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Aging Well among Women Veterans Compared with Non-Veterans in the Women’s Health Initiative

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were significantly more likely to die prior to age 80 years than non-Veteran WHI participants (multivariate adjusted odds ratio = 1.20; 95% confidence interval, 1.04–1.38). In both Veteran and non-Veteran women, healthy survival was associated with not smoking, higher physical activity, healthy body weight, and fewer depressive symptoms. *Implications:* Intervening upon smoking, low physical activity, obesity, and depressive symptoms has potential to improve chances for healthy survival in older women including Veterans.”

RESEARCH HIGHLIGHTS

- Understanding the aging issues of women veterans, whether prior service in the U.S. military affects aging well, and the determinants of healthy aging have been identified as priority areas for research by the Veterans Health Administration Women’s Health leadership. However, most of the published data on women veterans focuses on those age 65 or younger. This study examines whether veteran status influences an array of healthy aging metrics, including probability of living to age 80 years without disease and disability, and several psychosocial parameters of aging well.
- The percentage of women age 80 years and older is expected to increase as baby boomers age. Given that more than 16% of women aged 80 years and older have a history of military service, understanding healthy aging metrics is important to supporting the health and wellness of aging women in the United States.
- Among the Women Health Initiative participants, women veterans were more likely to die prior to age 80 years than non-veteran women. Women veterans 80 years and older reported lower healthy aging metrics than non-veteran women. Future research is needed to examine whether women veterans have special risks that contribute to less healthy survival in older age.
- These findings support the VHA goal of learning more about aging women veterans. They show that women veterans differ from non-veteran women on several dimensions of aging well, including survival to age 80 years, maintaining physical function, and perceived health and quality of life.

ABSTRACT

“*Purpose of the Study:* To examine whether Veteran status influences (a) women’s survival to age 80 years without disease and disability and (b) indicators of successful, effective, and optimal aging at ages 80 years and older. *Design and Methods:* The Women’s Health Initiative (WHI) enrolled 161,808 postmenopausal women aged 50–79 years from 1993 to 1998. We compared successful aging indicators collected in 2011–2012 via mailed questionnaire among 33,565 women (921 Veterans) who reached the age of 80 years and older, according to Veteran status. A second analysis focused on women with intact mobility at baseline who could have reached age 80 years by December 2013. Multinomial logistic models examined Veteran status in relation to survival to age 80 years without major disease or mobility disability versus having prevalent or incident disease, having mobility disability, or dying prior to age 80 years. *Results:* Women Veterans aged 80 years and older reported significantly lower perceived health, physical function, life satisfaction, social support, quality of life, and purpose in life scale scores compared with non-Veterans. The largest difference was in physical function scores (53.0 for Veterans vs 59.5 for non-Veterans; $p < .001$). Women Veterans

IMPLICATIONS

FOR PRACTICE

As they age, women should continue seeking health care, and discuss with their medical professional risk factors they can modify and any other health concerns. When appropriate, aging women should also maintain healthy behaviors, such as remaining physically active and having strong social and family support. Given the importance of mental health to overall health, both veteran and non-veteran women should seek medical support if they feel depressed. Practitioners should discuss with their patients ways to establish good health and wellness into older age. Practitioners caring for women veterans should be mindful of factors that could affect their woman veteran's health years after military service has ended.

FOR POLICY

The Veterans Health Administration might continue prioritizing research to better understand the health and wellness needs of aging women veterans. Since a majority of women veterans do not utilize VA health care services, the VHA might advise their researchers studying the health of women veterans to survey and include datasets that of women veterans who do not utilize VA services. Since this study found that modifiable risk factors predict health survival, the VHA might continue providing effective behavior change programs that target smoking cessation, increased physical activity, and establishing healthy body weights. To improve prospects of health survival, the VHA might continue evaluating and treating depressive symptoms. To ensure the aging population is healthy policymakers might continue efforts to ensure everyone has adequate health coverage to seek and receive health care and necessary support to participate in modify risky behavior.

FOR FUTURE RESEARCH

This study reinforces the need for additional research on aging women veterans, especially those age 80 years and older. Since women veterans had significantly lower satisfaction with life and purpose in life scores, lower quality of life ratings, and lower social support scores, it seems that prior military service identifies a subgroup of older women with some special risks. Future research is needed to better understand the special health risks of this subgroup of women. Despite women veterans age 80 years having poorer physical function and perceived health status, indicators of effective aging did not seem to be as affected by these negative health metrics. Since women veterans reported greater self-resiliency, it would be beneficial to study how resiliency assists in mastery of healthy aging for women veterans. A limitation of this study is that the authors were unable to shed light on the extent to which factors, such as military sexual trauma, environmental exposures associated with military jobs, and post-traumatic stress disorder, might have altered the subsequent life course of women veterans. Future researchers should collect data on military exposures and health. Accessing and receiving of health care might differ between women veterans and non-veteran women. Future studies on health aging metrics should account for these differences. In this study, there was no association between educational attainment and healthy survival for women veterans. Since education is usually associated with better health, future researchers should investigate what, if any, factors negate the expected association between education and health for women veterans. This study was limited by lack of information on details of women's military service, including duration of service, service era, combat history or deployment to combat zones, military occupations and exposures, and use of VA health care services over time. Future researchers should collect data on women's military service. Based on this study's findings, it is important for researchers to continue studying the aging of younger cohorts of women veterans from post-Vietnam service eras.

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