



THE UNIVERSITY OF ARIZONA

Does Age Influence Self-Reported Symptom Burden and in turn Modify Sedentary Time in Ovarian Cancer Survivors?

Jennifer J. McElfresh^{1,2}, Meghan B. Skiba¹, Tracy E. Crane^{1,2,3}, Cynthia A. Thomson^{1,3}

¹Health Promotion Sciences, Mel & Enid Zuckerman College of Public Health, ²Nursing Sciences, College of Nursing, University of Arizona, and ³University of Arizona Cancer Center, Tucson, AZ

Introduction

- In 2020 in the United States an estimated 21,750 women will receive a new diagnosis of ovarian cancer. ¹
- Almost two-thirds, 64%, of cancer survivors are 65 years old or older. ²
- The GOG/NRG-0225 Lifestyle Intervention for oVarian cancer Enhanced Survival (LIVES) study, is a 24-month RCT testing a diet and physical activity intervention for enhanced progression-free survival.
- The age distribution of the sample affords an opportunity to evaluate age-related symptoms.

Purpose

- The purpose of this study is to evaluate the relationship between age and affective symptoms (fatigue, distress, sadness) and the association with sedentary time in women participating in the LIVES study.

Methods

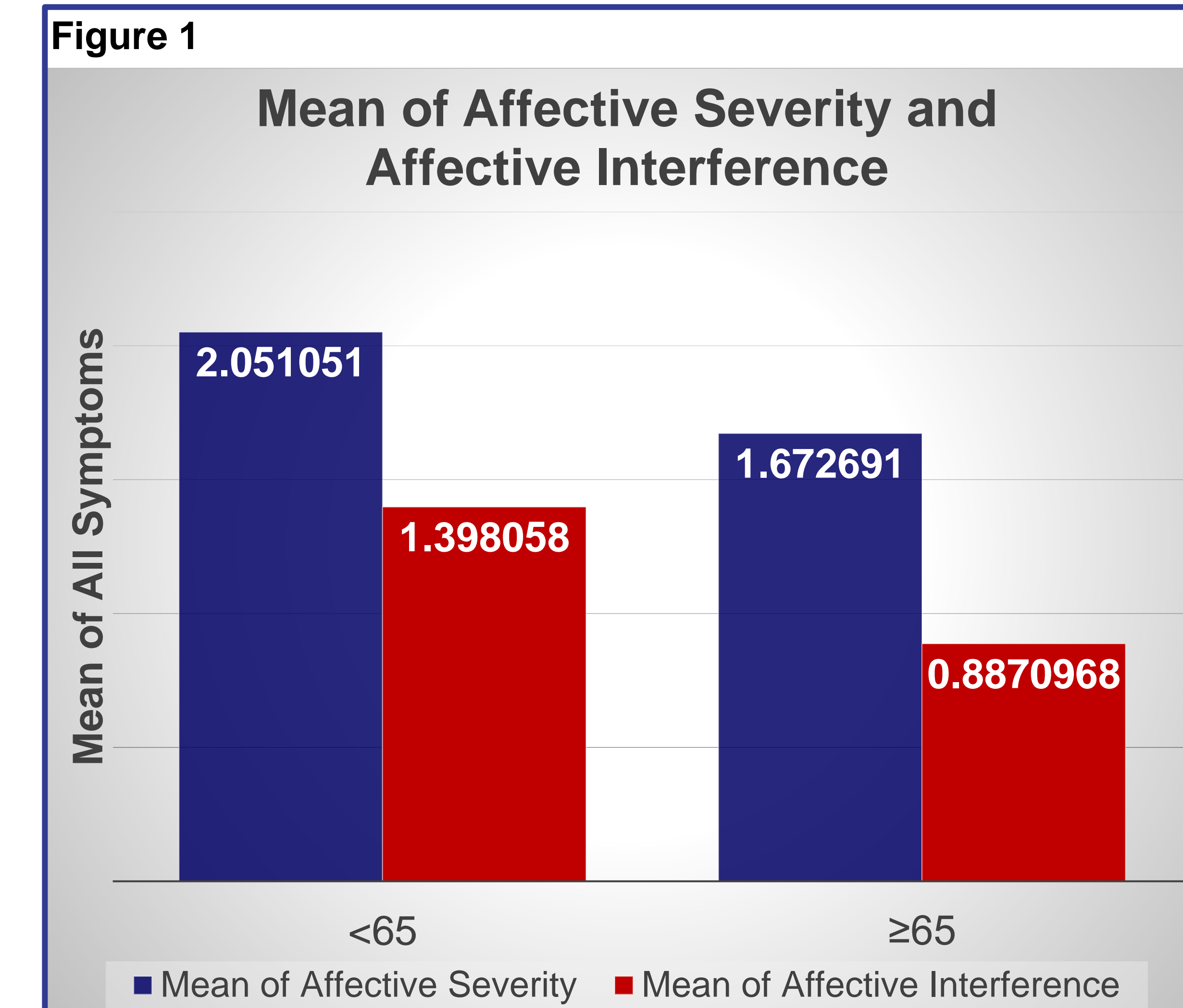
- Participant characteristics were analyzed using descriptive statistics.
- The MD Anderson Symptom Inventory was utilized to collect self-reported baseline symptom severity (n= 499) and interference (n= 165).
- Sedentary time (hours/day) was estimated from the Arizona Physical Activity Questionnaire (n= 1133).
- Symptom severity and affective symptom burden was compared by age group, <65 years or ≥65 years using two-sided t-tests.
- Symptom constructs with sedentary time by age were evaluated using adjusted linear regression models.

Results

- The mean age of ovarian cancer survivors in the study was 59.8 years of age; 32.9% of survivors were ≥65 years. (Table 1)
- Total symptom severity was significantly lower in survivors ≥65 years (μ : 1.15 \pm 0.86, p= 0.002) when compared to those <65 years.
- Affective symptom severity also differed by age (μ : 2.05 \pm 1.80, p= 0.02). However, no difference in affective symptom interference by age group was demonstrated (p= 0.09). (Figure 1)
- Total symptom severity and affective symptom interference were not associated with sedentary time overall nor by age group of survivors.
- Among survivors <65 years, affective symptom severity was associated with higher sedentary time (β =0.32, 95% CI= 0.06-0.58, p= 0.018); the same was not observed for survivors ≥65 years.

	<65 (N= 762)	≥65 (N=373)	Total (N=1135)	p-value
Age, years				<0.001*
Mean (SD)	54.69 (7.20)	70.15 (4.09)	59.77 (9.65)	
BMI kg/m²				<0.001*
Mean (SD)	28.69 (6.69)	26.68 (4.85)	28.03 (6.21)	
Ethnicity				0.0443*
Non-Hispanic	702 (92.1%)	358 (96.0%)	1060 (93.4%)	
Hispanic	48 (6.3%)	13 (3.5%)	61 (5.4%)	
Race				<0.001*
White	655 (86.0%)	348 (93.3%)	1003 (88.4%)	
Black	42 (5.5%)	13 (3.5%)	55 (4.8%)	
Other	58 (7.6%)	9 (2.4%)	67 (5.9%)	
Education				0.0327*
High School Graduate or Less	112 (14.7%)	69 (18.5%)	181 (15.9%)	
Some College	201 (26.4%)	115 (30.8%)	316 (27.8%)	
College Graduate	442 (58.0%)	187 (50.1%)	629 (55.4%)	
Number of Comorbidities				<0.001*
0	322 (42.3%)	81 (21.7%)	403 (35.5%)	
1	234 (30.7%)	102 (27.3%)	336 (29.6%)	
2	149 (19.6%)	102 (27.3%)	251 (22.1%)	
3	57 (7.5%)	88 (23.6%)	145 (12.8%)	
Smoking Status				0.3128
Ever Smoked	269 (35.3%)	144 (38.6%)	413 (36.4%)	
Never Smoked	486 (63.8%)	228 (61.1%)	714 (62.9%)	
Energy Intake (kcal/day)				0.2794
Mean (SD)	1856.18 (1435.75)	1759.92 (1260.59)	1824.96 (1381.55)	
Physical Activity (METhrs/day)				0.8633
Mean (SD)	6.27 (44.62)	6.22 (4.23)	6.25 (4.50)	

All missing data <10%
*Indicates statistical significance p<0.05



Conclusions

- When evaluating symptom burden in ovarian cancer survivors, age is a relevant factor.
- Younger ovarian cancer survivors may carry a higher total symptom burden and affective symptom burden than older survivors.
- Symptom burden may modify sedentary time; managing symptoms may be necessary to reduce sedentary time in ovarian cancer survivors.
- Future research is necessary to assess the influence of age on symptom burden in ovarian cancer survivors.

Acknowledgements

The authors acknowledge the important role the women participating in the Lifestyle Intervention for oVarian Cancer Enhanced Survival (LIVES-GOG/NRG 0225) in providing data for this work. The LIVES-GOG/NRG 0225 program is funded by the National Institutes of Health National Cancer Institute (1R01 CA186700) and the Behavioral Measurement and Interventions Shared Resource at the University of Arizona Cancer Center Support Grant (P30 CA023074).

References

1. American Cancer Society. Cancer Facts & Figures 2020. Atlanta, Ga: American Cancer Society; 2020.
2. Cancer Treatment and Survivorship Facts & Figures, 2019-2021. Published June 11, 2019. American Cancer Society, Atlanta, Ga.