Physical Performance Measures in National Veteran Golden Age Games Athletes

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INTRODUCTION

Statistics show that the average older adult does not exercise as much as they should. The average exercise volume for this population is just 32.7 mins per week. This is far below national recommendations of 150 mins per week. However, there is a select group of older adults, known as Veteran Athletes, that appear to remain more active. The National Veterans Golden Age Games (NVGAG) is a competition held to allow this population to showcase their talents and engage in competitive sport.

PURPOSE

The purpose of this study was to describe the physical health of older veterans competing in the NVGAG in the context of the Senior Athlete Fitness Exam (SAFE) and to determine the appropriateness of this tool for assessing fitness in NVGAG athletes.

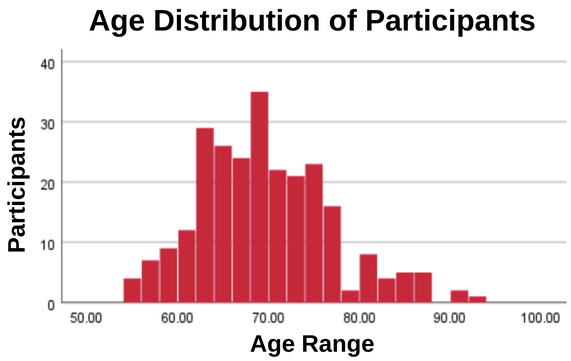
METHODS

For this cross-sectional study, registered senior athletes (N= 255) age 50 and older participated in SAFE testing between 2017 and 2022 at the NVGAG annual competition. The SAFE includes measurements of cardiovascular, muscular, flexibility, and balance fitness. Recruitment was conducted via NVGAG organizers and through word of mouth at the event. Athletes consented to participate and completed a health and sport history form before SAFE testing. Descriptive statistics, chi-square and logistic regression were used to analyze the data.

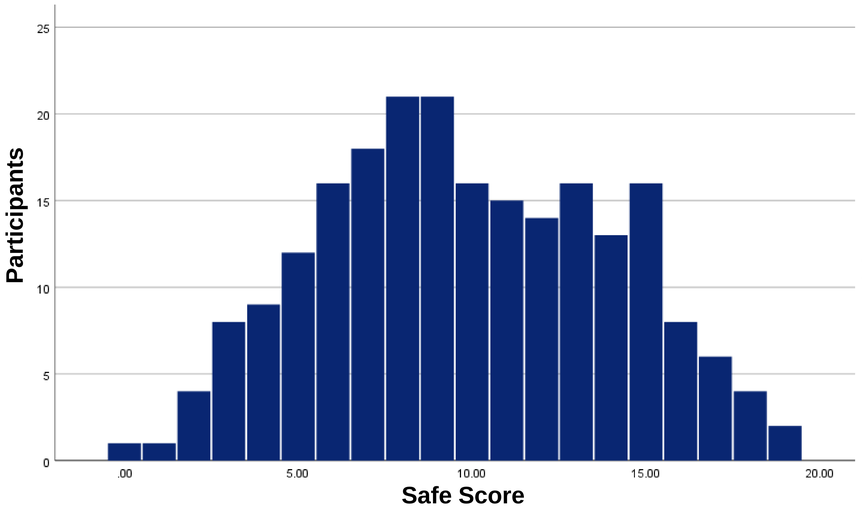
SAFE
SENIOR ATHLETE FITNESS EXAM

Cardiovascular Fitness	•Waist Circumference •Waist-to-Hip Ratio •BMI
Muscular Fitness	•Grip Strength •5 x Sit-to-Stand Test •Fast Gait Speed
Flexibility Fitness	•Shoulder Flexion •Ankle Dorsiflexion •Mod. Thomas Test •Posture
Balance Fitness	•Single Leg Stance, Eyes Open •Single Leg Stance, On Foam

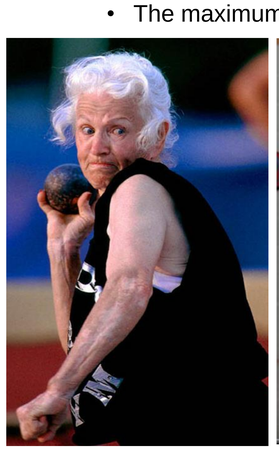
RESULTS

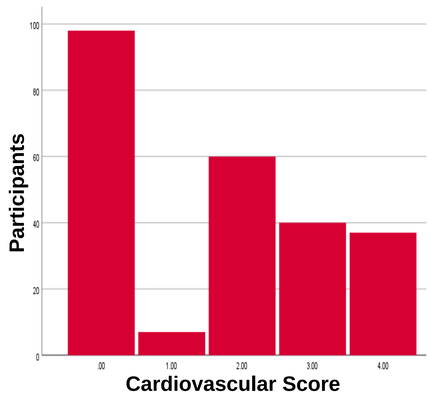


- This population sample was 74% male and 26% female.

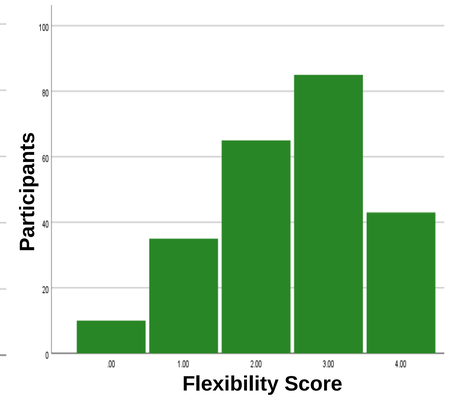


- The average SAFE score was 9.82 out of 20 points
- The minimum score was 0 out of 20 points
- The maximum score was 19 out of 20 points

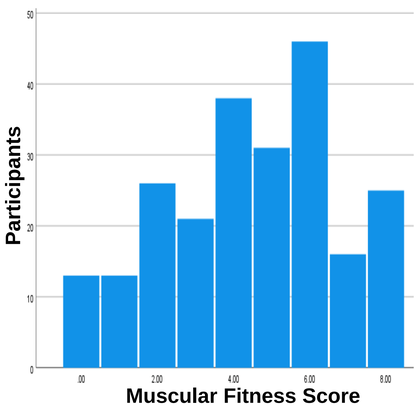




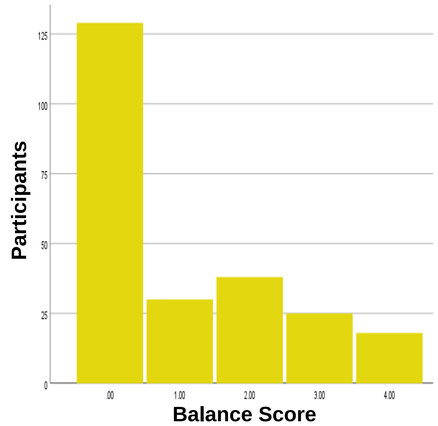
- Cardiovascular disease was associated with lower Cardiovascular Fitness scores (p<0.001)



- No associations were found between Flexibility Fitness subscale scores and injury (p=0.42) or falls (p=0.08)



- Falls were associated with lower Muscular Fitness scores (p<0.01)
- Lower grip strength was consistent in athletes with diagnoses of osteopenia or osteoporosis (p=0.01)



- Balance subscales were not significantly associated with falls (p=0.51)

DISCUSSION / CONCLUSION

These findings suggest that NVGAG athletes can participate in SAFE testing without obvious ceiling or floor effects. Two SAFE subscales, Muscle Fitness and Cardiovascular Fitness were most effective for identifying health concerns. The Flexibility Fitness and Balance Fitness subscales showed less utility for this population.

Currently, this is the only known research-based tool being used to assess measures of physical health in NVGAG athletes. Future research is warranted to explore the Flexibility Fitness and Balance Fitness subscales and to compare this population to athletes of those participating in the National Senior Games.