



The Significance of Sleep Disturbance and Attentional Fatigue among Breast Cancer Survivors

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INTRODUCTION

- Breast cancer is the most commonly occurring cancer type among women worldwide.
- The 5-year survival rate for women with breast cancer is now approximately 89%.
- Currently, it is estimated that more than 3.1 million breast cancer survivors (BCS) are living in the U.S.

PURPOSE

The **purpose** of this study was to examine the impact of sleep disturbance on attentional fatigue in BCS controlling for known covariates of age, level of education, and time since treatment.

BACKGROUND

- **Sleep disturbance** among BCS is shown to be related to other distress symptoms.
- **Attentional fatigue**, a decreased ability to focus, has also been identified as a persistent challenge.
- Little is known about the impact of sleep disturbance on attentional fatigue.

METHODS

- A secondary data analysis was completed from a cross-sectional, descriptive study.
- Multiple regression was used to assess the impact of sleep disturbance on attentional fatigue controlling for the covariates of age, level of education, and time since treatment.

Measures:

- The Pittsburgh Sleep Quality Index (PSQI): 9-item sub-scale measuring sleep disturbance, where higher scores indicate worse sleep disturbance.
- The Attentional Function Index (AFI): A 13-item scale measuring attentional fatigue, where higher scores indicate better functioning.

Symptom	Instrument/ Measure	Potential Range	Actual Range	Mean (SD)
Sleep Disturbance	Pittsburg Sleep Quality Index (PSQI)	0-30	0-20	9.94 (4.30)
Attentional Fatigue	Attention Function Index (AFI)	0-130	34-129	84.34 (24.90)

RESULTS

- 68 BCS from a Midwestern cancer center, ranging from 29 to 68 years of age (M=52.1 [SD, 8.6]), and on average 4.97 (SD, 3.36) years post-cancer treatment participated.
- The R^2 for the model explained 16% of the variance of attentional fatigue.
- Sleep disturbance significantly predicted attentional fatigue. $F(4, 57) = 2.68, p < 0.04, R^2 = 0.16$.

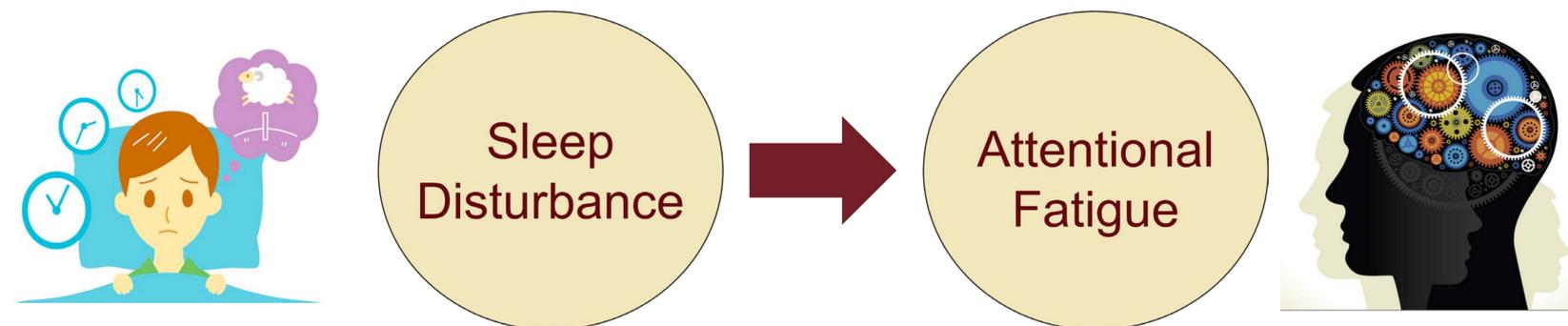


Figure 1. Significant Predictor of Attentional Fatigue. $F(4, 57) = 2.68, p < 0.04, R^2 = 0.16$.

DISCUSSION

- These findings extend our knowledge of the relationship between sleep disturbance and attentional fatigue in long-term BCS.
- Nurses are in a prime position to assess and intervene to decrease sleep disturbance to improve attentional fatigue in BCS.
- However, sleep disturbance is just one factor contributing to attentional fatigue.
- Further investigation into factors contributing to attentional fatigue in BCS is warranted.

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