

COMPARISON OF LIFESTYLE BEHAVIORS AND GENERAL HEALTH BETWEEN FEMALE BREAST CANCER SURVIVORS WITH AND WITHOUT DIABETES

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Introduction

Diabetes is associated with an increased incidence of breast cancer as they share some risk factors such as aging, obesity, diet and physical inactivity. But for breast cancer survivors, whether lifestyle behaviors and general health differ between women with and without diabetes is unclear.

Methods

We analyzed data from the 2016 Behavioral Risk Factors Surveillance System (BRFSS), which included a nationally representative sample generated using the multi-stage random sampling methods. Ten states/territories administered the cancer survivorship module. We included adult women diagnosed with breast cancer who had completed cancer treatment at the time of the survey. We excluded women who were underweight. The final sample included 1,106 participants. Variables included general health (poor/fair versus good to excellent), weight (normal versus overweight/obese), physical activity (exercised within the past 30 days), and sleep (<7 hours versus ≥ 7 hours).

Results

Nearly half of the participants were long-term survivors with more than a 10-year history since diagnosis of breast cancer (48.7%). There were 217 (17.7%) women with diabetes. 48.7% of women had diabetes before cancer, while 47.8% had breast cancer before diabetes, and 3.5% had the two diagnosis at the same year.

	No diabetes n=916 (82.8%)	Had diabetes n=190 (17.2%)	χ^2
No physical activity	26.4%	45.5%	30.93*
Overweight/Obese	64.0%	86.8%	37.76*
Sleep <7 hours	25.8%	35.0%	7.52**
Fair/Poor Health	20.1%	39.7%	23.25*

*p<0.001 **p<0.01

Conclusions

Among breast cancer survivors, women with diabetes had higher risks for physical inactivity, overweight/obesity, sleep less than 7 hours, and fair/poor health than those without diabetes. In multivariate logistic regression model, diagnosis of diabetes, education, income and body weight are significantly related to physical activity. Lifestyle interventions are needed to target survivors with diabetes, especially those with low socioeconomic status.

Key words: Lifestyle behaviors, general health, diabetes, breast cancer survivors