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Introduction

- High demands of nurse anesthesia programs (NAP) lead to student registered nurse anesthetist (SRNA) stress and anxiety affecting self-efficacy and coping skills needed to succeed
- Mindfulness programs proven effective in other student populations, but no literature exists for NAP
- Evidence-based with positive impact on physical, psychological, cognitive well-being



Purpose

- To assess if SRNAs will improve traits of self-efficacy, develop positive coping skills, and stress management needed to succeed in NAPs by learning about mindfulness and its techniques

Background and Significance

Factors Affecting SRNA Retention & Success

- Self-efficacy, coping/social support, and stress impacts program success
- 7.2/10 average level of SRNA stress
- Common coping mechanisms negative (alcohol use, gossip, expression of inappropriate negative feelings)
- Stress affects cognition- motor control, learning, memory formation = decreased academic and clinical productivity
- Individuals with low self-efficacy less likely to succeed

What is Mindfulness?

- Helps focus on present moment without judgment to accept current situation for what it is
- Techniques to build mindfulness:
 - **Meditation:** listening to spoken words used to guide focus
 - **Diaphragmatic breathing** and **Mindful walking:** taking notice of body sensations with each deep breath and step
 - **Mindful eating:** focus on food textures/flavors to build attention

Positive Effects of Mindfulness on Other Student Populations

- **Undergraduate Students:** maintained well-being and coped with academic stress exams, lowered overall perceived stress, improved sleep, increased mindfulness
- **Nursing Students:** beneficial non-pharmacological approach useful in academia and future careers to improve depression, anxiety, stress
- **Medical Students:** greater life satisfaction, improved cognition/mental health, less psychological distress during medical school

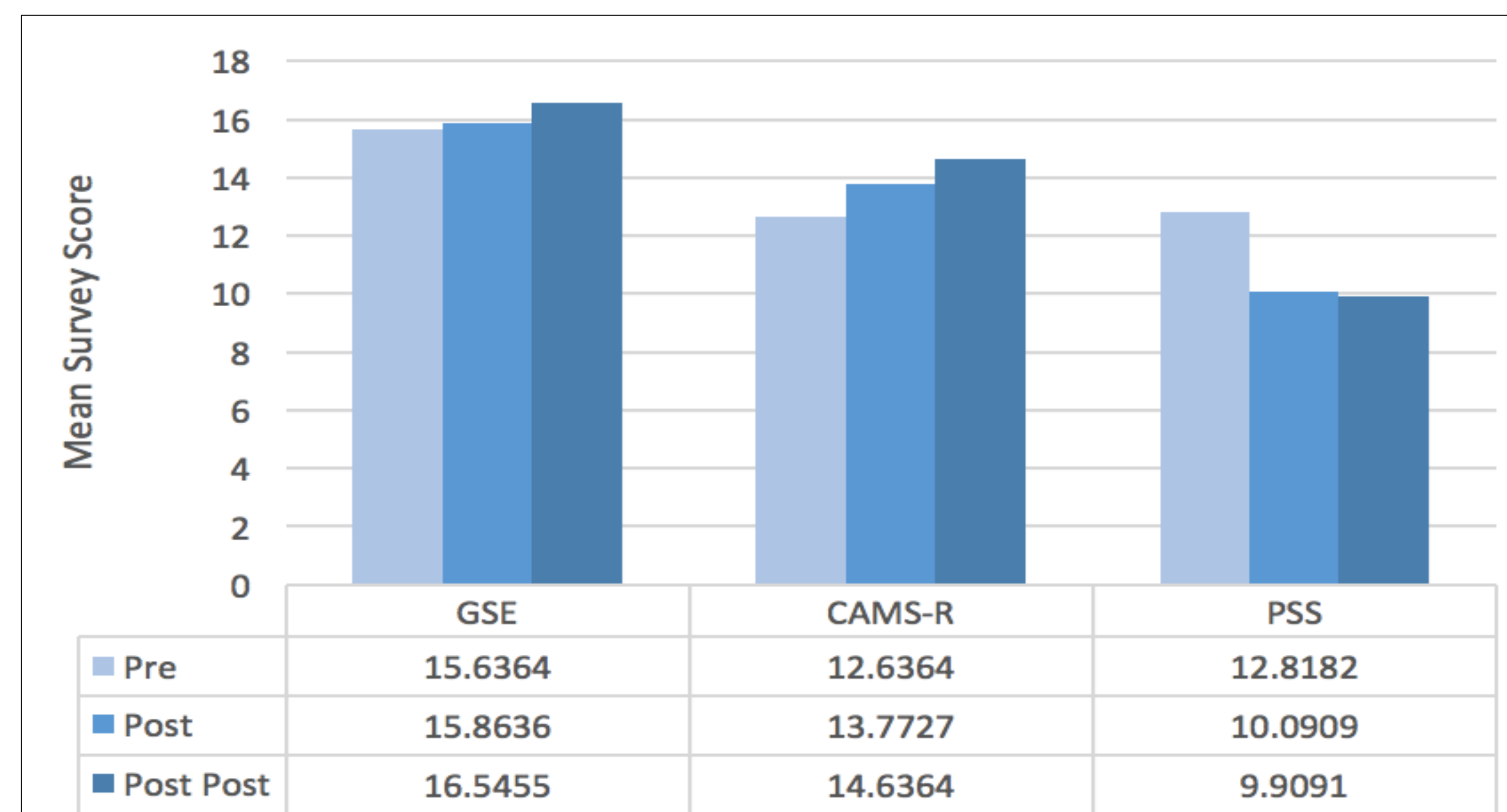
Methodology

- **Design:** Prospective, qualitative, pilot study
- **Sample:** Second year SRNAs beginning first clinical rotations during a challenging didactic curriculum (n = 22)
- **Intervention:** Mindfulness program implemented over 5 days in 5 weeks
 - Lecture discussing benefits and techniques
 - Meditation, diaphragmatic breathing, mindful walking, mindful eating practice
- **Measures:**

<u>Adapted Generalized Self-Efficacy Scale (GSE)</u>	<u>Adapted Perceived Stress Scale (PSS)</u>	<u>Adapted Cognitive & Affective Mindfulness Scale-Revised (CAMS-R)</u>
<p>Instructions: Write the number that best describes your opinion below.</p> <p>Response Format: 1=Not all true, 2=Hardly true, 3=Moderately true, 4=Exactly true</p> <p>_____ 1. I can always manage to solve difficult problems if I try hard enough.</p> <p>_____ 2. It is easy for me to stick to my aims and accomplish my goals.</p> <p>_____ 3. I am confident that I could deal efficiently with unexpected events.</p> <p>_____ 4. I can remain calm when facing difficulties because I can rely on my coping abilities.</p> <p>_____ 5. I can usually handle whatever comes my way.</p> <p>Scoring: Add the numbers from each item. The total equals the self-efficacy score. The higher the score, the greater the self-efficacy.</p>	<p>Instructions: Write the number that indicates how often you felt a certain way last month.</p> <p>Response Format: 0 = Never, 1 = Almost never, 2 = Sometimes, 3 = Fairly often, 4 = Very often.</p> <p>_____ 1. In the last month, how often have you felt that you were unable to control the important things in your life?</p> <p>_____ 2. In the last month, how often have you felt nervous and "stressed"?</p> <p>_____ 3. In the last month, how often have you found that you could not cope with all the things that you had to do?</p> <p>_____ 4. In the last month, how often have you felt that you were on top of things?</p> <p>_____ 5. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</p> <p>Scoring: Scores are obtained by reversing responses to the positively stated item #4 and then summing across all scale items. The greater the score indicates higher perceived stress.</p>	<p>Instructions: For each of the items below, rate how much each of these ways applies to you.</p> <p>Response Format: 0=Never, 1=Almost never, 2=Sometimes, 3=Fairly often, 4=Very often</p> <p>_____ 1. It is easy for me to concentrate on what I am doing.</p> <p>_____ 2. I can accept things I cannot change.</p> <p>_____ 3. I try to notice my thoughts without judging them.</p> <p>_____ 4. I am able to accept the thoughts and feelings I have.</p> <p>_____ 5. I am able to focus on the present moment.</p> <p>Scoring: Sum values for items 1 - 5. Higher values reflect greater mindful qualities.</p>

- **Analysis:** Descriptive statistics using Wilcoxon signed rank test to assess data through SPSS

Results



	GSE: Pre v. Post	GSE: Pre v. Post Post	CAMS-R: Pre v. Post	CAMS-R: Pre v. Post Post	PSS: Pre v. Post	PSS: Pre v. Post Post
Z	-0.663	-1.721	-2.047	-3.260	-2.541	-3.331
Asymp. Sig. (2-Tailed)	0.507	0.085	0.041	0.001	0.011	.001
p-value < /> 0.05	p-value > 0.05	p-value > 0.05	p-value < 0.05	p-value < 0.05	p-value < 0.05	p-value < 0.05

- Mean values from GSE and CAMS-R survey scores increased and PSS scores significantly decreased after the mindfulness program
- CAMS-R and PSS Pre v. Post and Pre v. Post Post scores were statistically significant, while GSE scores were not statistically significant

Discussion

- Study results showed that a mindfulness program provides positive psychological benefits to SRNAs
 - Developed more mindfulness
 - Decreased stress levels
 - Taught new coping skills
 - May not have significant impact on increasing self-efficacy
- Greater improvements in mindfulness (13% ↑) and stress (29% ↓) two months following program may indicate long-term sustainable benefits

Implications

- Reducing stress and anxiety leads to better SRNA academic and clinical performance = improved patient safety and increased NAP success
- Can be implemented at other NAP across the nation to improve attrition

Summary

- Implementing a mindfulness program in a NAP can be a cost-effective method to prevent harmful effects of stress
- SRNAs will develop valuable skills that can be used anytime to help overcome challenges in their personal lives, academia, and future careers

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