2012). This complex interaction may lead to disparities over the lifecourse. Stress in the environment may be linked to historical factors that lead individuals and families to endure hardship with limited resources. This may result in financial strain, unemployment, underemployment, insufficient social networks, and inadequate health care over the lifecourse. Chronic illness, cognitive impairment, loneliness, and challenging life events increase the risk of depression and other mental health conditions in older populations (McEwen, 1998). Depression, in turn, may make management of chronic physical illnesses more difficult and diminish perceived quality of life (Kok, 2017). Populations disproportionately affected by these stressors also may be more vulnerable to mental health consequences because of disparities in health care access and utilization. For example, older African American men are less likely to seek out and receive treatment for depression (Mitchell, 2017). Although health care availability and quality are critical for accurate diagnosis and treatment of disease, this resource may be influenced by other determinants such as health insurance, quality of accessible nursing homes, and availability of hospice care. For example, immigrant populations that migrate to the United States may endure barriers to health care because of lack of insurance, not being eligible for government programs and limited access in their area. Furthermore, many immigrants suffer discrimination in health care settings and misdiagnosis of disease because of limited English proficiency, numeracy, health literacy and cultural awareness or styles in communication (Vargas, Fang, & Garza, 2012). Thus, the availability of important health-protecting resources over the lifecourse offers an important underpinning for interpreting pathways of determinants that create and sustain health disparities.

There is still much to explore and learn about determinants at various levels of analysis that place population groups at risk of diminished health and longevity. The investigations in this special issue of *Gerontology and Geriatric Medicine* highlight important determinants for rigorous health disparities research related to aging. Key determinants like stress conceptualized as racial discrimination and sociocultural factors that influence HIV knowledge and behavior are explored in this special issue. Moreover, these articles prioritize racial/ethnic and immigrant populations who have historically endured social, economic, and environmental disadvantage. This disadvantage has exposed these groups to determinants that jeopardize population health and longevity. Hence, this special issue offers analyses that have multilevel breadth and clarity of generalizability. Research of this type—that focuses on these disproportionately affected populations—should be priority for biomedical research.

Equity in health demands a thorough understanding of fundamental causes that create and sustain population-level disparities in health and longevity (Phelan, 2010) (Thorpe et al. 2016). This understanding should seek to establish pathways for interventions that eliminate disparities. Researchers and policymakers have identified key intervention areas that include improving neighborhood and housing conditions, protecting health at key points along the lifecourse and addressing psychological factors related to race stigma (Williams & Purdie-Vaughns, 2016). As biomedical researchers continue to identify determinants of population health disparities, establish pathways, and explore effective interventions for disproportionately affected populations, the continued support of this research should be durable and resolute. Moreover, this support should include tailored training opportunities that match the need for rigorous, multilevel health disparities research related to aging.

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