

# The Effects of Mindfulness App Use to Decrease Nurse Practitioner's Burnout:

## A Quality Improvement Project

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### Introduction

- Burnout is prevalent in all healthcare providers at some point in their career (Wehrwein, 2020).
- Healthcare providers across all specialties and care settings are experiencing high rates of burnout.
- Burnout is described as long-term, unresolved job related stress that leads to exhaustion, cynicism, feelings of detachment from one's job responsibilities, and lack of a sense of personal accomplishment (Judge-Ellis, 2017 & Kane, 2020).

## **Background & Significance**

#### **Current Situation:**

- The US spends annually \$4.6 billion in provider turnover and non-clinical hours due to burnout (Han, et al., 2019).
- 60 organizations participated in a joint statement.
  Action Collaborative committed to reverse trends in clinician burnout (National Academy of Medicine, 2020).
- Burnout has become one of the nation's fastest growing public health concern due to its effects on:
  - Providers
  - Direct impact on patient care
  - ➤ Prevalence (2011 38%, 2014 48%; double of the general pop)
- Burnout is linked to various healthcare problems:
  - > Fatigue
  - > Insomnia
  - Heart disease
  - Depression
  - Anxiety
  - Obesity
- Chronic provider burnout is costly and extends to organizations due to increase in absenteeism and decrease work engagement
- WHO defines burnout as:
  - "syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed" (WHO, 2019).

## Aims & Objectives

- Specific: Nurse practitioners' burnout
- Measurable: Pre and post OLBI questionnaire
- Achievable: Decrease burnout with free
  Mindfulness app
- Relevant: Reduce healthcare costs, improve wellbeing, and influence practice
- Timeline: February 2020 to August 2021

## Methodology

- Design: Quality improvement used a pre/post
- Population: Nurse practitioners
- Setting/ Recruitment: Survey applied through
  Facebook Pages (The Pennsylvania Nurse
  Practitioners Group and The Nurse Practitioner
  Group)
- Consent: Delivered via Rutgers School of Nursing email
- Intervention:
  - > OLBI questionnaire:

Negative and positive questions, feelings of exhaustion and disengagement from work

Mindfulness App:

Free, on demand and user friendly

Budget:

There is no cost to the researcher or compensation to participants.

Timeline:

Project planning started in February 2020

Project completion August 2021

- Research
- > IRB submission May 20201
- ➤ IRB approval June 2021
- Data analysis July 2021
- ➤ Data interpretation July 2021
- Dissemination July/August 2021

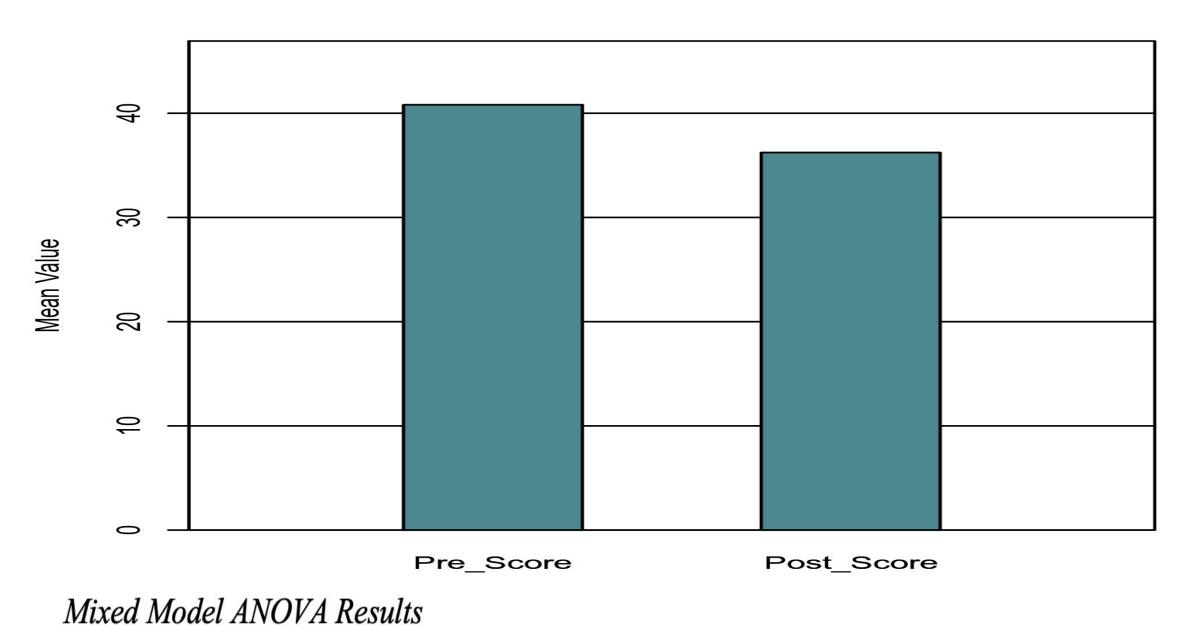
#### Results

- A two-tailed paired samples t-test
- OLBI pre\_score and post\_score was significantly different.
- The pre\_score was statistically significant than the post\_score (t(35) = 3.32, p = .002).

Two-Tailed Paired Samples t-Test for the Difference Between Pre Score and Post Score

Pre_S	core	Post_S	core		
M	SD	M	SD	t	p
40.81	5.43	36.22	7.22	3.32	.002

Note. N = 36. Degrees of Freedom for the t-statistic = 35.



Source	df	SS	MS	F	p	$\eta_p^2$
Between-Subjects						
Practice settings	3	183.42	61.14	1.33	.283	0.11
Residuals	32	1474.06	46.06			
Within-Subjects						
Within Factor	1	357.72	357.72	10.51	.003	0.25
Practice settings: Within.Factor	3	111.06	37.02	1.09	.368	0.09
Residuals	32	1089.32	34.04			

- ANOVA analysis of variance between the pre\_score and post\_score between the levels of practice\_settings was not significant; F(3, 32) = 1.33, p = .283.
- The main effect for the within-subjects factor was significant, F(1, 32) = 10.51, p = .003.
- The interaction effect between the within-subjects factor and practice\_settings was not significant, F(3, 32) = 1.09, p = .368.

## Discussion

- The QI project results were equitable to the finding in the literature.
- The reduction of burnout was statistically significant as evidenced by the difference of the OLBI pre and post scores (t(35) = 3.32, P = .002).

## **Discussion Continuation**

 Mindfulness practice promotes healthy behaviors, and it is an effective preventive measure against burnout.

## **Implications**

- Clinical Practice: Mindfulness practice introduction to nurse practitioners assisting them to develop and establish new healthy habits.
- **Economic:** Mindfulness app is free and leads to reduction and prevention of burnout.
- Healthcare quality and safety: Mindfulness app reduces nurse practitioners' burnout and therefore further research is needed to establish a correlation on burnout, quality of care provided and client safety.
- Policy implication and practice change: Mindfulness app can be easily integrated into the nurse practitioner's daily routine as well as be part of the new organizational strategies to mitigate burnout.

#### Conclusion

The QI project showed that the practice of mindfulness via an app reduces nurse practitioners burnout. Individuals as well as organizations should invest in the development of new strategies to reduce and prevent nurse practitioners' burnout. Further research is needed to establish the relationship of nurse practitioner's burnout and client safety as well as costs associated with non productive hours.

## References

Please scan the QR code to access all the references used in this project and contact information.

