

Creating Healthy Work Environments 2019

Resiliency Building Techniques for Nurses to Improve the Workplace Environment

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BACKGROUND: Stressful work environments have been shown to lead to burnout and high turnover in nurses (Adriaenssens, De Gucht, & Maes, 2015). Stress reduction strategies have been shown to increase resiliency in nurses, contributing to a healthy work environment (Craigie et al, 2016). When nurses feel cared for in their corresponding hospitals, patients receive the best quality care. Focused resiliency building activities can increase nurses' resources and address the effects of stress while nurses are on-shift. The emotional labor of nursing work involves managing the emotional demands of relating with patients, families and colleagues (Delgado, Upton, Ransie, Furness, & Foster, 2017). The studies detailed in this systematic review included pre- and post-test quasi-experimental designs that reported improvements in resiliency measures. The authors summarized that resiliency building activities appeared to offer assistance with the stressors nurses' experience, and encouraged continued research in this area. Additional stress reduction and/or resiliency building interventions noted in the literature included: guided meditation (Delgado et. al, 2017), deep breathing (Varvogli & Darviri, 2011), gaming (Kappil and Sathiyaseelan, 2015), Sudoku (Danesi, 2009), lavender aromatherapy (Chen & Fang, 2015) and adult coloring books (Beck, 2015). While resilience building has been shown to be an effective approach to positively impact the stress-cycle, the engagement of nurses in resilience building activities during their working hours has not been previously studied. Compounding the research is that varied interventions appeal to different people based on an assortment of demographics including age, culture, gender and length of time practicing (Delgado et. al, 2017).

AIM: This study was designed to determine: a) if a provided toolkit of resiliency building activities would increase resiliency over a 6 week period b) which activities were most often utilized by nurses; c) if nurses would continue using the activities once the study ended. IRB approval was obtained by the hospital system and the university affiliated with the nurse researchers. The hospital system funded this study.

SAMPLE: Nurse participants were recruited from four hospital campuses within one governing hospital system in an urban metropolitan area in one southern state in the last quarter of 2017. Two to four hospital nursing units were chosen from each hospital campus. The nurses were employed by the facility on a full or part time basis and practiced at the bedside, caring for similar medical/surgical patient populations with a 1:5 nurse to patient ratio.

INTERVENTION: Participants received a toolkit including a) guided meditation smartphone app, b) deep breathing smartphone app, c) gaming smartphone apps, d) Sudoku and mind game book, e) lavender aromatherapy, and f) adult coloring book with pencils.

DATA COLLECTION: Data were collected between November 2017 and February 2018 using Qualtrics. In Qualtrics, each participant had a unique link by which to access their data collection surveys. An initial assessment was completed prior to beginning that included demographic data and a baseline Connor-Davidson Resiliency Scale (CDRISC)(Connor & Davidson, 2003). Once an intervention was used, participants completed an investigator created online checklist over the course of 10 worked shifts within a 6-week period. After 10 shift checklists were completed, the participants completed a CDRISC post-test.

DESIGN: The design was a multi-site quasi-experimental pre- and post- test interventional study using within subjects design due to the absence of a control group.

RESULTS: Initially, 142 subjects completed the demographics, and 90 completed all 10 shift checklists, with 70 completing the post-test. The majority of participants worked during the day shift (60.4%), and were BSN graduates (55%). A paired t-test on the pre/post resiliency scores showed a significant difference after the use of the tools ($p < 0.02$, $df = 72$, $t = -2.37$). Outside stressors and demographics/variables were not related to the CDRISC scores. Subjects used the interventions more frequently and spent more time using them as the study progressed. Further, 97.1% reported a desire to continue using the interventions. The top four activities were: deep breathing 83.1%, lavender aromatherapy 57.7%, guided meditation 29.6% and gaming (Bejeweled) 28.2%.

DISCUSSION: This study looked at how nurses can modulate stress while on-shift in the hospital using activities provided by administration. The two most accessible and expeditious interventions were also the most popular (breathing exercises and a lavender inhaler). Having resiliency building activities readily available during work hours was shown to increase resiliency scores in a six week period. Stress has been shown to cause loss of nursing staff (Adriaenssens, De Gucht, & Maes, 2015; Delgado et. al, 2017). Offering a means of addressing stress during work hours appears to lead to increased resiliency. Making a culture change in hospitals to not only acknowledge but address work place stress may result in higher retention rates and a healthier workplace environment.

Title:

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Abstract Summary:

This 2018 quasi-experimental research study looked at how nurses can modulate stress and increase personal resiliency over a 6 week period, while on-shift in the hospital using a toolkit of provided activities. Making a culture change in hospitals to address workplace stress may result in a healthier workplace environment.

Content Outline:

I. Introduction

A. When nurses feel cared for in their corresponding hospitals, patients receive the best focused care.

B. Resilience building has been shown to be an effective approach to positively impact the stress-cycle.

1. Engagement of nurses in resilience building activities during working hours has not been previously researched

II. Study

A. Design

1. a quasi-experimental pre- and post- test interventional study using within subjects design

B. 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?

C. Participants

1. Nurses across 4 hospitals in one hospital system in a southern state

2. Full or part time employment for a minimum of 1 year

3. Working on a medical-surgical unit with a patient : nurse ratio of 5:1

D. Data Collection

1. Instruments

a. Connor Davidson Resiliency Scale: pre-post

b. Demographics

c. Shift checklist: 10 times per participant

E. Results

1. Resiliency scores: statistically increased

2. Top 2 activities used: breathing exercises and lavender inhaler

3. 97.1% will continue using activities

III. Discussion/Conclusion

A. The top 2 activities were easily accessible and expeditious

B. Activities available during shift shown to increase resiliency at 6 weeks

C. Increasing resiliency, while decreasing stress can improve workplace environment

D. Questions?

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Professional Experience: I have been researching the areas of burnout and stress in nurses over the last 11 years, since receiving my nursing doctorate. I have presented at STTI, NLN, and SNRS conferences over the years on these topics. I was awarded an NLN research grant in 2008. I have taught at the following universities: UCLA, University of Texas at Arlington, and currently at Texas Tech University. I was also a dean of nursing at Los Angeles City College.

Author Summary: Dr. Mintz-Binder received her DNP at Case Western Reserve University in 2007, in the area of academic leadership. Most recently, she is an associate professor of nursing at Texas Tech University Health Science Center School of Nursing and is a nurse scientist with Methodist Mansfield Medical Center. Dr. Mintz-Binder has been researching the areas of burnout and stress in nurses over the last 11 years, in academic program directors, students and now clinical nurses.

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Professional Experience: 2000-Present Texas Tech University Associate Professor Health Sciences Center School of Nursing Lubbock, Texas Andersen, S. & Bezanson, J. L. (2016). Brief Report: Do pregnancy experiences predict cardiovascular disease in women? *The Journal for Nurse Practitioners*. Online only at <http://www.sciencedirect.com/science/article/pii/S1555415516300058> doi.org/10.1016/j.nurpra.2016.03.019 Andersen, J. S., & Owen, D. C. (2014). Helping Relationships for Smoking Cessation: Grounded Theory Development of the Process of Finding Help to Quit. *Nursing Research*, 63(4), 252-259. doi:10.1097/NNR.0000000000000040 Guenther, J. L., & Andersen, J. S. (2013). Encouraging Civility among Nurse Practitioner Students Enrolled in Online Courses. *International Journal of Nurse Practitioner Educators*, 2(1). <http://libjournal.uncg.edu/index.php/ijnpe/article/view/688> Guenther, J. L., & Andersen, J. S. (2012). Encouraging Academic Integrity among Nurse Practitioner Students Enrolled in Online Courses. To appear in *International Journal of Nurse Practitioner Educators*, 1(2). <http://libjournal.uncg.edu/index.php/ijnpe/article/view/446> Andersen, J. S., Youngblood, E., & Andersen, P. (2011). Computerized smoking awareness education for low literacy Hispanics. *Computers, Informatics, Nursing*.

Author Summary: Dr. Andersen received her PhD from University of Texas Health Sciences Center at San Antonio in 2004. Since then, she has taught in the Family Nurse Practitioner program and is research faculty at Texas Tech University Health Sciences Center. She is consults as a nurse scientist with the Methodist Hospital System in Dallas-Fort Worth. Her research interests range from Nurse Practitioner education to health promotion. Her practice has been with the underserved.