

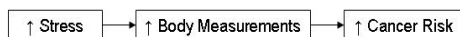
Cognitive stress management training associated with lower depression, perceived stress and waist circumference in women with a positive family history of breast cancer

¹Rachel M. Ceballos, ¹Emily D. Dolan, and ^{1,2}Denise L. Albano, and ^{1,2}Bonnie A. McGregor

¹University of Washington, ²Fred Hutchinson Cancer Research Center

Introduction

Increased body fat, especially central adiposity, is associated with increased risk for breast cancer. Psychological distress is associated with increased body weight, and greater waist circumference. This is especially important for women with a family history of breast cancer, because women at elevated risk for breast cancer experience significant levels of distress; this stress could lead to increased body weight which would increase their cancer risk even further.



To our knowledge, no one has tested the effects of a stress management intervention on factors of distress and body measurements. Thus, it is unknown how stress management interventions affect distress and body measurements in stressed but otherwise healthy people, such as women at elevated risk for breast cancer.

Goal

The goal of this study is to test the efficacy of an on-going Cognitive Behavioral Stress Management (CBSM) group intervention on measures of distress and body weight in women with a positive family history of breast cancer.

Methods

Participants

- Forty-three women
- Age 18-60 years
- Family History Positive
- Fluent in English
- No prior cancer diagnosis (except non-melanoma skin cancer)
- No current major depressive episode or diagnosis of Bipolar Disorder or Schizophrenia

Measures

- Perceived Stress Scale
- Profile of Mood States
- Impact of Events Scale
- Cancer Worry Scale
- Center for Epidemiologic Studies-Depression Scale
- Hip circumference
- Waist circumference
- Body mass index

Procedure

- Ten week program
- One 2-hour session per week
- Closed structured groups
- 4 to 6 women

Cognitive stress management

- Cognitive Appraisal (weeks 1-4)
- Coping skills training (week 5)
- Health behavior change (week 6)
- Social support (week 7)
- Anger management (week 8)
- Assertion training (week 9)
- Summary of the program (week 10)

Relaxation/Imagery

- Deep breathing
- Guided imagery
- Autogenics
- Meditation
- Progressive muscle relaxation

Health Behavior Change

- Problem-focused coping
- Motivational interviewing

Methods (cont.)

Experimental Design

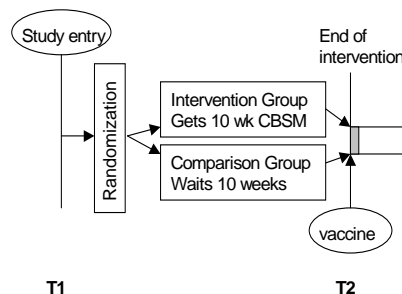


Figure 1. Selected Demographic Factors

	Treatment	Delayed
Ethnicity, n(%)		
White, non-Hispanic	18 (90)	17 (74)
White, Hispanic	2 (10)	0 (0)
African American	0 (0)	1 (4)
Asian	0 (0)	3 (9)
Other	0 (0)	2 (13)
Age, years ± SD	44.35 ± 9.81	45.13 ± 11.38
Education, years ± SD	17.38 ± 2.62	16.61 ± 1.92

Results

Table 2. Body Measurements: Mean values (SE) and p-value testing group differences in change score

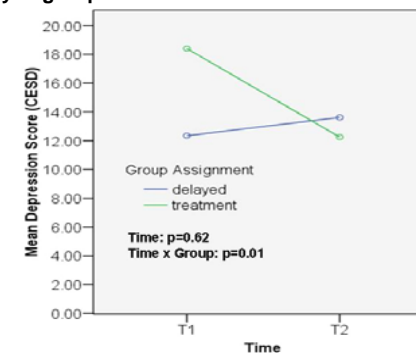
	Treatment (Mean ± SE)		Delayed (Mean ± SE)		p-value
	T1	T2	T1	T2	
Waist Circumference (cm)	83.72 ±3.47	80.10 ±3.10	83.44 ±3.38	84.63 ±2.99	0.13
Waist to Hip Ratio (cm)	0.80 ±0.02	0.91 ±0.08	0.82 ±0.02	0.80 ±0.08	0.79
Body Mass Index (kg/m ²)	27.95 ±2.15	27.61 ±2.29	30.77 ±2.15	30.93 ±2.29	0.17

Results (cont.)

Table 2. Psychosocial Factors: Mean values (SE) and p-value testing group differences in change score

	Treatment (Mean ± SE)		Delayed (Mean ± SE)		p-value
	T1	T2	T1	T2	
Perceived Stress Scale (PSS)	21.0 ± 1.3	17.6 ± 1.5	15.5 ± 1.1	14.8 ± 1.3	0.12
Depression (CESD)	18.4 ± 2.2	12.6 ± 2.3	12.6 ± 2.0	13.6 ± 2.1	0.01
Impact Events Scale (IES)	9.2 ± 2.1	6.1 ± 1.6	8.2 ± 1.9	5.7 ± 1.5	0.81
Profile of Mood States (POMS)	10.0 ± 0.7	8.2 ± 0.9	7.6 ± 0.7	7.8 ± 0.8	0.10
Cancer Worry Scale (CWS)	5.7 ± 1.3	5.4 ± 1.1	5.8 ± 1.2	5.4 ± 1.4	0.91

Figure 1. Mean depression score for treatment and delayed groups at T1 and T2



Limitations

- Small sample size
- Between group differences in psychosocial measures present at baseline

Conclusion

- Preliminary data suggests the 10-week CBSM training can reduce depression scores
- No difference in body measurements were observed following completion of CBSM
- Trend indicating a decrease in waist circumference in the treatment group was present
- CBSM may be an adaptable tool to reduce stress and encourage behavior change in women with a positive family history of breast cancer

Acknowledgments

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