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# Resiliency Building Techniques for Nurses to Improve the Workplace Environment

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# Learning Objectives

1. Describe the relationship between resilience and burnout;
2. Delineate two major findings from this study;
3. State at least one unexpected limitation of this study.

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*IRB approved from the hospital system and TTUHSC*

*No conflicts of interest*



# Introduction

- Nursing is emotionally stressful work which can lead to burnout and high turnover of nursing staff

(Adriaenssens, De Gucht, & Maes, 2015).

- Emotional dissonance of nurses' work may lead to burnout (Delgado, et. Al, 2017).



- Resilience building may positively impact the stress-cycle.
  - Prevents development of burnout by relieving work stress
  - Resilience is a moderating factor in relationship between stress/burnout

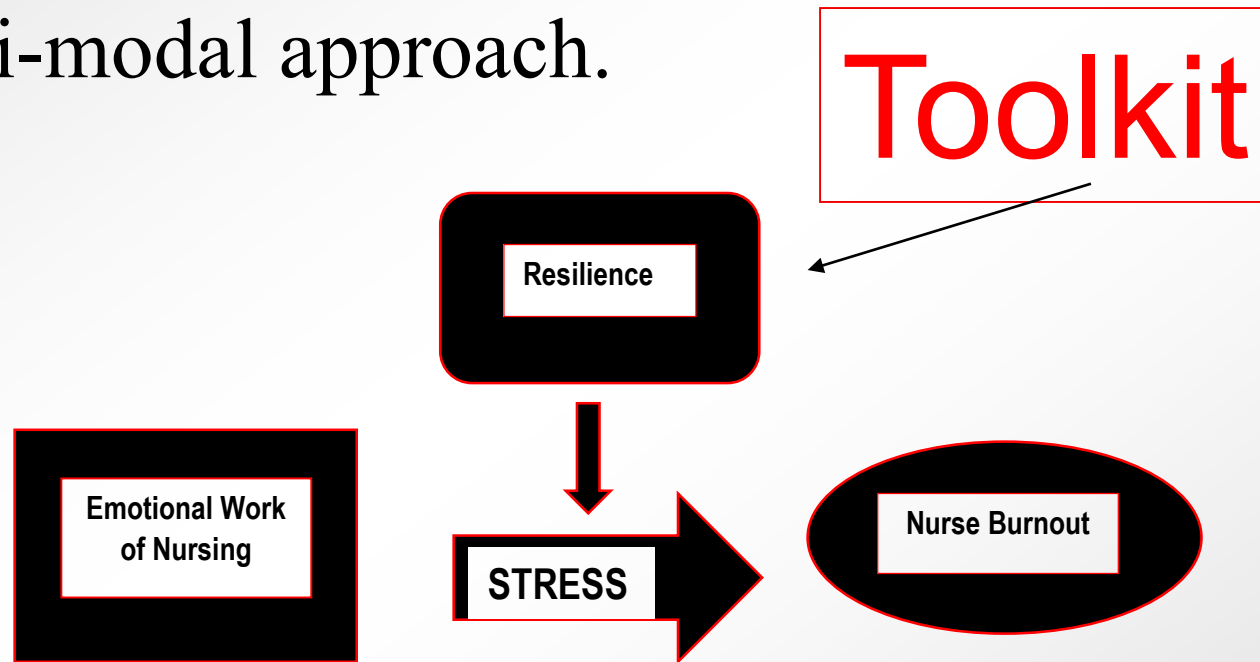
• **Resiliency:** an individual's ability to successfully adapt to life tasks in the face of social disadvantage or highly adverse conditions. Included in this is the workplace (Gillespie, Chaboyer & Wallis, 2007).

- **Stress management:** being able to cope with an acutely stressful situation



# Theoretical Framework

We proposed to impact nurse resiliency using a multi-modal approach.



# Nurse Scholar program

This study was the result of an evidence based nursing study designed by bedside nurses who were selected to be part of a Nurse Scholar Program at one Methodist Hospital in Texas.

- \*4 sister hospitals

- \*2-3 nurses/hospital

- \*designed brochures and posted flyers/recruited nurses/consented and gave tool kit of resiliency items agreed upon as a group



# Resiliency Tool kit

Engagement of nurses in resilience building activities *during working hours* has not been previously studied.

Stress reducing activities in the literature:

Guided relaxation

Deep breathing

Tetris/game apps



Lavender

Sudoku-mind activities

Adult coloring books



# Study

## Design:

A quasi-experimental pre- and post- test interventional study using within subjects design

## Aims:

1. Would a provided toolkit of resiliency building activities increase resiliency?
2. Which activities were most often utilized by nurses?
3. Would nurses continue using the activities once the study ended?



# Participants

## Inclusion criteria

- Registered nurses across 4 hospitals in the Methodist Hospital system in the Dallas Fort Worth areas of Texas
- Full or part time employment for a minimum of 1 year
- Working on a medical-surgical unit with a patient : nurse ratio of 5:1

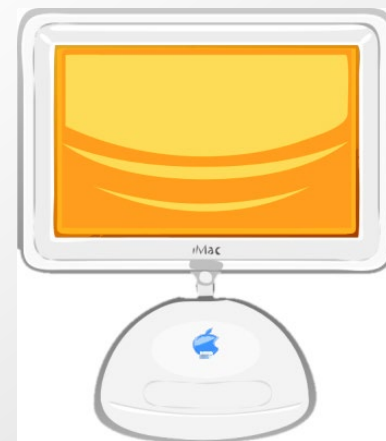




# Data Collection

## Instruments

1. Connor-Davidson Resiliency Scale (Connor & Davidson, 2003) pre- and post-test
2. Demographics: researcher created
3. Shift checklist: 10 times per participant; rated stress pre- and post- tool use.
4. Post-study questionnaire



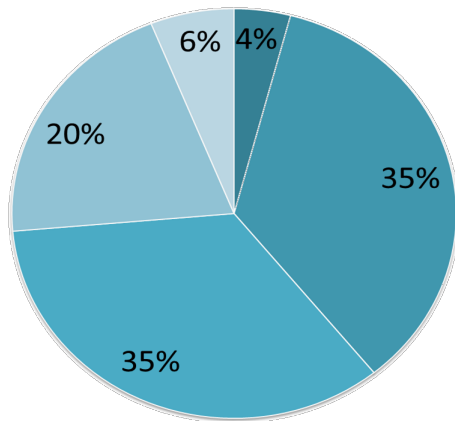
# Demographic Results

**N=77** participants completed all phases of study

142 nurses consented and submitted pre-test data

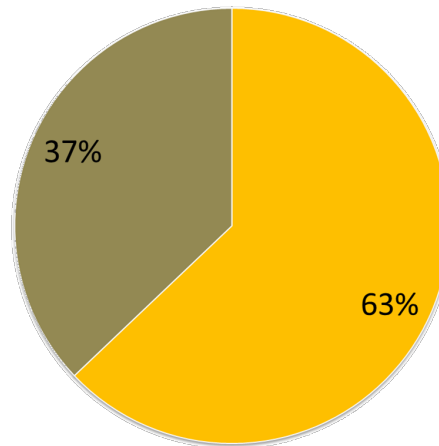
### Age

■ 18-24 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64



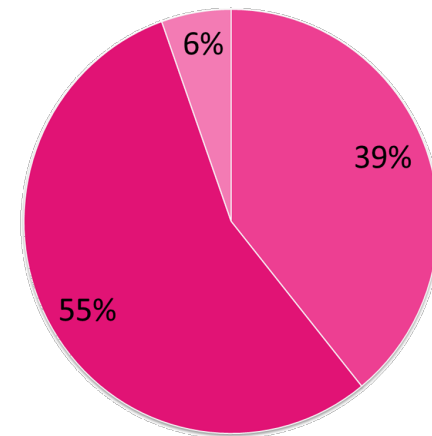
### Shift Worked

■ Days ■ Nights



### Nursing Degree

■ ADN ■ BSN ■ MSN



# Results

## *Attrition Rate*

- 46% for post-test
- 37% for all shift entries

## **Top three interventions used:**

- 1. Deep breathing (83%)
- 2. Lavender inhaler (58%)
- 3. Meditation (30%)

NOTE:



DF	t value	p
77	-2.141	p<.02



# Results

## Top 5 Work stressors reported:

1. Patient interactions
2. Patient's family interactions
3. High admission/discharge turnover
4. Patient death
5. Staff concerns



# Identified outside stressors

1. Family:	70%
2. Finances:	46%
3. Spouse/Partner	26.7%
4. Health	21.3%
5. Other	11.3%
6. Friends	10%



# Limitations

1. Technological delays—compatibility of Qualtrics survey and work emails; managing participants who started in multiple waves
2. Holidays—attempted to avoid
3. Nurses did not log into work email consistently; survey concluded if no log in after 10 days
4. Recruitment at one hospital much lower
5. Nurse Scholars were the conduit for communication
6. Statistically analyzing data was cumbersome due to multiple waves



# Lessons Learned & Next Steps

## Lessons Learned:

- Multiple delays affected retention; nurse respondents had to wait to start study
- Qualtrics delivered to work email-had to be Whitelisted
- Nurse Scholars not engaged if not part of the unit under study

## Next steps:

Serenity room on medical surgical units at one Methodist Hospital (to do interventions); relaxation areas at others

Re-do study with paper/pencil; revise questions/data to be collected. Consider measuring retention long term.



# Conclusion

The top 2 activities were easily accessible and expedient.

Tool kit activities used during shift increased resiliency at 6 weeks.

Increasing resiliency, while moderating stress, may improve the nurse work experience with the goal of decreasing burnout, thereby increasing retention rates.

HOW RESILIENT  
ARE YOU?





# Thank you!

Thank you to:

1. Methodist Hospital Systems, Dallas
2. Dr. Huaxin Song, TTUHSC for statistical advice and analysis
3. Adam Wood, TTUHSC SON IT for assistance with Qualtrics
4. Nurse scholars
4. Nurse study respondents



# Presentation References

- Adriaenssens J., De Gucht V. & Maes S. (2015) Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research. *International Journal of Nursing Studies* 52(2), 649–661. doi: 10.1016/j.ijnurstu.2014.11.004
- Beck, J. (2015). The zen of adult coloring books. *The Atlantic Daily*. Retrieved from: <https://www.theatlantic.com/health/archive/2015/11/sorry-benedict-cumberbatch-your-head-is-fine/414010/>
- Chen, MC, Fang, SH & Fang, L. (2015). The effects of aromatherapy in relieving symptoms related to job stress among nurses. *International Journal of Nursing Practice*, 21, 87-93.
- Connor, KM, & Davidson, JRT. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, 18, 76-82.
- Craigie, M., Slatyer, S., Hegney, D., Osseiran-Moisson, R., Gentry, M., Davis, S., Dolan, T., & Rees, C., 2016. A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses. *Mindfulness* 7, 764-774.
- Danesi, M. (2009). The appeal of Sudoku. *Psychology Today*. Retrieved from: <https://www.psychologytoday.com/blog/brain-workout/200906/the-appeal-sudoku>.
- Hao, S., Hong, W., Xu, H., Zhou, L., Xie, Z. (2015). Relationship between resilience, stress and burnout among civil servants in Beijing, China: Mediating and moderating effect analysis. *Personality and Individual Differences*, 83, 65-71. <https://doi.org/10.1016/j.paid.2015.03.048>
- Gillespie, B.M., Chaboyer W., & Wallis, M. (2007). Development of a theoretically derived model of resilience through concept analysis. *Contemporary Nurse*, 25(1-2), 124-135.
- Kappil SR & Sathiyaseelan, A. (2015). Tetris: A next generation stress buster? *Research Journal of Social Science and Management*, 5(3), 41-46.





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