

A Description of Impostor Phenomenon in Certified Registered Nurse Anesthesiologists

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Disclosure Statement

Conflict of Interest Disclosure Statement

Jeffrey R Darna, PhD, DNP, CRNA, ACNP-BC, FAANA

- I have no financial relationships with any commercial interest related to the content of this activity.
- I will **not** discuss off-label use during my presentation

Learner Outcomes

At the conclusion of the presentation, the learner will be able to:

1. Identify and describe Impostor Phenomenon in Certified Registered Nurse Anesthesiologists
2. Explain how Impostor Phenomenon may influence clinical practice, leadership opportunities, and individual wellbeing.
3. Discuss strategies to manage Impostor Phenomenon tendencies in themselves and the nurse anesthesia profession.

Research Team



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Impostor Phenomenon is the self-perception of **intellectual phoniness** and **professional ineptitude** despite clear evidence of success often experienced by **high-achieving individuals** that results in **avoidance behavior, professional under-development, and psychological distress.**

Feel like a fake

Discount praise

Attribute success to luck or an error

Impostor Phenomenon Origins



Pauline Clance

- Clance & Imes (1978)
- Georgia State
- Feminism Movement, Second Wave
- Published Case Series
- Psychotherapy with 150 women
 - **Accomplished professionals**
 - **Women self-identified as frauds**



Suzanne Imes

Clance & Imes: Main Findings

IP behavior emerges from common societal expectations, e.g., girls cannot perform math

Impostors use maladaptive behaviors to conceal their perceived intellectual inadequacy

Persistent fear of being discovered as an intellectual fraud

Avoided conflict or expressing contrasting viewpoints because of fear of being perceived as unintelligent

Using charm & insightfulness to obtain support

Avoiding adverse societal effects that occur when women express confidence

Literature Synthesis

**45 Years
&
350
Research Studies**

Prevalence
9 to 82% across
multiple, peer-
reviewed
professions

**Gender IP
Prevalence**
Women = Men

**Gender IP
Intensity**
Women ≠ Men

**Nursing
Prevalence**
74.6% CNS
46.6% Physicians

**Cross-
sectional
Correlational
Study Designs**
Measuring IP in a
Specific Population

Correlations
with Racism,
Identity, &
Survivor Guilt

**Inverse
Relationship**
with Age &
Professional
Experience

Associated Conditions

- Psychological distress
- Anxiety
- Depression
- Low self-esteem

Some Considerations

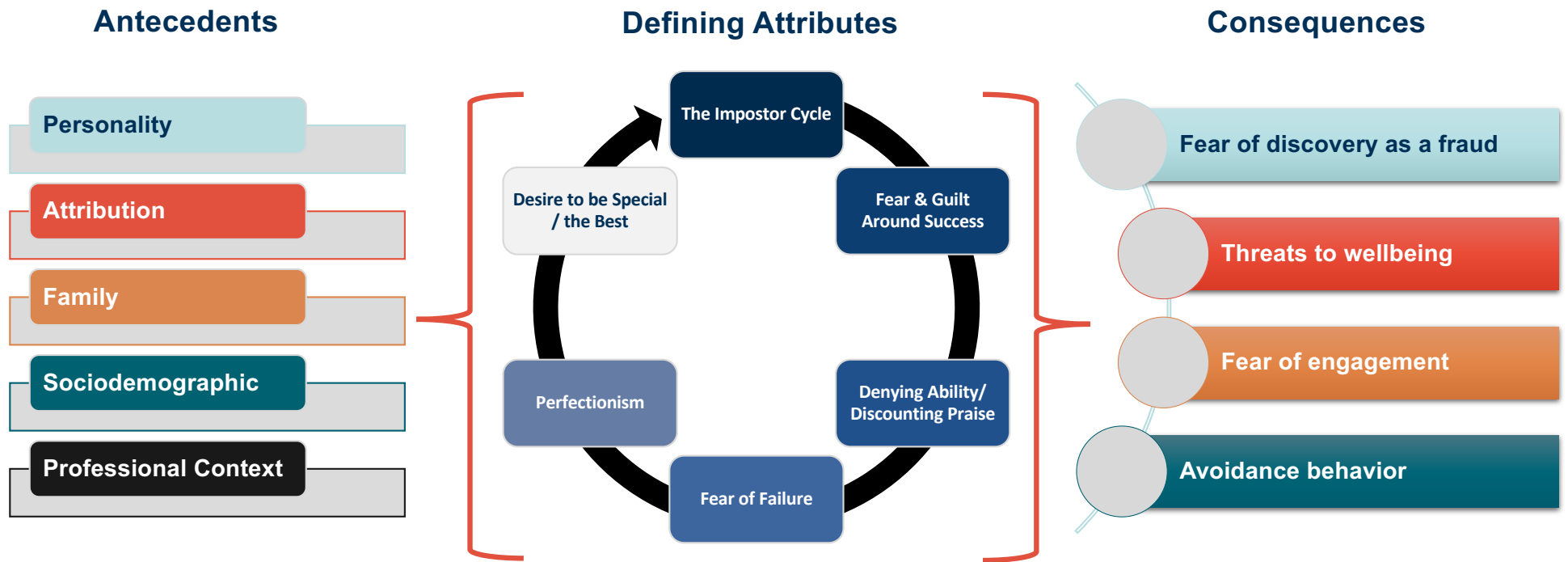
Not an official psychological disorder

No *standardized* diagnostic criteria

No EBP guidelines

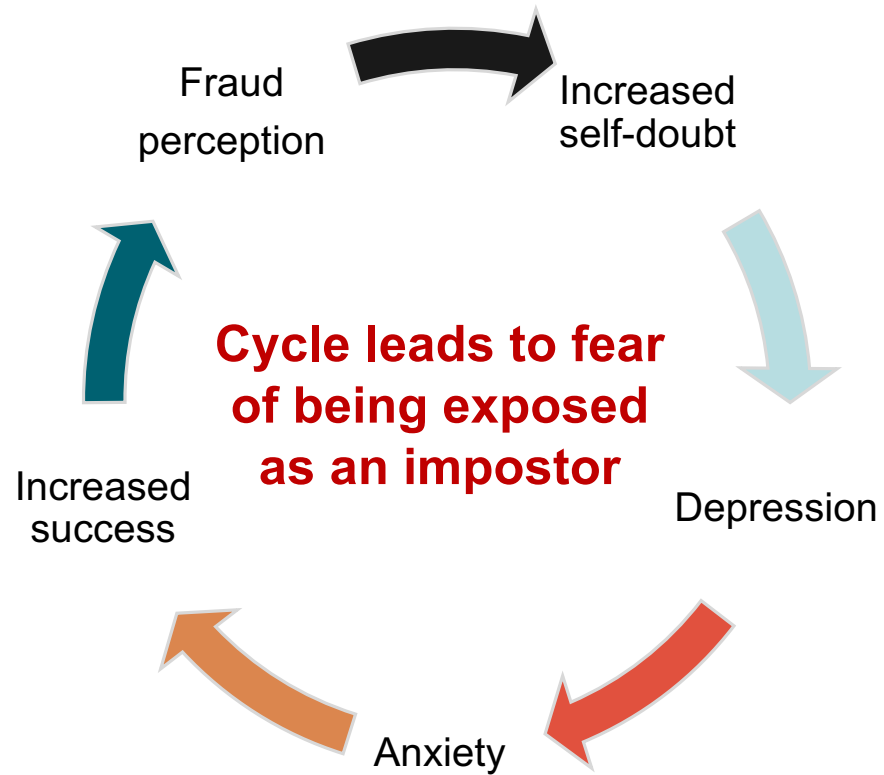
Evolving, multidimensional construct

IP Concept Relationship



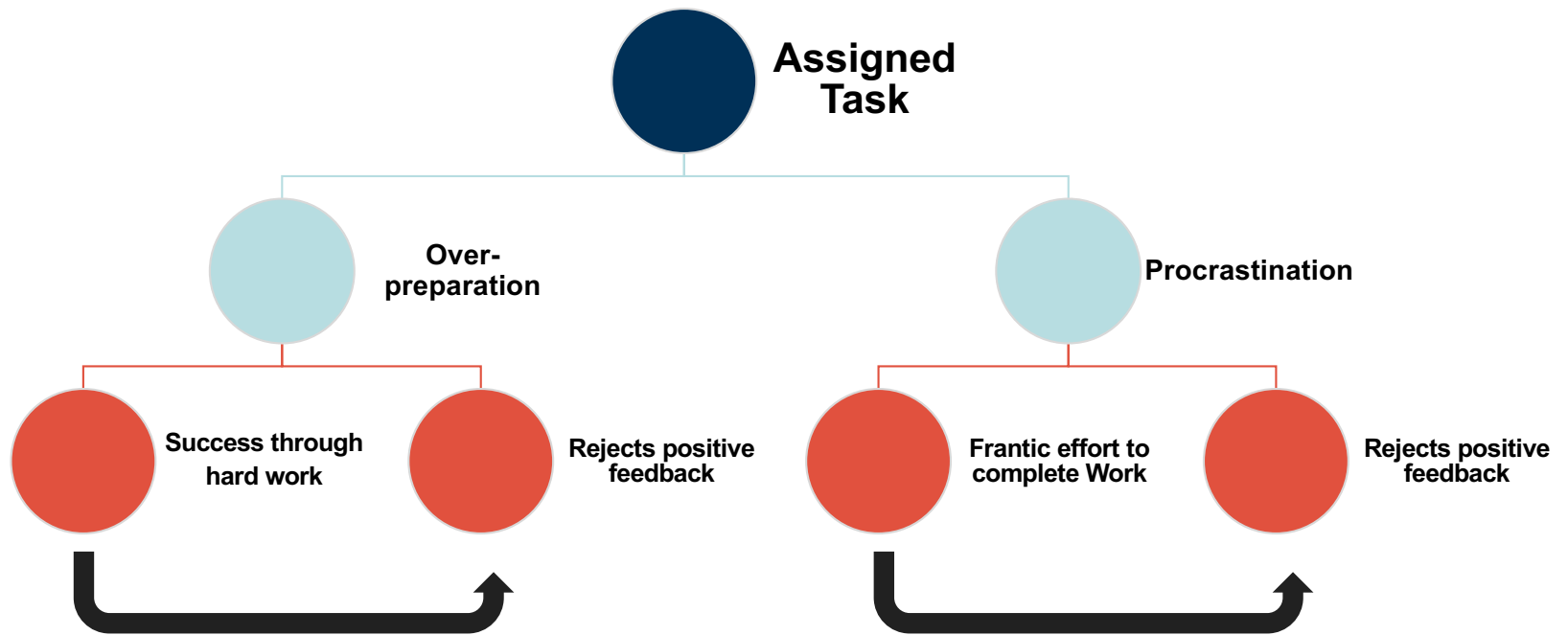
Source: Clance, 1985

The Impostor Cycle



Source: Clance, 1985

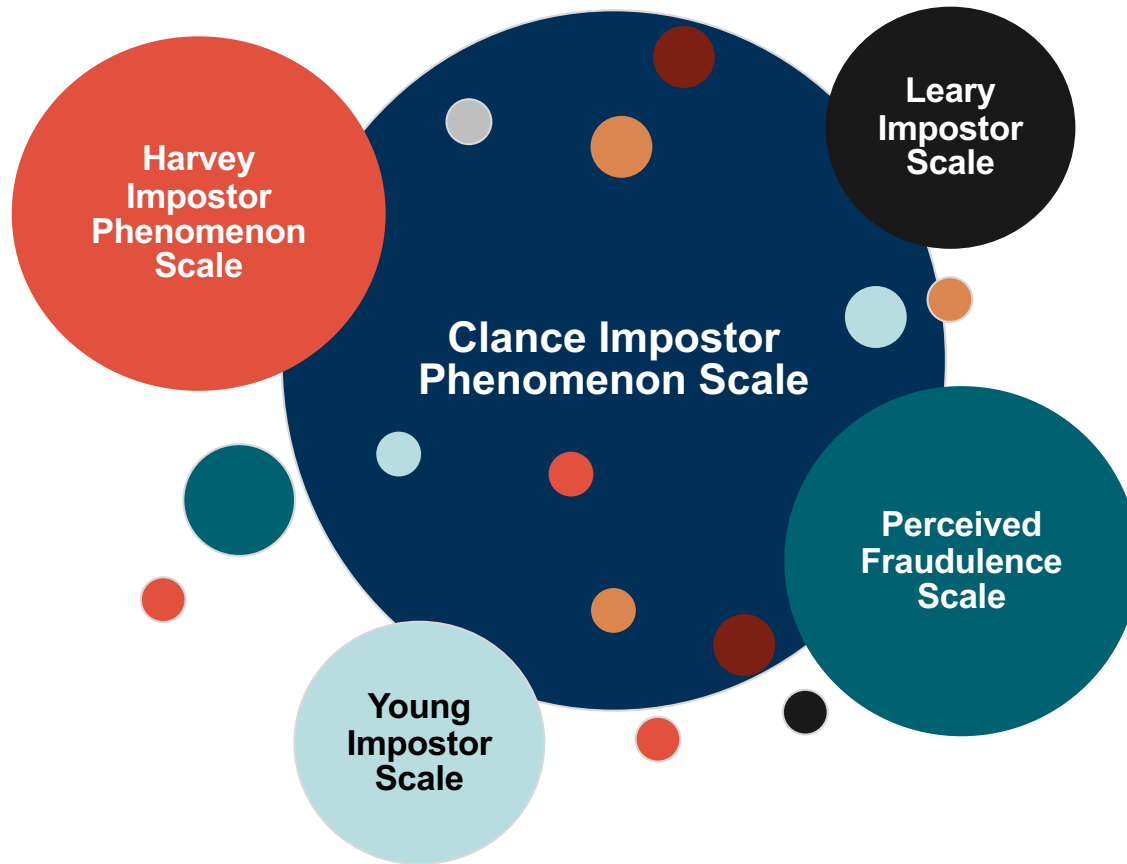
IP Induced Pathway



Select Career-related Effects of IP

Excessive & Compulsive Work	Group Micromanaging	No Independent Practice	Professional Sub-Optimization
Burnout	Evading Leadership Roles	ACT Member Underutilization	Career Dissatisfaction

Measuring Impostorism



CIPS Instrument **(Most Frequently Used)**

20 item, self-administered psychometric instrument

5-point Likert scale response

Measures IP presence and frequency

Score range 20 to 100

- Clance (1985) 40 indicates IP
- Holmes et al. (1993) 62 (based on 1 FP/0 FN)
- Cozzarelli & Major (1990) median split score
 - 65 (positive IP) and 48 (negative IP)

Cronbach's alpha ranged from 0.85 to 0.96

Three subscales:

- **fake (.84), discount (.79), & luck (.70)**

Sufficient content validity

Uncertain construct validity

- Chrisman (1995) EFA (assumed perfect reliability)
- French et al (2008) CFA (**high interconnectedness**)
 - **LuckFake = 0.79**
 - **LuckDiscount = 0.77**
 - **DiscountFake = 0.97**

Total CIPS score recommended for diagnosis

Are CRNAs at Risk for IP?

- Intellectual
- Skilled profession
- Advanced education & training
- High achievers
- Peer reviewed
- Evaluated on outcomes
- Societal expectations
- Inter-professional messaging



IP Self-Measurement



Measure Your IP Tendencies – **Voluntary Assessment**

1. QR Code



2. Copy to a Browser

https://usc.qualtrics.com/jfe/form/SV_eVxfQKD8OAb0BbU

3.

Limited paper surveys for in-person attendees

At the END of the Survey - Note Your TOTAL Score





< Activities



Visual settings



Edit



Join by Text Send **jdarna401** to **22333**

Clance Impostor Phenomenon Survey - January 2023

0%

(A)

0%

(B)

0%

(C)

0%

(D)

CIPS Scoring

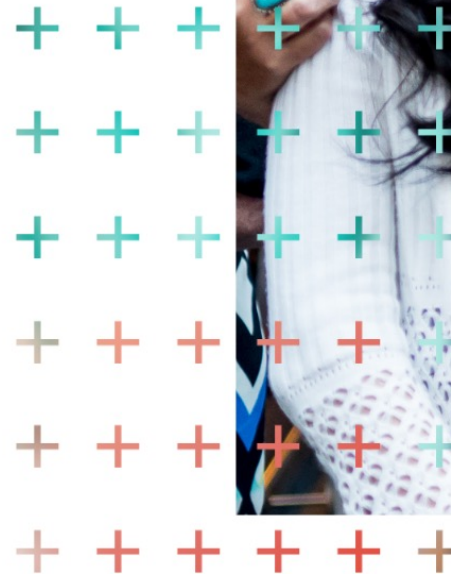
CIPS Score Range	Impostor Tendency
20 to 40	Few IP Feelings
41 to 60 (indicates clinically-relevant IP)	Moderate IP Feelings
61 to 80	Frequent IP Feelings
81 to 100	Intense IP Feelings

IP Management Suggestions

<ul style="list-style-type: none">• Name it	<ul style="list-style-type: none">• Place a name on the feeling; keeps it in context• Reflect on whether the feeling is justified
<ul style="list-style-type: none">• Mentorship	<ul style="list-style-type: none">• Find a peer mentor and seek objective feedback
<ul style="list-style-type: none">• Consider your strengths	<ul style="list-style-type: none">• Maintain a list of accomplishments
<ul style="list-style-type: none">• No one is perfect	<ul style="list-style-type: none">• Be willing to be uncomfortable• Mistakes are inevitable
<ul style="list-style-type: none">• Change your thinking	<ul style="list-style-type: none">• Be aware of negative self-talk – it has no value• Choose a different script
<ul style="list-style-type: none">• Keep learning	<ul style="list-style-type: none">• Be honest with what you do not know• Ask for help
<ul style="list-style-type: none">• Just do it – “Shipping”	<ul style="list-style-type: none">• Get comfortable with being uncomfortable• Mindfully work through your concerns

National Research Data

A Description of Impostor Phenomenon in Certified Registered Nurse Anesthesiologists



Primary Research Question

What is the prevalence and intensity of impostor phenomenon in certified registered nurse anesthetologists?

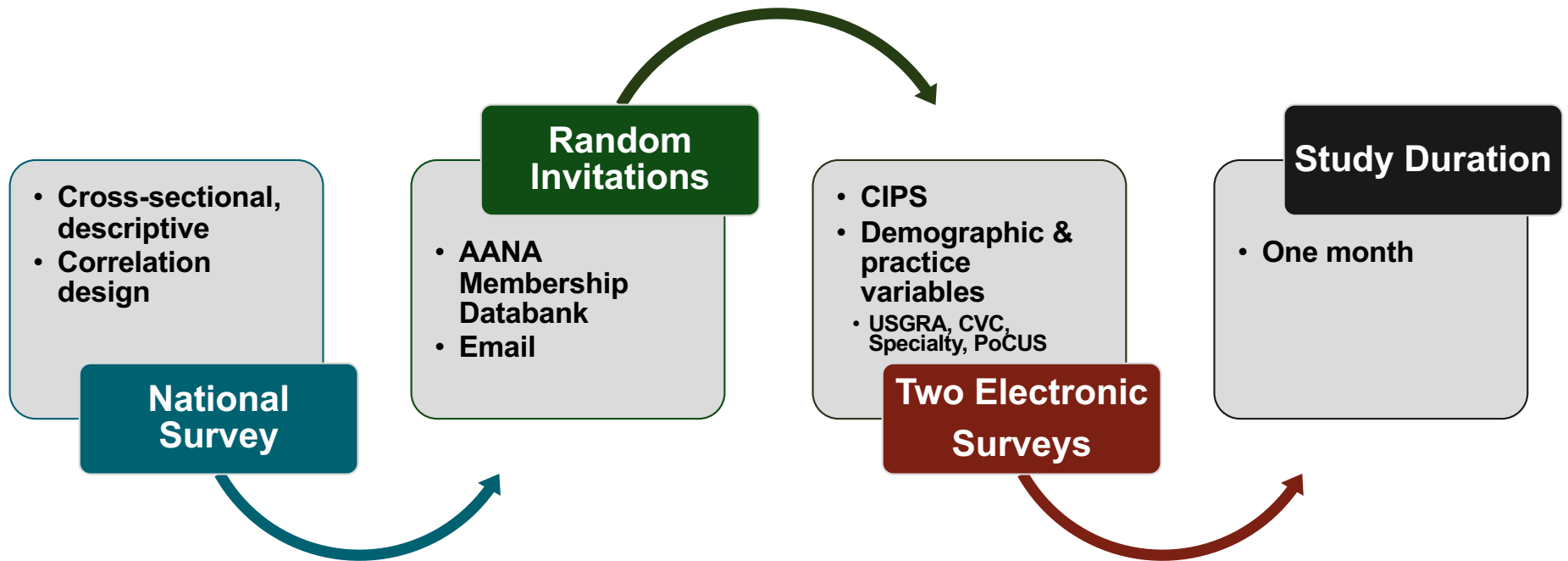
Study Aims

Primary aim: to describe select sociodemographic variables, anesthesia practice model, CRNA practice behaviors, and impostor phenomenon in a random sample of CRNAs.

Secondary aim one: to describe **the relationship** between select sociodemographic variables, anesthesia practice model, CRNA practice behaviors, and IP in a random sample of CRNAs.

Secondary aim two: to describe **the variance in IP** accounted for by select sociodemographic variables, anesthesia practice model, and CRNA practice behaviors in a random sample of CRNAs.

Methods



Participant Recruitment

348
Participants
Desired

3000
Random
Email
Invitations

1 Month
Recruitment Period
with a Reminder

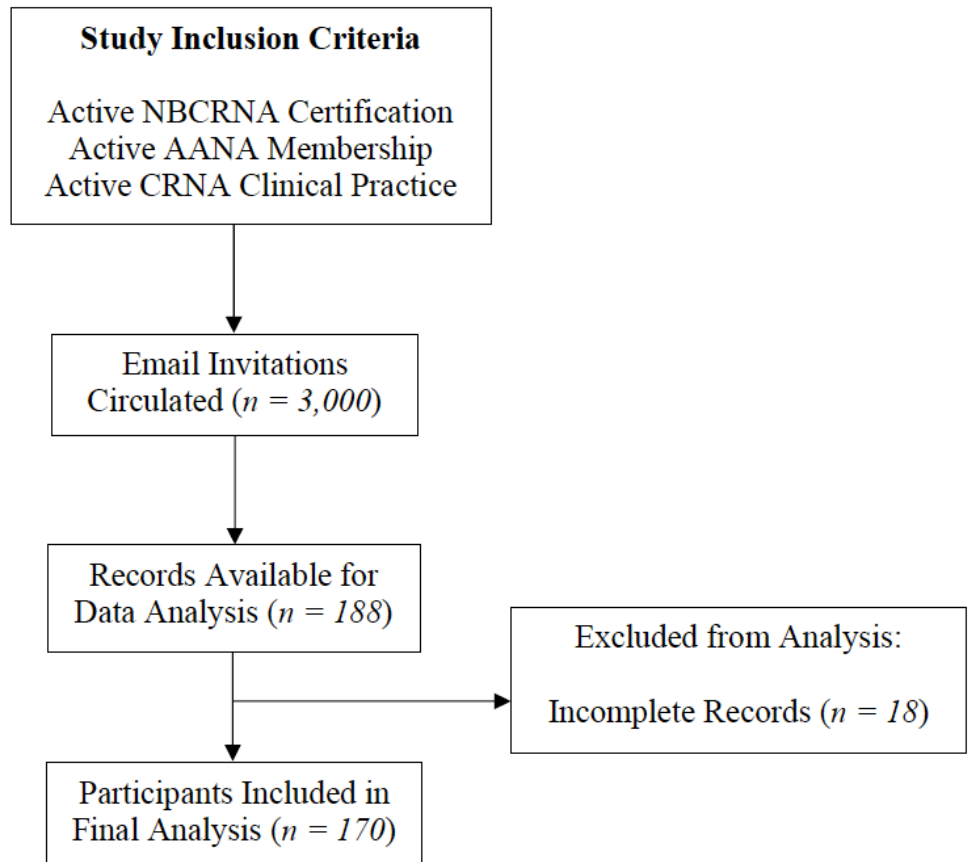
No Request for
Exemption to
Invitation Cap

Set Inclusion &
Exclusion Criteria

48.9%
of the *a priori*
calculation

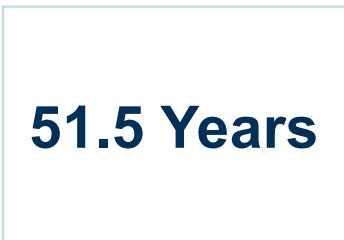
5.7%
Response
Rate

Participants Included in Final Analysis

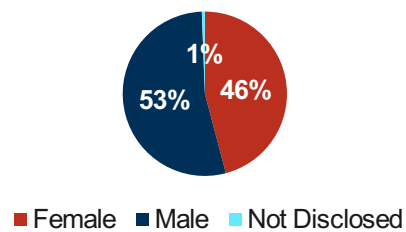


Sample Characteristics

Mean Age



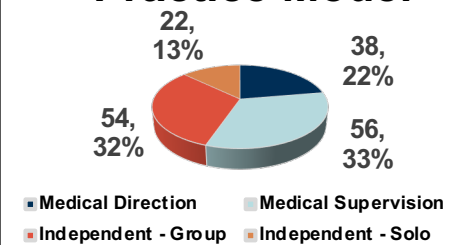
Gender Identity



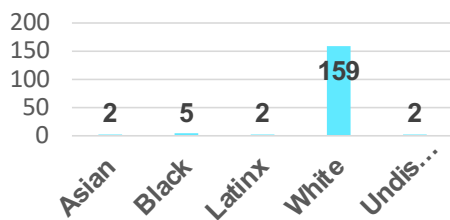
Mean Practice Years



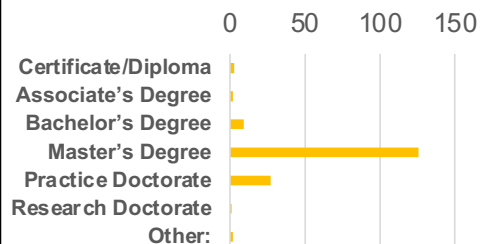
Practice Model



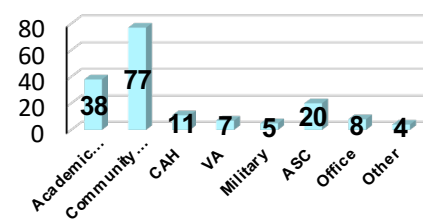
Race/Ethnicity



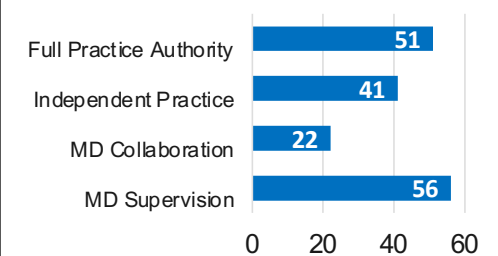
Education Level



Practice Setting



State Scope



Sample vs 2021 AANA Membership Data

	<i>p</i> value
Age	.001
Gender	.048
Race/Ethnicity	.025
Years of Practice	< .001

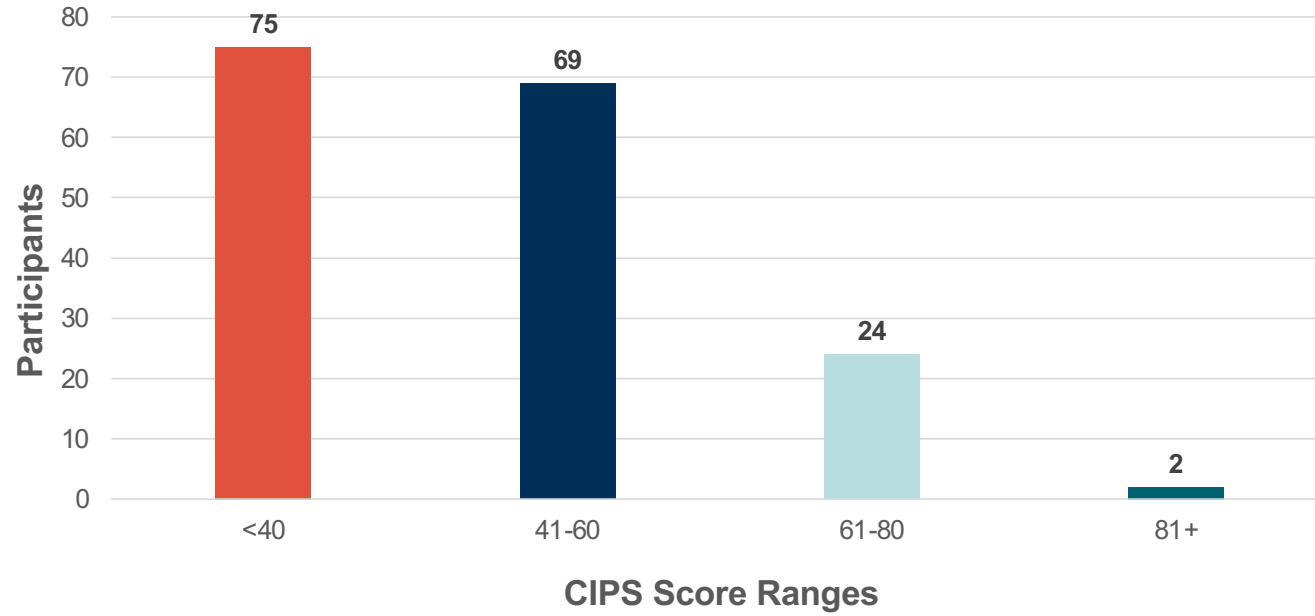
Note. Chi-square Goodness-of-Fit test

Primary Aim

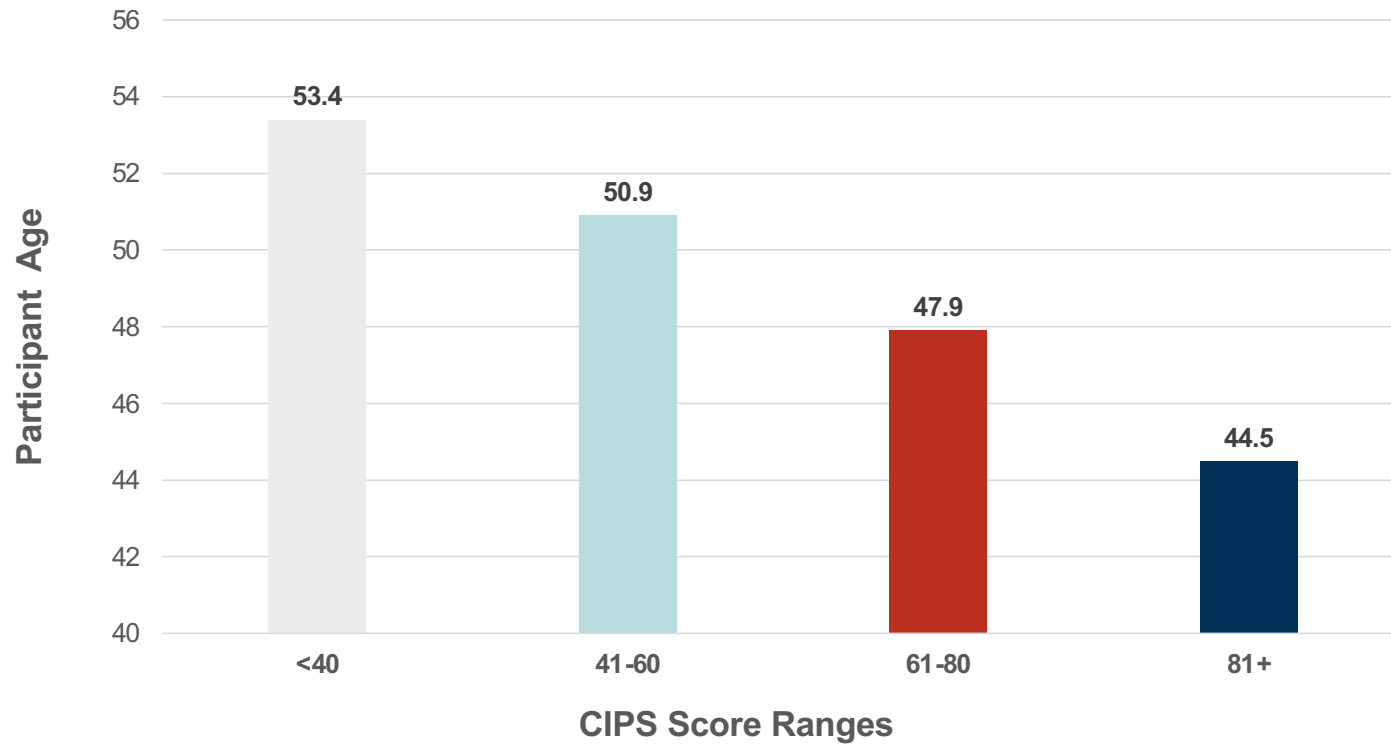
55.9% Prevalence

44.6 Mean CIPS Score

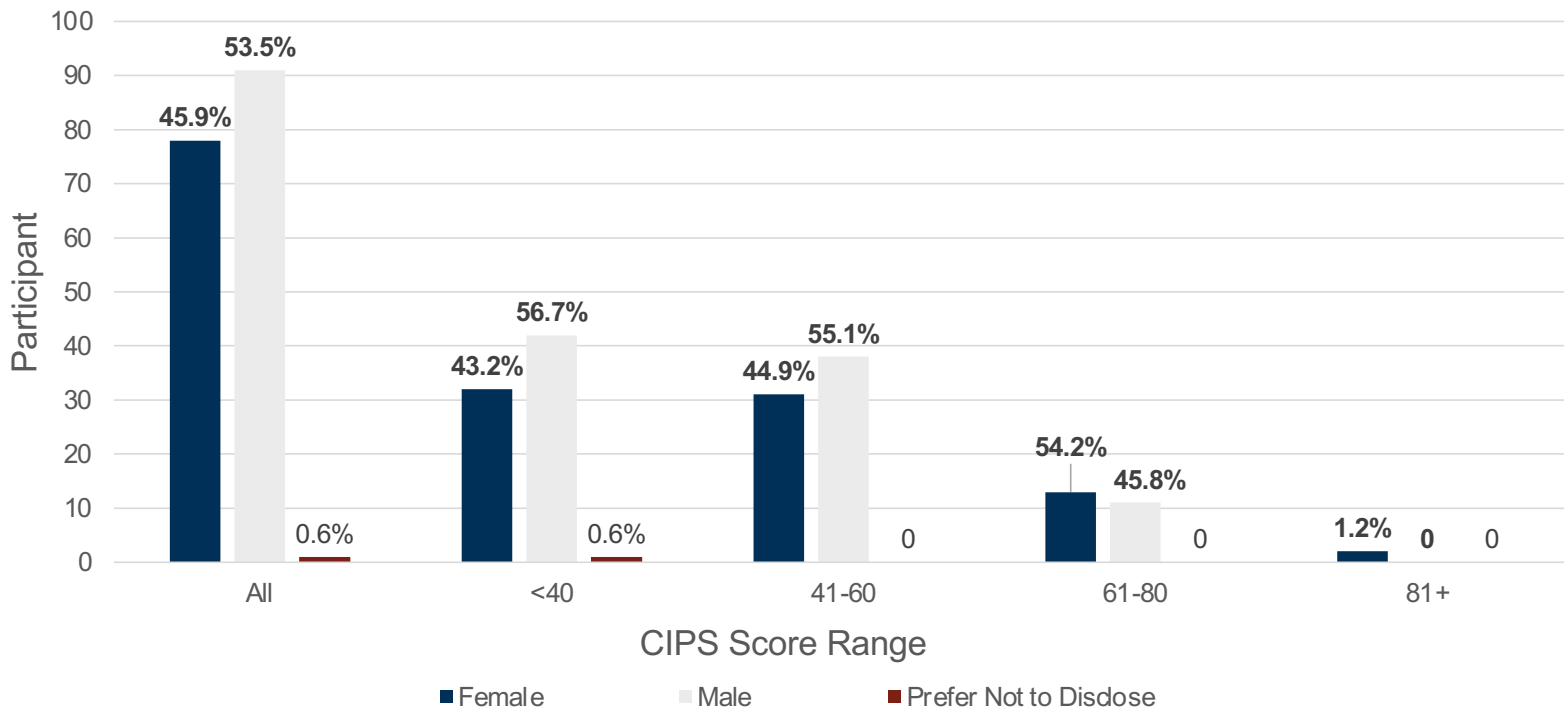
CIPS Score Distribution



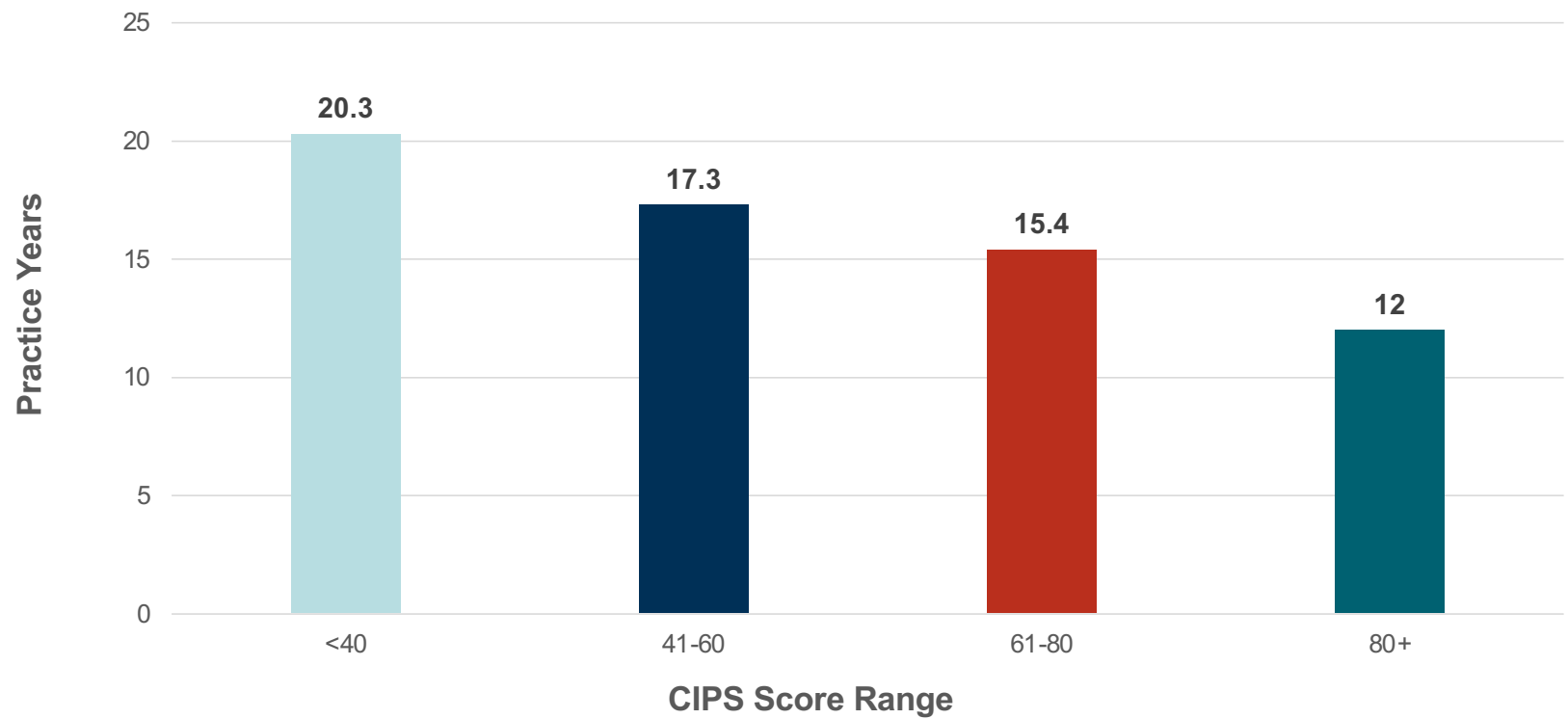
CIPS Score Ranges by Mean Age



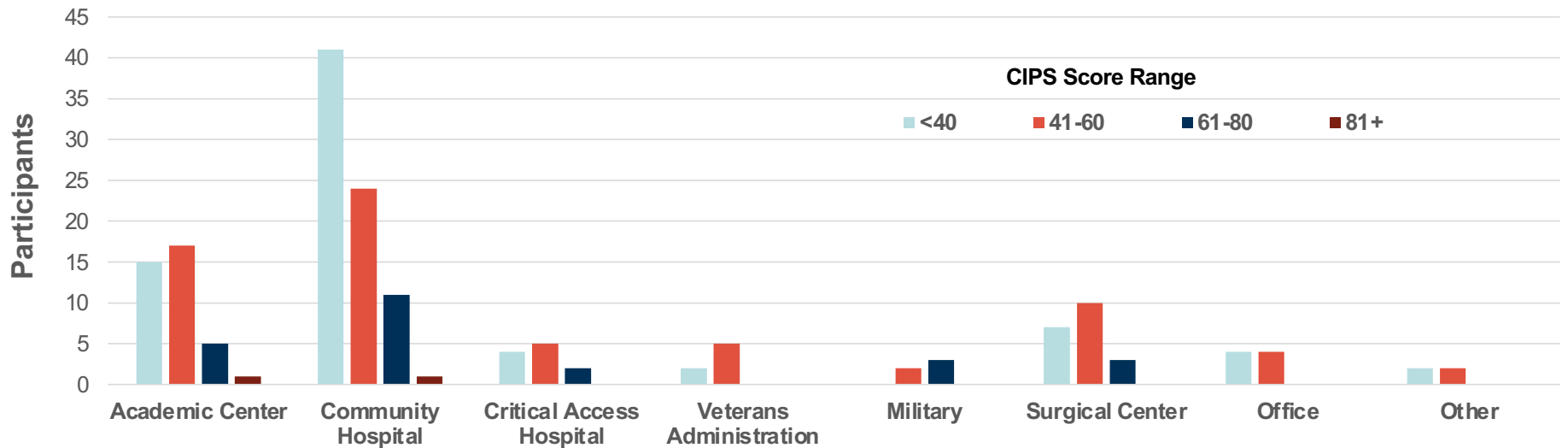
CIPS Scores by Gender Identity



CIPS Scores by Mean Practice Years



CIPS Scores by Practice Setting



Secondary Aim 1

CIPS Score Arrangement	3 Categories p value	≤40 vs >40 p value	≤60 vs >60 p value
Gender Identity (Male/Female) (n = 169)	.430	.503	.199
Race/Ethnicity (5 Categories)	.538 ^A	.045 ^A	>.999 ^A
Race/Ethnicity (Non-Hispanic White/Other)	.044 ^A	.012 ^A	.219 ^A
Education Level (7 Categories)	.234 ^A	.179 ^A	.410 ^A
Age (Continuous)	.041 ^B	.033 ^C	.039 ^C
Years of Practice (Continuous)	.018 ^D	.012 ^E	.031 ^E
Anesthesia Model (4 Categories)	.571	.383	.491
Anesthesia Practice Setting (8 Categories)	.265 ^A	.277 ^A	.259 ^A
State Scope of Practice (4 Categories)	.237	.106	.347
Regional Anesthesia Frequency (6 Categories) (n = 142)	.473 ^A	.553 ^A	.303 ^A
Central Line Placements (6 Categories) (n = 139)	.892 ^A	.921 ^A	.721 ^A
PoCUS Frequency (6 categories) (n = 123)	.622 ^A	.757 ^A	.368 ^A
Anesthesia Planning & Decision-Making Frequency (6 Categories) (n = 169)	.841 ^A	.720	.508 ^A
Anesthesia Specialty Practice/Focus (3 Categories) (n = 27)	.360 ^A	.494 ^A	.134 ^A

Secondary Aim 2

**Multivariate analyses were NOT performed
Significant bivariate relationships were not found
between CIPS scores and the independent variables**

Discussion: Primary Aim

Sample Characteristics

- Age
- Gender
- Race/Ethnicity
- Education
- Practice Years
- Primary Practice Setting

Prevalence

Impostor Phenomenon Intensity

Discussion: Secondary Aim 1

Race & Ethnicity

Age

Practice Years

Implications

Practice

Wellness

Research

Education

Policy

Limitations

Research Design

Sample

- **Size, underpowered**
- **Homogeneity**
- **Non-representative of AANA membership**

Different independent variables

Research Summary & Conclusion

- **IP has resurged in the professional literature**
- IP is an evolving, multidimensional construct
- **Firm diagnostic criteria & treatment remain elusive**
 - The CIPS instrument is reliable and validated
- **IP is prevalent in CRNAs and may manifest in CRNAs differently**
- IP may impede role optimization, career advancement, & threaten wellbeing.
- **More research needed to elucidate IP dimensionality in CRNAs, possibly with different variables**

Closing Thoughts

You are real.

You are valued.

You deserve the accolades & praise.