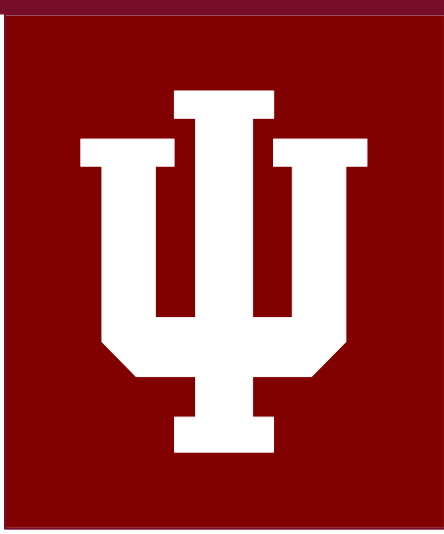


Relationship Between Social Determinants of Health & Quality of Life in Breast Cancer Survivors

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INTRODUCTION

- Disparities in breast cancer risk by social determinants of health are well described ¹
- Less is known about the influence of social determinants of health on the quality of life of breast cancer survivors

PURPOSE

- The purpose of the study was to assess the impact of Social Determinants of Health on the quality of life of breast cancer survivors

REFERENCES

- Anderson, T et al., (2023). Geographical variation in social determinants of female breast cancer mortality across US counties. *JAMA Network Open* 6(9), 1-14.
- Yost, K. et al., (2001). Socioeconomic status and breast cancer incidence in California for different race/ethnic groups. *Cancer Causes and Control*, 12, 703-711.

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METHODS

- Nationally recruited sample of breast cancer survivors
- Secondary analysis of cross-sectional descriptive study that characterized factors associated with cognitive dysfunction and with the psychoneurological symptom cluster
- Female breast cancer survivors (stage I-IIIa)
- ≥ 21 years of age
- ≥ 6 months post-adjuvant or neo-adjuvant therapy
- Quality of life measured by PROMIS (4-item scale)
- Addresses geocoded to the census tract
- Census tract-level and annual estimates of Yost ² were linked to participant addresses
- Descriptive statistics and linear regression

RESULTS

- Majority white, married, and resided in rural areas
- Breast cancer survivors (N= 518)
- Majority well educated with one-third having a masters degree or higher and higher socioeconomic status compared to United States population

RESULTS

Table 1. Sample Characteristics

Variable	Mean/% (SD/N)
Age, years	55.8 (9.9)
Race-ethnicity	
Non-Hispanic, White	456 (89.2)
Hispanic, Black/African American, Asian	43 (8.4)
American Indian, Alaskan Native, Native Hawaiian/Other Pacific Islander	
More than one race	
Marital Status	
Married, living with partner	363 (71.0)
Single, divorced, widowed, other	140 (27.4)
Education	
Some college or associate degree	177 (34.6)
4-year college graduate or bachelor degree	164 (32.1)
Master degree or more	170 (33.3)
Household Income, \$	88, 861 (55, 934)
Employment	
Employed part or full time	299 (58.5)
Unemployed, homemaker, retired or other	212 (41.5)
Yost National Ranking Quartiles	
1-25 (lowest)	52 (10.2)
25-50	94 (18.4)
51-75	140 (27.4)
76-100 (highest)	181 (35.4)
Rural urban commuting area	
Urban	152 (29.8)
Rural	359 (70.2)
Quality of life	10.0 (4.1)
¹ Frequencies may not sum the 518 due to missingness	
² Values range 0-16	

Table 2. Change in Quality of Life by sociodemographic covariate (n=518)

Variable	β (95% CI)	p-value
Age, per 10 years	0.35 (-0.05 - 0.74)	0.088
Race-ethnicity		
Non-Hispanic, White	Reference	
Hispanic, Black/African American, Asian, American Indian, Alaskan Native, Native Hawaiian/Other Pacific Islander, More than one race	0.44 (-0.81 - 1.69)	0.487
Marital Status		
Married, living with partner,	Reference	
Single, divorced, widowed, other	-0.75 (-1.60 - 0.10)	0.082
Education		
Some college or associate degree	Reference	
4-year college graduate or bachelor degree	0.12 (-0.78 - 1.03)	0.790
Master degree or more	1.18 (0.24 - 2.13)	0.014
Household Income, per 10,000	0.02 (-0.06 - 0.10)	0.667
Employment		
Employed part or full time	Reference	
Unemployed, homemaker, retired or other	-1.38 (-2.19 - -0.58)	0.001
Yost National Ranking Quartiles		
1-25 (lowest)	Reference	
25-50	0.27 (-1.11 - 1.65)	0.700
51-75	0.49 (-0.82 - 1.81)	0.463
76-100 (highest)	0.69 (-0.67 - 2.04)	0.322
Rural urban commuting area		
Urban (RUCA = 1.0)	Reference	
Rural (RUCA > 1.0)	0.56 (-0.30 - 1.42)	0.201

¹ From linear regressions of 25 imputed datasets

DISCUSSION

- Breast cancer survivors with higher education and socioeconomic status have increased access to healthcare and wellness-related resources, improving quality of life
- Unemployed breast cancer survivors, who were older and/or retired had better quality of life
- Younger breast cancer survivors reported poorer psychological well-being and quality of life
- Geocoding is an important methodology to use to facilitate the identification of disparities in cancer survivorship



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