Syracuse University

SURFACE at Syracuse University

Institute for Veterans and Military Families

Spring 2-27-2015

Research Brief: "Disparities in the Consequences of Sarcopenia: Implications for African American Veterans"

Institute for Veterans and Military Families at Syracuse University

Follow this and additional works at: https://surface.syr.edu/ivmf

Part of the Gerontology Commons, Military and Veterans Studies Commons, Musculoskeletal, Neural, and Ocular Physiology Commons, and the Race and Ethnicity Commons

Recommended Citation

Institute for Veterans and Military Families at Syracuse University, "Research Brief: "Disparities in the Consequences of Sarcopenia: Implications for African American Veterans" (2015). *Institute for Veterans and Military Families*. 311.

https://surface.syr.edu/ivmf/311

This Brief is brought to you for free and open access by SURFACE at Syracuse University. It has been accepted for inclusion in Institute for Veterans and Military Families by an authorized administrator of SURFACE at Syracuse University. For more information, please contact surface@syr.edu.





RESEARCH BRIEF

Disparities in the Consequences of Sarcopenia: Implications for African American Veterans

AUTHORS: Michael O. Harris-Love, D.Sc., M.P.T.

Bernadette Adams, M.P.A, R.N.,

C.C.R.P.

Haniel J. Hernandez, D.P.T. Loretta DiPietro, Ph.D., M.P.H. Marc R. Blackman, M.D.

DATE: 2014

PUBLICATION: Frontiers in Physiology, first published

online: July 7, 2014

PUBLICATION TYPE: Peer-Reviewed Journal Article

KEYWORDS: African Americans, aging, disability,

body composition, health disparities, sarcopenia, skeletal muscle, veterans

ABSTRACT

"Sarcopenia is characterized by an age-related loss of muscle mass associated with diminished strength and physical functioning. This syndrome is not currently screened within the Veterans Health Administration (VHA) healthcare system or systematically documented within the electronic medical record, primarily due to a lack of agreement regarding the definition and diagnostic criteria for sarcopenia. These methodological shortcomings may exacerbate the health disparities affecting African American veterans because of their increasing demographic presence within the VHA population, their high level of disabling conditions, and the potentially disproportionate impact of sarcopenia on insulin sensitivity and prediabetes in this group. A VHA-led effort to establish sarcopenia screening criteria suitable for older veterans with comorbid conditions may serve to address health disparities associated with age-related changes in skeletal muscle."

RESEARCH HIGHLIGHTS

- Given that the veteran population is older than the general population with a median age of 62 in comparison with a non-veteran median age of 43, more research is needed on age-related muscle wasting and the implications it has for African American veterans. This article brings to light the need to study the impact of sarcopenia, a muscle wasting ailment, for African American veterans being served by the VA. This is important because the need to effectively manage geriatric syndromes in African American veterans within the VHA healthcare system will continue to increase over time.
- Prior researchers have observed that older African
 Americans have a higher prevalence of functional
 limitations and diminished activities of daily living.
 Sarcopenia can have significant consequences for the
 affected, including increased hip fractures, difficulty
 walking fast, limited basic mobility, increased falling
 risk, and trouble living alone.
- Despite recent progress in relation to diagnostic criteria for sarcopenia, more research is needed on possible sarcopenia disparities in African Americans as influenced by racial/ethnic characteristics on common methods of body composition.



IMPLICATIONS

FOR PRACTICE

The 2011 Veteran Population Projection Model projects that between 2013 and 2040 the percentage of minority veterans will increase from 21% to 34%. Given this projected increase, both young and aging African American veterans should communicate their geriatric medical needs and concerns to their medical providers. Since sarcopenia is characterized by a decrease in muscle mass and associated with a loss of strength and power, diminished functional performance, and increased disability, veterans with sarcopenia should seek mental health counseling to address any psychological issues associated with changes in their body and functional independence. Health and medical practitioners with veteran patients should familiarize themselves with

sarcopenia. Given that older veterans are at a higher risk of developing muscle wasting ailments, geriatricians, rehabilitation specialists, and public health practitioners should work together to inform veterans of ways muscle wasting can be avoided or reduced through physical activity, dietary modifications, and periodic objective strength assessment.

FOR POLICY

The VA might move towards using diagnostic and staging criteria for sarcopenia that include elements of lean body mass, strength, and functional performance. Based on the general recommendations of U.S. and international consensus groups, sarcopenia may be a condition that the VA considers incorporating into current routine screenings for aging veterans. Given the estimated prevalence of sarcopenia among older civilian adults, the VA might conduct studies to better characterize this geriatric syndrome within the veteran population and determine its extended effects on the physical and emotional well-being. Coordinated efforts by the VA to study sarcopenia might be beneficial considering sarcopenia can affect everyday tasks and thus employment and general mobility. Given the physical changes associated with sarcopenia, such as loss of muscle mass, the VA might consider the patient and caregiver burden associated with mobility limitations, and offer mental health counseling in relation to a diagnosis. The VA may also consider amending their disability criteria to include sarcopenia as an independent or a contributing cause of disability. With the VA experiencing an increased representation of African American veterans, the VA might re-evaluate its geriatric care to ensure the needs of older African American veterans are being met. Additionally, the VA might re-examine current body composition assessment criteria to ensure the differences in body mass of African Americans compared to Caucasians are accounted for in regards to treatment and health services. In addition, Federal agencies may take steps to increase the recognition of sarcopenia as a diagnostic term.

FOR FUTURE RESEARCH

Research is needed on incorporating age-related changes in muscle quality into the broad view of a sarcopenia diagnosis. Given that many older veterans suffer from diabetes along with muscle loss, future researchers should study the role of myosteatosis in the pathogenesis of diminished insulin sensitivity and diabetes. Furthermore, given that African Americans are 1.5-1.7 times more likely to have diabetes than Caucasians both within VA and civilian populations, future researchers should study the impact of age-related muscle changes and how they interact with racial/ethnic group factors in health disparities. Despite the work done to understand sarcopenia, which includes the proposal of staged diagnostic criteria, more research is

needed on the potential shortcomings of sarcopenia screening models. A majority of current research on sarcopenia involves non-veteran populations. Future research on sarcopenia should sample veteran populations exclusively or oversample veterans in civilian populations to better understand the effects on quality of life for veterans. Analysis of NHANES data showed an association among sarcopenia, type 2 diabetes, and obesity. However, more research is needed on age-related muscle changes with other comorbid conditions in veteran populations, especially among African American veterans.

AUTHOR INFORMATION

Michael O. Harris-Love, D.Sc., M.P.T. ^{1,2}
Bernadette Adams, M.P.A, R.N., C.C.R.P. ³
Haniel J. Hernandez, D.P.T. ⁴
Loretta DiPietro, Ph.D., M.P.H. ⁵
Marc R. Blackman, M.D. ⁶

- ¹michael.harris-love@va.gov
- ² The Muscle Morphology, Mechanics, and Performance Laboratory, Geriatrics and Extended Care Service, Veterans Affairs Medical Center; Research Service, Veterans Affairs Medical Center; Department of Exercise and Nutrition Sciences, Milken Institute School of Public Health, The George Washington University
- ³ Research Service, Veterans Affairs Medical Center
- ⁴ Physical Therapy Service, Physical Medicine and Rehabilitation Service, Veterans Affairs Medical Center
- Department of Exercise and Nutrition Sciences, Milken Institute School of Public Health, The George Washington University
- ⁶ Research Service, Veterans Affairs Medical Center; Departments of Medicine, Biochemistry & Molecular Medicine, School of Medicine and Health Sciences, The George Washington University; Departments of Medicine and Rehabilitation Medicine, Georgetown University School of Medicine