

# Evaluating the Effectiveness of a Web-Based Stress Management Program for Nurses

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## Introduction

Burnout is prevalent among the nursing profession and negatively affects not only the individual nurse, but also influences patient care and the health system at large. The evidence shows improvement programs that include a combination of interventions focused on the individual, such as cognitive behavioral therapy, mindfulness practices, and stress management programs may improve burnout.

## Purpose

The purpose of this quality improvement project is to determine the utilization and acceptability of a web-based stress management program, BREATHE, and its impact on reducing nurse stress.

## Aims

- To determine the utilization of a stress management program by measuring the time participants accessed the web-based modules.
- To determine the acceptability by measuring satisfaction of the program by the nurses measured by the satisfaction scores of the stress management program.
- To determine the effects of the stress management program on nurse stress as measured by the Nurse Stress Scale given before and after having access to the web-based program for an 8-week period.

## References

(1) Aiken, L. et al. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job satisfaction. *Journal of the American Medical Association*, 288 (16), 1987-1993. (2) Hersch, R. et al. (2016). Reducing nurses' stress: A randomized controlled trial of a web-based stress management program for nurses. *Applied Nursing Research*, 32, 18-25. (3) Westermann, C. et al. (2014). Burnout intervention studies for inpatient elderly care nursing staff: Systematic Literature Review. *International Journal of Nursing Studies*, 51, 63-71.

## Methods

Single sample, pre/post design from a 250-bed community hospital in the mid-Atlantic.

## Measures

- Time spent in BREATHE program
- 7-item survey evaluating satisfaction with BREATHE
- Validated 34-item Nurse Stress Scale with 7 subscales, sum scoring

## Sample

Participants were mostly female, registered nurses with 0-10 years of experience, and a college degree.

<i>Participant characteristics (N=31)</i>	
	<i>n (%)</i>
<b>Position</b>	
Registered Nurse	24 (77.4)
Licensed Practical Nurse	1 (3.1)
Certified Nurse Assistant	6 (19.4)
<b>Years of Experience</b>	
0-5	11 (35.5)
6-10	12 (38.7)
11-25	6 (19.4)
>25	2 (6.5)
<b>Sex</b>	
Female	29 (93.0)
Male	2 (6.5)
<b>Age</b>	
20-29	4 (12.9)
30-39	8 (25.0)
40-49	15 (48.4)
50-59	1 (3.2)
60 and over	3 (9.7)
<b>Ethnicity</b>	
Asian	4 (12.9)
Black-American Descent	7 (22.6)
Black-African Descent	18 (58.1)
Black-Caribbean Decent	2 (6.5)
<b>Level of Education</b>	
High School	7 (22.6)
Associate Degree	6 (19.4)
College Degree	12 (38.7)
Master's Degree	5 (16.1)

## Intervention

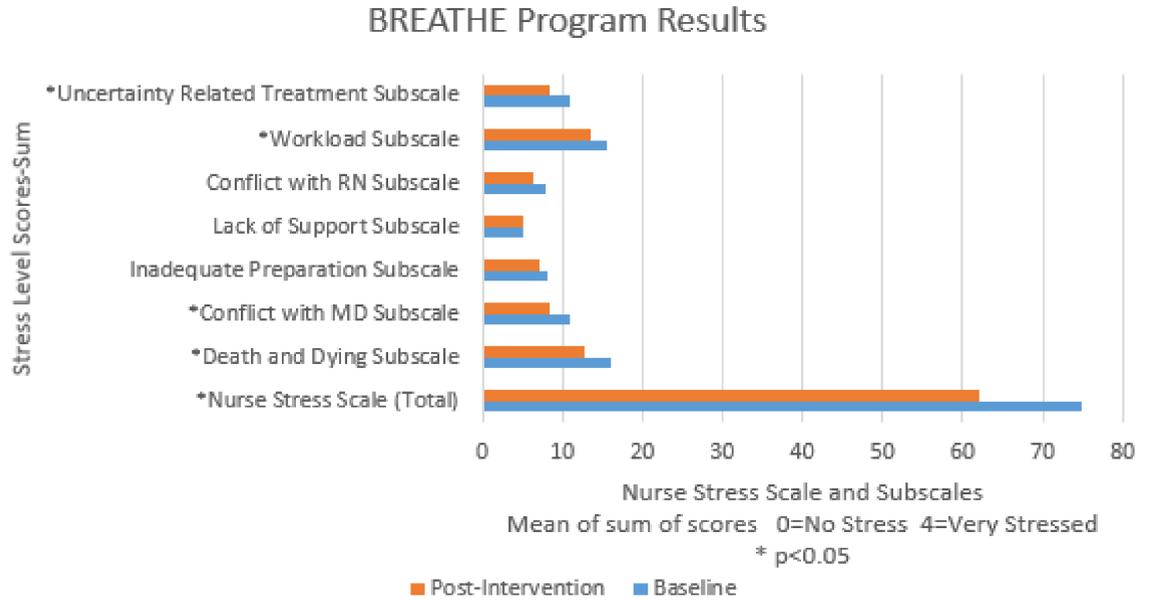
BREATHE: Stress Management for Nurses program consists of below six modules:

- Welcome and Introduction: How stress impacts the body and daily life
- Assess Your Stress: Provides assessments on personal stress and coping levels
- Identify Stressors: Helps recognize symptoms of stress and includes a tool to track stress
- Manage Stress: Provides a number of different stress management strategies and tools
- Avoid Negative Coping: Addresses the problem of using alcohol and drugs to manage stress.
- Your Mental Health: Focuses on depression and anxiety and when to seek additional help.

The BREATHE program was available to nursing staff on subacute unit after completing the nurse stress scale for an 8-week period, then the participants completed a post survey of the nurse stress scale along with a survey evaluating the BREATHE program.

## Intervention Outcome Results

Figure 1 below, shows a statistically significant improvement in several areas of nurses stress as a result of the intervention. Total nurse stress scores decreased by 398 points.



## Utilization Results

- Utilization of the program showed that 41% of participants logged in once, 48% logged in more than 2 times and the majority of participants accessed the program between 20 minutes to 2 hours.

## Evaluation Results

- Satisfaction of the program was very positive. The evaluation survey revealed the median score for the educational modules, ease to use the program, and overall satisfaction was 4.0 (0-Very Dissatisfied to 4=Very Satisfied).

## Discussion

Participation in a web-based nurse stress intervention is an acceptable alternative to face-to-face mindfulness programs. This is in alignment with the research showing that web-based programs can be an efficacious and practical method to education in healthcare.

Results of this quality improvement project showed that the BREATHE program reduced perceived stress in nurses. This supports the randomized study by Hersch et al., (2016) which showed a decrease in stress measured by the Nurse Stress Scale utilizing the BREATHE program.

