

Karina I. Halilova, MD, MPH¹ Andres Azuero, PhD, MBA¹ Courtney P. Williams, MPH¹ Grant R. Williams, MD¹
Michelle Y. Martin, PhD² Marie A. Bakitas, DNSc., CRNP¹ Wendy Demark-Wahnefried, PhD, RD¹ Maria Pisu, PhD¹
¹ University of Alabama at Birmingham (UAB), Birmingham, AL, ²University of Tennessee Health Science Center (UTHSC)

► Background

- Health promotion is an essential component of cancer survivorship care¹
- Healthy lifestyle (HLS; healthy diet, physical activity and weight management)
 - Protect from obesity, secondary cancers
 - Reduce cancer specific and overall mortality^{2,3}
- Current guidelines on diet and exercise for oncology care teams
 - American Cancer Society (ACS), American Institute of Cancer Research (AICR), American Society of Clinical Oncology (ASCO), have endorsed them starting with ACS since 1991
- HLS discussions with healthcare providers not frequent in older cancer survivors
 - Minority survivors reported discussions on all HLS topics more often than white
 - Model-based adjusted analyses are needed to account for confounding factors that might explain these differences
 - Providers discussing HLS may differ for minority and white survivors

► Objective

- To investigate racial/ethnic differences in HLS topics discussed after adjusting for confounders, and provider type engaging in HLS discussions in each racial/ethnic group

► Methods

- Design:** Cross-sectional study of telephone survey data (2013-2015)
- Population:** ≥65 years with cancer
- Outcomes:** HLS discussions by topic and provider (oncologist, another doctor, nurse)

Survey questions:

At any time during your cancer care and after, has your provider, or anybody else on your care team, advised you to:

- Exercise?
- Follow a healthy diet low in animal fat, sugar and processed foods?
- Eat 5 or more servings of vegetables per day?
- Lose weight?

If yes, was it your:

- Oncologist? b) Another Doctor? c) Nurse?

► Main findings

Minority survivors had higher adjusted odds of HLS discussions except for healthy diet and weight loss

Minority and white survivors similarly reported more often discussing HLS with another doctor vs. oncologist or nurse

► Results



Table 1. Survivor demographics

		Total sample	White	Minority	P-value
Survivor Characteristics		N=1460	N=1189	N=271	
		Column %			
Age (years):	Mean (SD)	74 (6)	75 (6)	73 (5)	-
	65-74 years	58%	56%	67%	0.001
	≥75 years	42%	44%	33%	
Sex:	Female	60%	60%	60%	0.955
	Male	40%	40%	40%	
Education:	≤High school education	38%	35%	49%	<.0001
	Some college or higher	62%	65%	51%	
Cancer diagnosis:	<1 year	16%	14%	25%	<.0001
	≥1 year	84%	86%	75%	
Body Mass Index: Mean (SD)	Mean (SD)	28(6)	27(6)	29 (7)	
	Overweight (25.0-29.9)	36%	37%	33%	<.0001
	Obese (≥30)	28%	25%	40%	
Godin Leisure-Time Physical Activity (LTPA):	<150 minutes per week	81%	80%	86%	0.036
	≥150 minutes per week	19%	20%	14%	
Symptoms:	Pain	59%	58%	66%	0.008
	Distress	51%	49%	59%	0.002

Table 2. Logistic regression associations between race/ethnicity and receipt of healthy lifestyle discussions

	Exercise	Healthy diet	Vegetables	All 3 main topics (Exercise, healthy diet and vegetables) N=934	Lose weight (if BMI >25, 64%; N=934)
All	49%	53%	28%	17%	33%
White, % (model estimated %)	47% (47%)	52% (55%)	26% (20%)	16% (13%)	31% (36%)
Minority, % (model estimated %)	59% (56%)	61% (61%)	38% (30%)	24% (19%)	41% (38%)
Unadjusted OR (95% CI)	1.6 (1.23-2.11)	1.4 (1.09-1.87)	1.7 (1.31-2.29)	1.7 (1.23-2.34)	1.5 (1.11-2.13)
Adjusted OR (95% CI)	1.4 (1.08 – 1.90)	1.3 (0.97-1.73)	1.5 (1.12 -2.03)	1.5 (1.04-2.07)	1.1 (0.76-1.60)

Odds Ratio (OR); adjusted for age, sex, SES, time from cancer diagnosis, comorbidity, weight status, physical activity, pain, distress

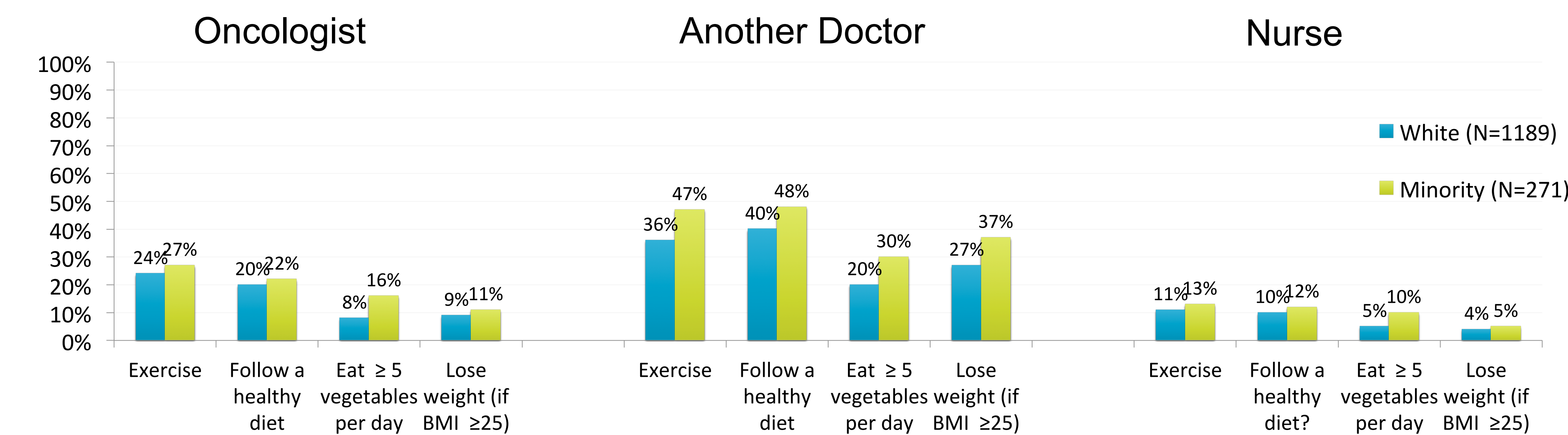


Figure 1. Frequency of cancer survivors reporting healthy lifestyle discussions by provider type

► Methods cont'd

- Setting:** UAB Health System Cancer Community Network (CCN) of 12 academic and community hospitals

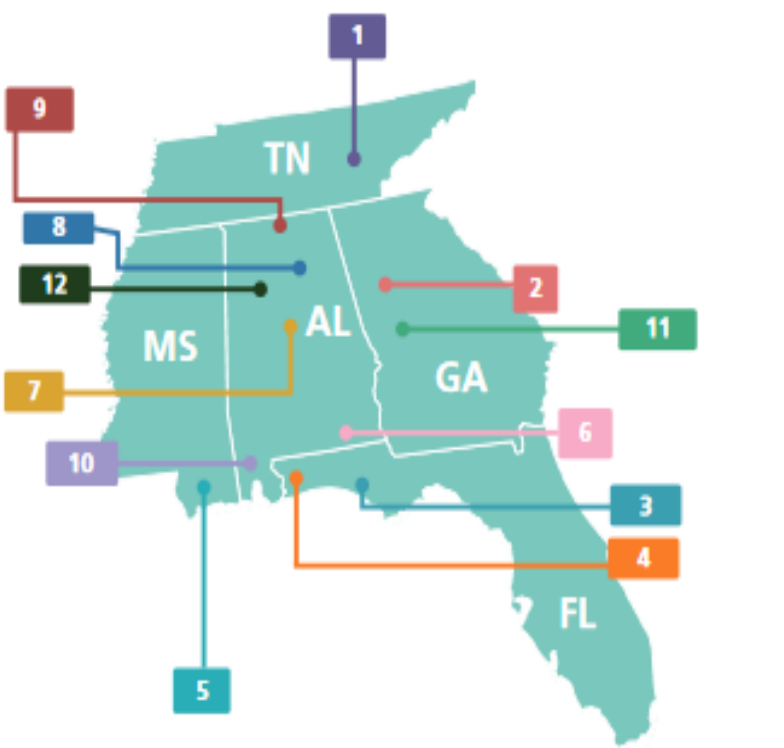


Figure 2. UAB CCN Sites

- Analysis:**
 - Descriptive analysis by race/ethnicity
 - Race/ethnicity was white and minority (African-American, and other)
 - Bivariate associations between HLS discussions and race/ethnicity
 - Multivariable logistic regression; adjusted for age, sex, SES, time from cancer diagnosis, comorbidity, weight status, physical activity, pain, distress
- Limitations:** Cross-sectional design; no follow-up. Patient recall bias. Limited to the southeastern U.S.

► Conclusion

- Additional studies are needed to understand reasons for differences in HLS discussions in each racial/ethnic survivor group
- Strategies are needed to increase oncologists and nurses' promotion of HLS discussions in older adults

► References

- Nekhlyudov L, Mollica MA, Jacobsen PB, Mayer DK, Shulman LN, Geiger AM. Developing a Quality of Cancer Survivorship Care Framework: Implications for Clinical Care, Research and Policy. *J Natl Cancer Inst.* 2019
- Rock CL, Doyle C, Demark-Wahnefried W, et al. Nutrition and physical activity guidelines for cancer survivors. *CA Cancer J Clin.* 2012;62: 243-274.
- Maliniak ML, Patel AV, McCullough ML, et al. Obesity, physical activity, and breast cancer survival among older breast cancer survivors in the Cancer Prevention Study-II Nutrition Cohort. *Breast Cancer Res Treat.* 2018;167: 133-145.

