

Utilizing the Calm™ Mobile Application to Reduce Burnout in Nurse Anesthetists

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Introduction

Background:

- CRNAs are exposed to situations that require high-pressure responsibilities and managing life-threatening scenarios
- Repeated stressors evolve into chronic stress that contributes to burnout manifesting in forms of psychological, social, and physical symptoms
- Burnout can increase employee turnovers, impair team relationships, and decrease the quality of care delivered

Literature Review:

- Mindfulness mobile application interventions found improvements in awareness and well-being

Objective & Aims

Objectives:

To evaluate the implementation of an 8-week Calm™ mobile application for nurse anesthetists and its effects on burnout

Aims: Determine the impact of the intervention

- on emotional exhaustion, depersonalization, and personal accomplishment
- in general happiness
- usability for nurse anesthetists

Methods

Design: Pre- and post-test

Setting: Pediatric Hospital in Saint Petersburg, Florida

Data Collection: MBI-HSS and SHS surveys and post intervention usability survey

Data Analysis: Wilcoxon signed rank test and descriptive statistics

Sample: 4 CRNAs

Intervention

The CALM™ app: #1 downloaded mindfulness app in the app stores – music, sleep, meditation, breathing, 3 minute



Results

Aim 1: Statistically/Clinically insignificant, p values > 0.58 (EE), 0.59 (DE), 1.0 (PA)

Aim 2: Statistically/Clinically insignificant, p value > 0.18

Aim 3: High usability ratings

Table 1. Demographic Characteristics	(N = 4)
Age, n (%)	
29 to 39	2 (50)
40 to 49	1 (25)
50 to 59	1 (25)
Sex, n (%)	
Female	4 (100)
Race, n (%)	
Caucasian	4 (100)
Experience, n (%)	
6 to 10	1 (25)
11 to 15	3 (75)

Table 2. Usability Survey	Median	ICR	Survey Responses
The app was easy to use.	8.5	3.0	Likert Scale: 1 – 10 Disagree to Agree, N/A
It was easy for me to learn to use the app.	9.0	2.75	
I like the interface of the app.	8.5	3.25	
I feel comfortable using this app in social settings.	8.0	4.75	
Overall, I am satisfied with this app.	8.5	2.5	
The app was useful for my health and well-being.	8.0	3	
I would continue to keep using the app.	8.0	2.25	
The app helped incorporate mindfulness into my schedule.	7.5	4	
On average, how many times in a week did you use the app?	2.0	0	1. 0 < 1 2. 2 - 5 3. 5 - 7 4. > 7
On average, how many minutes did you use with each program?	2.5	2.5	1. 0 < 3 2. 4 - 5 3. 5 - 10 4. > 15

Discussion

Strengths: Positive indications for mobile platform

Limitations: COVID-19, small non-diverse sample size

Recommendations: Further research with larger sample sizes during a downward curve of COVID-19

Conclusion

Discovering a method to integrate mindfulness for CRNAs such as a mobile application to practice mindfulness may be an effective method decrease burnout