

# Three Good Things to Increase Resilience in Neuroscience Nurses



JOHNS HOPKINS  
SCHOOL of NURSING

Angel Duzan, BSN, RN, CCRN-K, CNRN, SCRNI; Belinda Wallbank, MSN, RN, NPD-BC, CNRN;  
Marie Nolan, PhD, RN, FAAN

## Background

- Neuroscience nurses face stress from a variety of factors<sup>1,2,3</sup>
- Resilience training can change the amygdala-based interpretations of fear and emotional regulation, allowing the nurse to better cope with stressful situations<sup>4</sup>
- Positive coping skills have been found to have a favorable correlation with resilience<sup>1</sup>

## Problem Statement/Purpose

- Nurses who care for patients with complex needs can experience low levels of resilience and high levels of compassion fatigue and burnout. Units with these complex patients have high levels of turnover.
- The purpose of this evidence-based quality improvement project was to implement a mindfulness intervention, Three Good Things, via paper completion or mobile application, to determine if use of the intervention results in an increase in reported resilience among nurses on neuroscience units.

## Aims

Over a multi-week period, implement an evidence-based mindfulness intervention to increase the resilience scores among nurses in the primary neuroscience units

Over a multi-week period, implement an evidence-based mindfulness intervention to decrease the intention to leave the unit in the next six months among nurses in the primary neuroscience units

## References

1. Yu, F, Raphael, D, Mackay, L., Smith, M., & King, A. (2019). Personal and work-related factors associated with nurse resilience: A systematic review. *International Journal of Nursing Studies*, 93, 129-140. <https://doi.org/10.1016/j.ijnurstu.2019.02.014>
2. AMSN. (2017, February 16). *Nurse Resiliency*. Academy of Medical-Surgical Nurses. <https://www.amsn.org/practice-resources/healthy-practice-environment/nurse-resiliency>
3. Defilippis, T.M.S., Curtis, K., & Gallagher, A. (2019). Moral resilience through harmonised connectedness in intensive care nursing: A grounded theory study. *Intensive and Critical Care Nursing*, 57, 102785. <https://doi.org/10.1016/j.iccn.2019.102785>
4. Tabibnia, G., & Radecki, D. (2018). Resilience training that can change the brain. *Consulting Psychology Journal: Practice and Research*, 70(1), 59-88. doi:10.1037/cpb0000110

## Sample Demographics

Characteristic	N=22
Age, mean	36.86 (SD = 8.3)
Gender Identity, n (%)	
Male	5 (21.7%)
Female	17 (73.9%)
Highest Nursing Degree, n (%)	
Associates	4 (17.4%)
Bachelors	17 (73.9%)
Masters	1 (4.3%)
Current Work Unit, n (%)	
Neuro Critical Care	12 (52.2%)
Neuro Progressive Care	1 (4.3%)
Neuro Medical/Surgical	7 (30.4%)
Medical Stroke	2 (8.7%)
Yrs. of Nursing Experience, mean	10.2 (SD = 13.44)
Yrs. on Current Unit, mean	7.87 (SD = 12.95)

## Methods

**Design/Setting:** Pre-/post-intervention survey; 4 primary neuroscience units in a Midwest academic health center

**Sample:** RNs on the target neuroscience units were eligible to participate. RNs who were on orientation were excluded.

**Intervention:** Three Good Things via paper form or mobile application completed independently by participants as many shifts as possible over a nine-week period

What went well today?

☺

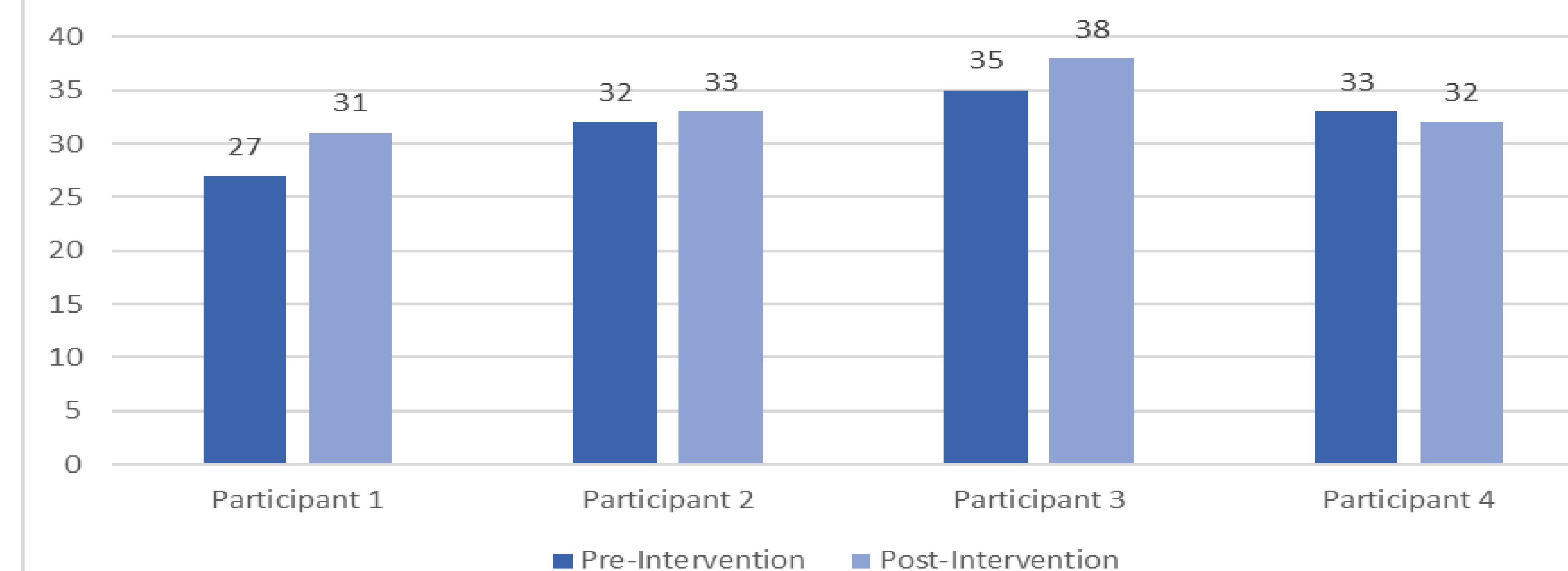
☺

☺

## Results

Connor-Davidson Resilience Score - 10-Item Summary  
Score Comparison

(Matched Pre/Post Surveys n=4)



Correlated Pre- and Post Surveys:

- One respondent moved from “Somewhat Likely to Leave” to “Not Likely to Leave”, a one-point decrease
- One respondent moved from “Definitely Not” to “Not Likely”, a one-point increase
- Two respondents had no change

## Conclusion

- Statistically significant improvement in Connor-Davidson Resilience Score-10 item, with a median summary score increase of 2.0 ( $p < 0.0001$ )
- While statistically significant, the increase in median summary resilience score may not be clinically significant
- No summative effect on intention to leave
- Further research is needed to determine if other positive psychological interventions or methods of participation (e.g., group bulletin board, team sharing) have a positive effect on resilience