Perceived Cognitive Impairment: Its Impact on Work in Breast Cancer Survivors

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Introduction

- Breast cancer survivors (BCS) who represent approximately 3.2 million survivors' world-wide, often report ongoing symptoms, including perceived cognitive impairment (PCI).
- Long-term effects of PCI on work-related outcomes in BCS is not well known.

Benefits of Returning to Work

- Provide meaning & purpose in life
- Provide a rhythm & structure to the day
- Opportunity to socialize with others
- Financial support
- Sign of recovery from cancer & treatment
- Linked to sense of well-being & quality of life

Purpose

To examine the impact of PCI on work-related outcomes, including:

- work ability,
- work performance (time management, physical mental demands, and output) &
- intent to turn over
- controlling for BCS characteristics (age, education, time post treatment & emotional work demand)

Methods

Inclusion Criteria:

Female BCS who are:

- Stage 0-IIIb at diagnosis
- Completed treatment ≥ 1 year
- 20-70 years of age
- Reported working full or part-time
- No dx of dementia, stroke, or depression

Procedure:

- BCS from a Midwestern, NCI-designated Cancer Center were recruited.
- BCS completed a one-time questionnaire & were compensated with a \$10 gift card

Instruments:

- Demographic & Medical Characteristics
- Perceived Cognitive Impairment (PCI) – FACT-Cog 3 Subscale – 20 items negatively worded statements regarding cognitive function. *Reverse scored. **HIGHER SCORES = $\uparrow$ IMPAIRMENT**
- Emotion Work Demands - 6-items assesses employee emotions when dealing with interpersonal transactions in within the workplace. **HIGHER SCORES = $\uparrow$ ABILITY TO CONTROL EMOTIONS**
- Work Ability Index (WAI)-7 items assess ability to work. **HIGER SCORES ARE BETTER**
- Work Limitations Questionnaire (WLQ)-25 items assesses work productivity. **HIGHER SCORES = $\downarrow$ PRODUCTIVITY, except physical demand Sub-scale**
- Intent to Turn Over – 3 items assesses intentions to quit.

Data Analysis:

- Descriptive stats & separate regression models

Results

- 68 employed female BCS
- Average age 52 (SD=8.6) years old
- Average 5 (SD=3.8) years post-treatment
- Majority working full time & married (78%)

Table 1. Descriptive statistics (n=68)

Variable	Mean (SD)	Potential Range	Actual Range
Perceived Cognitive Impairment	27.3(16.5)	0-80	0-71
Emotional Work Demands	16.9(5.2)	6-30	6-30
Work Ability Index	38.9(7.5)	7-49	19-49
WLQ-Time Management	8.5(4.0)	5-25	5-23
WLQ-Physical Demands	26.8(4.4)	6-30	12-30
WLQ-Mental – Interpersonal Demands	15.3(6.3)	9-45	9-41
WLQ –Output Demands	8.8(4.4)	5-25	5-25
Intent to Turnover	8.3(3.8)	3-21	3-18

Results

Figure 1. Significant Predictor of Work Ability
 $\beta = -.301$ $p < .000$

Figure 2. Significant Predictor of Time Management
 $\beta = .161$ $p < .000$

Figure 3. Significant Predictor of Physical Demands
 $\beta = -.116$ $p = 0.009$

Figure 4. Significant Predictor of Mental/Interpersonal
 $\beta = .261$ $p < 0.000$

Figure 5. Significant Predictor of Output Demands
 $\beta = .196$ $p < 0.000$

Conclusions

- Over one-fourth (26.5%) of BCS reported poor to moderate perceived work ability.
- PCI significantly predicted work ability and work performance but, not intent to turnover.
- Age, education level, time post-treatment, and emotional labor were not significant predictors of perceived work ability.
- Perceived Cognitive Impairment after cancer and cancer treatment may significantly impact perception and ability to work in BCS.
- Evidence-based interventions to address perceived cognitive impairment are needed.
- Interventions to address PCI may not only impact well-being but have an economic impact as well.