NYSANA Deliverable

This Doctor of Nursing Practice (DNP) project employed a quantitative cross-sectional survey design to assess burnout levels, coping mechanism utilization, and barriers to coping among Certified Registered Nurse Anesthetists (CRNAs) within a professional state organization. Cross-sectional methods allowed simultaneous measurement of exposures and outcomes in a defined population following specific inclusion criteria, consistent with standard methodological guidance (Setia, 2016). The project surveyed up to 50 eligible CRNAs; 37 ultimately participated. Eligibility criteria included being over 18, English-speaking, board-certified in New York State, and a member of the state organization. Recruitment occurred through an email distributed by the organization, and informed consent was completed electronically before data collection.

Data collection occurred through a 41-item REDcap survey comprising demographic questions, the Maslach Burnout Inventory (MBI) for medical personnel, and a section assessing participation in evidence-based coping mechanisms. The MBI, a validated and widely used tool for evaluating burnout, included subscales for emotional exhaustion, depersonalization, and personal accomplishment (Mind Garden, 2025). Additional questions assessed coping practices such as exercise, meditation, relationship support, adequate breaks, and awareness of organizational wellness resources. An open-ended question elicited perceptions of barriers to coping. Data were analyzed using descriptive statistics and independent t-tests in SPSS, with direction from a quantitative methods expert.

Protection of human subjects was ensured through Institutional Review Board approval at the University at Buffalo. Participation was voluntary and anonymous, and data were stored on

secure, password-protected systems. Findings will be disseminated to stakeholders, and data will be archived for 3 years, as per the IRB protocol.

Demographic results indicated that the sample was primarily female (70.3%) and Caucasian (78.4%), with most holding a DNP degree and employed in large academic medical centers. Using the MBI's SUM scoring method, results showed that 46% of participants scored above the comparative mean on emotional exhaustion, 40% scored above the comparative mean on depersonalization, and 38% scored below the comparative mean on personal accomplishment. Although burnout-specific thresholds were not calculated, these proportions indicate a mixed alignment with norms for medical providers from the comparative sample.

Coping mechanism participation varied. Most respondents reported strong social support (94.6%) and frequent exercise engagement (78%). However, religion (32.4%) and meditation (29.7%) were less commonly practiced. Only 29.7% reported that their facility offered resilience training. The primary barrier identified was a lack of time, reported by 68% of respondents to the open-ended question. Inferential statistical testing showed no significant associations between coping mechanisms, job characteristics, and burnout scores across the MBI subscales.

The project's findings highlighted that CRNA burnout in this sample may be lower than previously published rates; for example, Leah et al. (2022) reported burnout prevalence exceeding 79% in the CRNA workforce. Differences in measurement tools may explain this discrepancy; however, the results may indicate improving conditions for CRNAs. The strong reliance on social support and exercise as coping strategies, as well as the dominance of time as a barrier, provides insight for future research. Limited institutional resources for resilience building were concerning, as structured programs have demonstrated effectiveness across health care settings.

Orem's Self-Care Deficit theory aligned well with the project's purpose, as the findings support the need for CRNAs to engage in self-care behaviors and for systems to facilitate these behaviors. Strengths of the project included its use of the MBI, its relevance to a critical contemporary issue, and the diversity of participant practice settings. Limitations included a small sample size, a restricted recruitment window, and data collection from a single state, all of which reduced the generalizability of the findings. The cross-sectional design also limits the ability to infer causation. Future work should explore additional coping mechanisms, further examine time constraints among CRNAs, and evaluate organizational strategies to reduce burnout.

CRNAs are encouraged to critically assess their own well-being, utilize wellness resources provided by professional organizations, such as the AANA (link to AANA wellness resources below), as part of their membership, and advocate for increased institutional support for the development of resiliency training programs. The coping mechanisms outlined in this project, which include, physical exercise, meditation, practicing religion, having a good support system, being in a healthy relationship, taking part in resiliency training, and getting sufficient breaks, should be things that all CRNAs strive to have in their personal lives and careers as they can help reduce stress and ultimately burnout syndrome.

AANA Wellness Resource Link:

https://www.aana.com/membership/here-for-you/health-and-wellness/

ANALYSIS OF BURNOUT RATES AMONG CERTIFIED REGISTERED NURSE ANESTHETISTS (CRNAs) IN NEW YORK AND BARRIERS TO USE OF EFFECTIVE COPING MECHANISMS

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Introduction

- Burnout is defined by the World Health Organization as *"a syndrome conceptualized as resulting from a chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy"*. (World Health Organization, 2019)
- Effective coping mechanisms have been studied and shown to help reduce stress levels and burnout rates in healthcare providers worldwide.

Background & Significance

- Study findings indicate that healthcare worker burnout can result in physical and mental health problems as well as relationship problems for the provider (Del Grossa & Boyd, 2019.)
- Healthcare institutions suffer financially from provider burnout, which is linked to increased staff turnover and shortages.
- 79.3% of CRNAs surveyed felt disengaged from their job or experienced burnout. Leah et al. (2022)

Purpose & Aims

- The purpose of this Doctor of Nursing Practice (DNP) project was to assess burnout scores compared to a similar sample population and the use of coping mechanisms, as well as barriers to use of coping mechanisms. In CRNAs who are members of a state organization to promote the importance of self-care and longevity in the field. This aimed to educate CRNAs who are members of the state organization on the use of effective coping mechanisms and resources available to them through organizational memberships.

Theoretical Framework

- Dorothea Orem's Self-Care Deficit Theory

Methods

- **Design:** Quantitative cross-sectional survey, supplemented with a single open-ended question.
  - Demographics
  - Maslach Burnout Inventory for Medical Personnel (MBI)
  - Coping mechanism participation
  - Perceived Barriers to use of coping mechanisms
- **Sample:** CRNAs in New York State who are members of the New York State Association of Nurse Anesthetists (NYSANA).
- **Recruitment:** Standard recruitment was via email sent to NYSANA member base.

Data Collection

- Data was collected via the REDcap platform and then transferred to SPSS for statistical analysis.

Data Analysis

- Descriptive statistics were run along with multiple independent sample t-tests to analysis the data and compare those with MBI scores higher than the sample mean to those with lower scores to see if there was any correlation between MBI scores and use of coping mechanisms.

Results

Table 1

MBI Scores (N=37)	Comparative Scores	Survey Scores
Emotional Exhaustion	M = 22.19	> 22 = 17 (46%) < 22 = 20 (54%)
Depersonalization	M = 7.12	< 7 = 22 (59%) > 7= 14 (40%)
Personal Accomplishment	M = 38.53	< 39 = 13 (38%) >39 = 21 (62%)

- **Participants:** 37 respondents, mostly female (37%) and Caucasian (78.4%), largely holding DNP degrees (59.5%) and working in an academic center (62.2%) or surgical centers (37.8%) (with varying shift lengths and workloads.
- **Burnout (MBI):** About half scored above comparative norms for emotional exhaustion and depersonalization, while most had higher personal accomplishment scores. No statistically significant relationships were found between job characteristics or coping mechanisms and burnout scores.
- **Coping & Barriers:** Most participants reported good support systems, regular exercise, and being in a healthy relationship, but fewer practiced meditation or religion. Time was the most reported barrier to using healthy coping mechanisms (n = 11; 68%)

Table 2 (n = 37)

Coping Mechanisms	Participation %
Sufficient Breaks	81.1% (n=30)
Exercise	78.4% (n=29)
Practice Religion	32.4 (n=12)
Meditation	29.7% (n=11)
Healthy Relationship	78.4% (=29)
Training	29.7% (n= 11)
Support System	94.6% (n=35)

Discussion

- Burnout scores varied, with many CRNAs scoring **below** comparative MBI means, suggesting potentially **lower burnout** than prior studies.
- Most participants used supportive coping mechanisms (support systems, exercise, healthy relationships), while **lack of time** was the main barrier
- Gaps remain in facility-based resources: few reported access to resiliency training, and many were unaware of AANA support tools.

Strengths & Limitations

- Strengths included using the validated MBI tool, addressing a timely topic, and surveying a diverse CRNA population.
- Limitations included a small, single-state sample, brief recruitment period, and cross-sectional design, which reduced generalizability and statistical significance.

Conclusion & Future Implications

- Future research should explore additional coping mechanisms and address **time** as the major barrier, as CRNAs remain at high risk for burnout.
- CRNAs are encouraged to use coping strategies, seek available AANA resources, advocate for better institutional support, and regularly assess their own well-being.

Resources to Manage Stress

- The AANA website has a whole "wellness" section dedicated to CRNAs and residents which includes links to the AANA helpline, and individual sections with helpful information on managing things such as burnout, depression, PTSD, sleep issues, substance use disorder and other wellness education resources.
- No matter what stage of your career you are in it is essential to always put yourself first and take care of yourself so you can adequately take care of others.
- Link to AANA wellness resources page https://www.aana.com/membership/here-for-you/health-and-wellness/