

# Opioid Stewardship Education for Adult-Gerontology Acute Care Nurse Practitioners: A Needs Assessment

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## Introduction

- According to the CDC, 38 Americans fatally overdose on prescription opioids each day.
- Tennessee has the 3rd highest opioid prescribing rate compared to other states.
- Recommendations to help stem the tide of the opioid epidemic include improving pain management education provided to healthcare professionals.
- Many larger healthcare organizations have introduced opioid stewardship committees to provide an institutional response to the opioid epidemic and these committees spearhead the efforts to design educational offerings.

### Problem

- Limited evidence exists on amount of training NPs receive on pain management topics.

- Opioid stewardship committees need to understand current levels of training to design future educational interventions.

### Aim

Conduct needs assessment of opioid stewardship education provided to APPs at a US academic medical center and masters level acute care NP students at an accredited, US nursing school.

- Objective 1: Identify core competencies related to opioid stewardship for master's level curriculum in NP programs.
- Objective 2: Determine opioid stewardship education provided to APPs during academic training, onboarding modules, and continuing education.
- Objective 3: Outline how pharmacology curriculum for master's level NP students addresses opioid stewardship.
- Objective 4: Disseminate findings to academic medical center's opioid stewardship committee.

## Methods

### PDSA Cycle

- Plan: Designed interview questions for VUSN pharmacology professors and survey questions for APPs at VUMC.
- Do: Conducted interviews and distributed surveys.
- Study: Analyzed interview and survey findings.
- Act: Disseminated findings to VCOMS.

### Methods

- Review core competencies related to Masters level acute care nurse practitioner programs
- Interview masters level pharmacology professors at a school of nursing using a semi-structured format.
- Survey advanced practice providers at an academic medical center using an electronic survey tool designed by the DNP student.

## Implications for Practice

- The needs assessment is the first of its kind to examine the pain management education provided to acute care NPs during their academic training, employment onboarding, and continuing education courses. The needs assessment serves as the foundation for future work and investigation into this area.
- While the survey respondents reported high confidence in their perceived preparedness to manage patients who are prescribed opioids, this finding varies from current evidence. This discrepancy could be caused by differences among the survey group compared to the general APP population since the respondents included APPs who manage opioids routinely as part of their clinical practice.

## Results

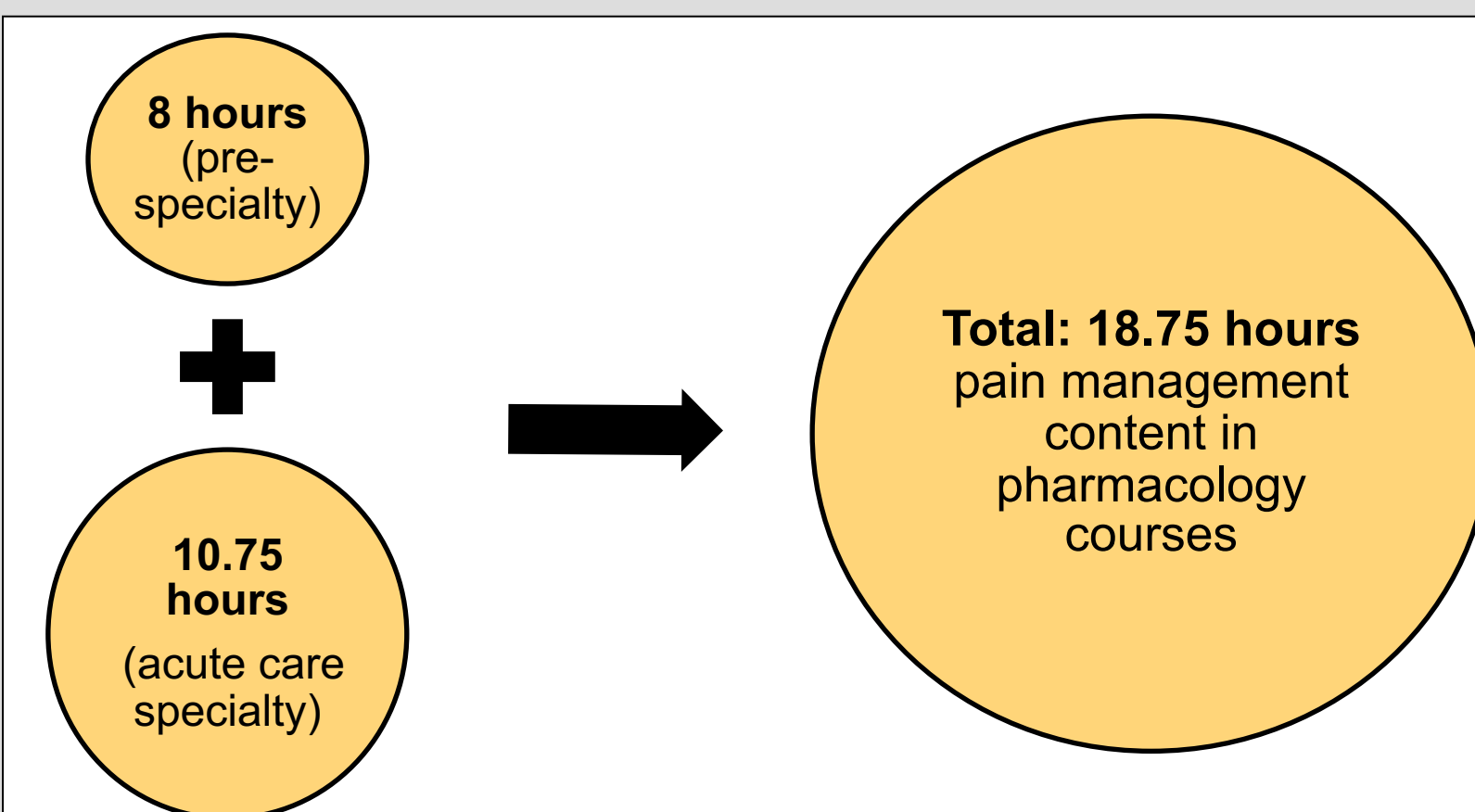


Figure 1 Pain management content hours

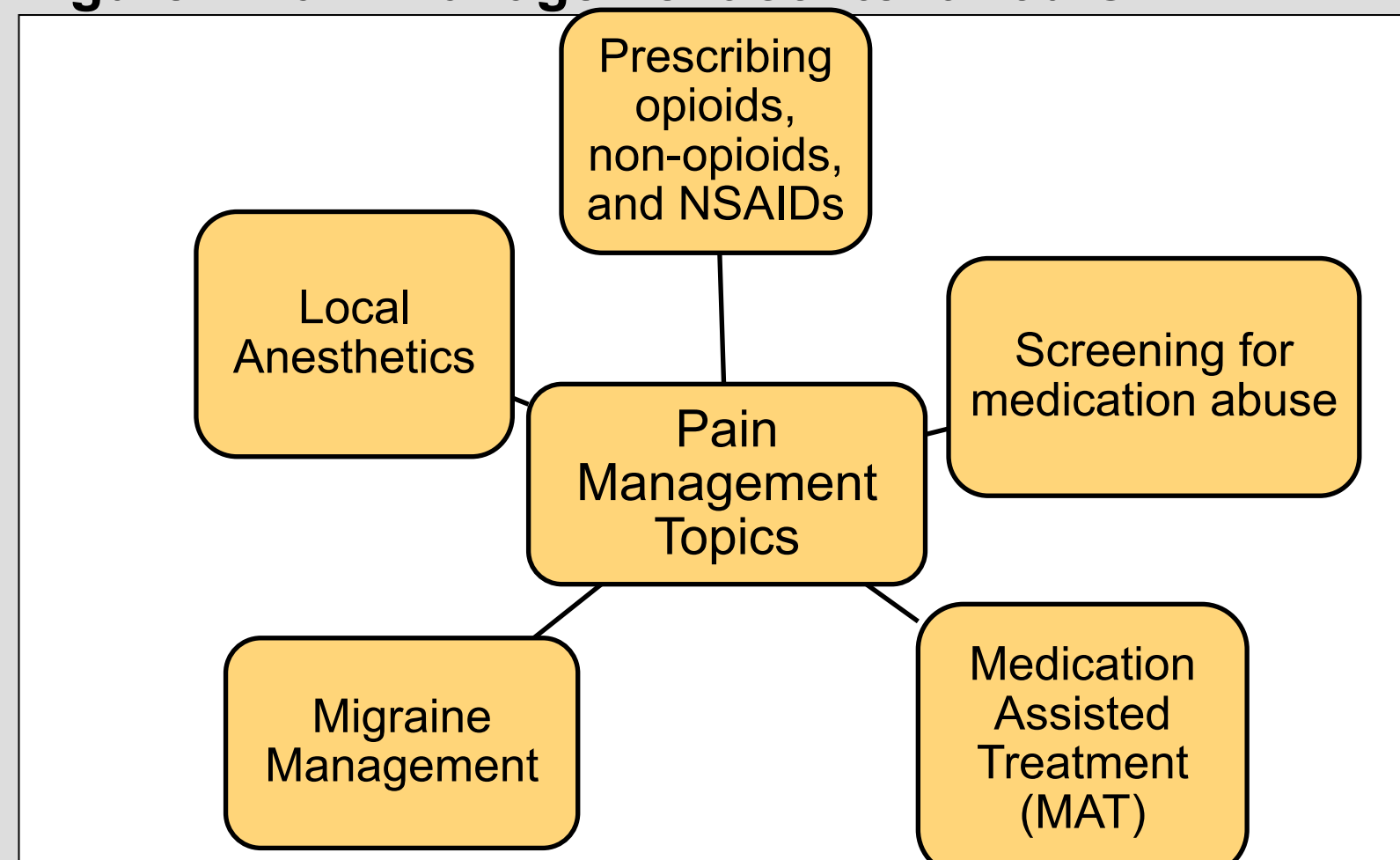


Figure 2 Pain topics in MSN pharm course

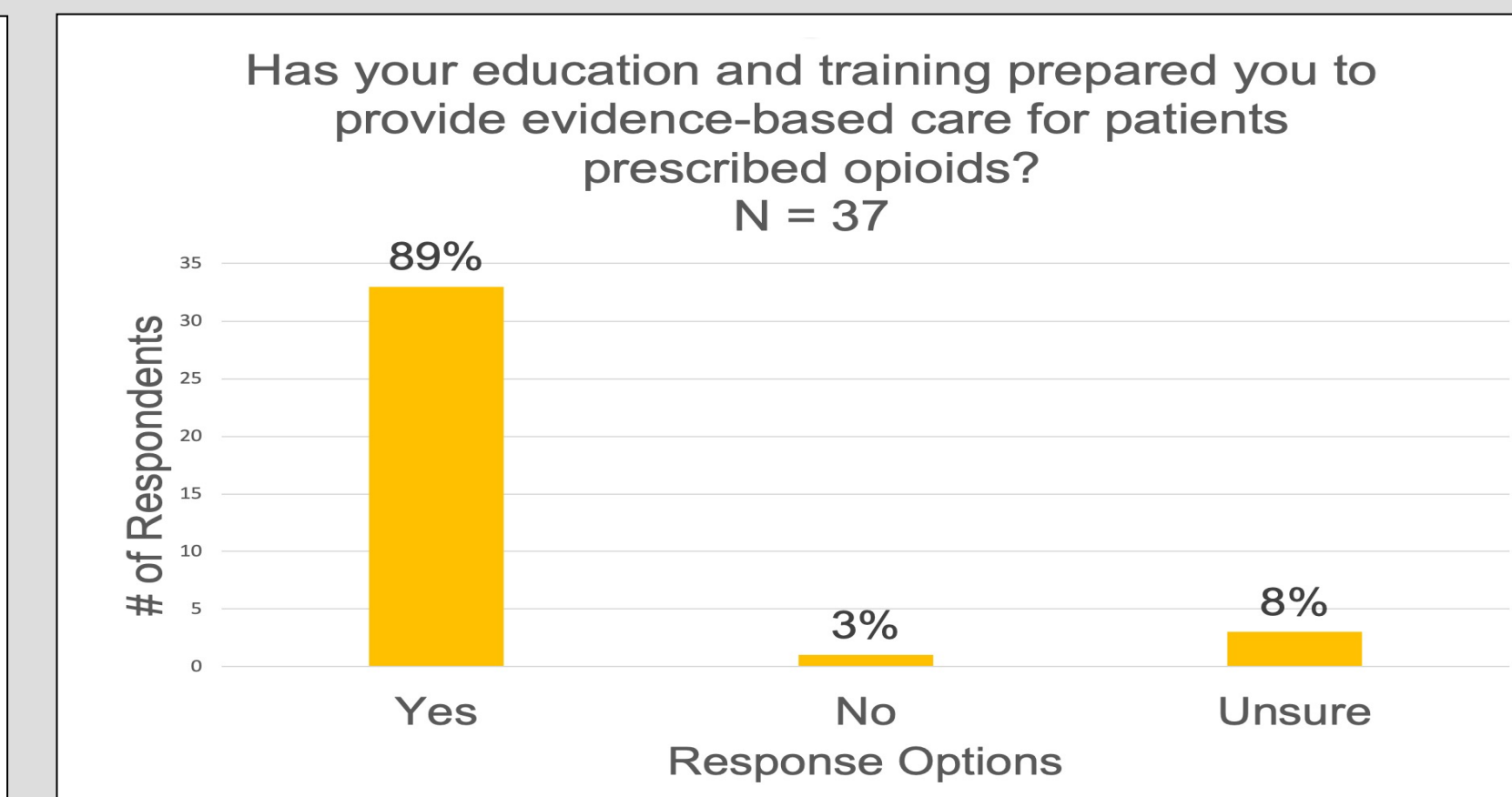


Figure 3 Perceived preparedness to prescribe opioids

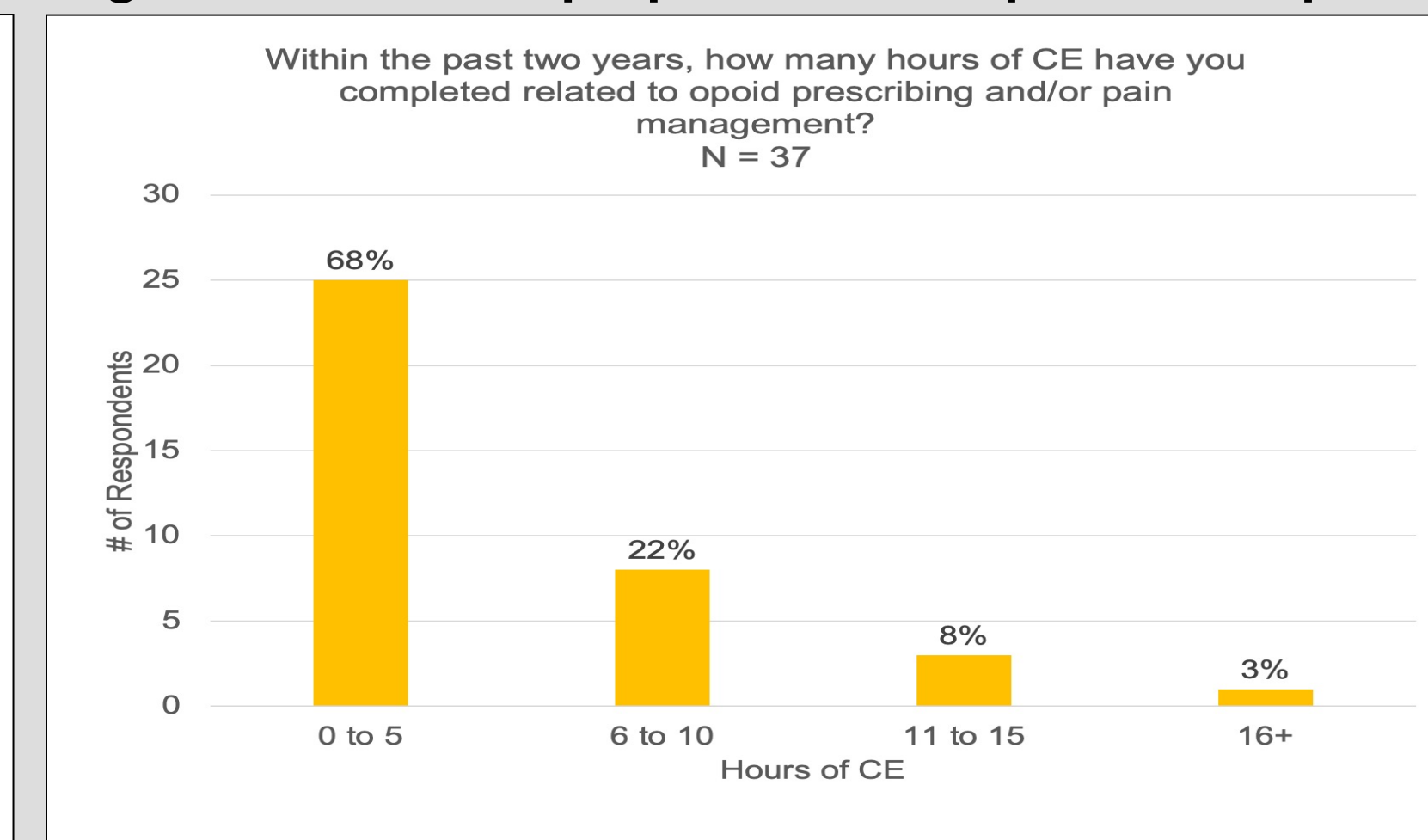


Figure 4 Continuing education hours

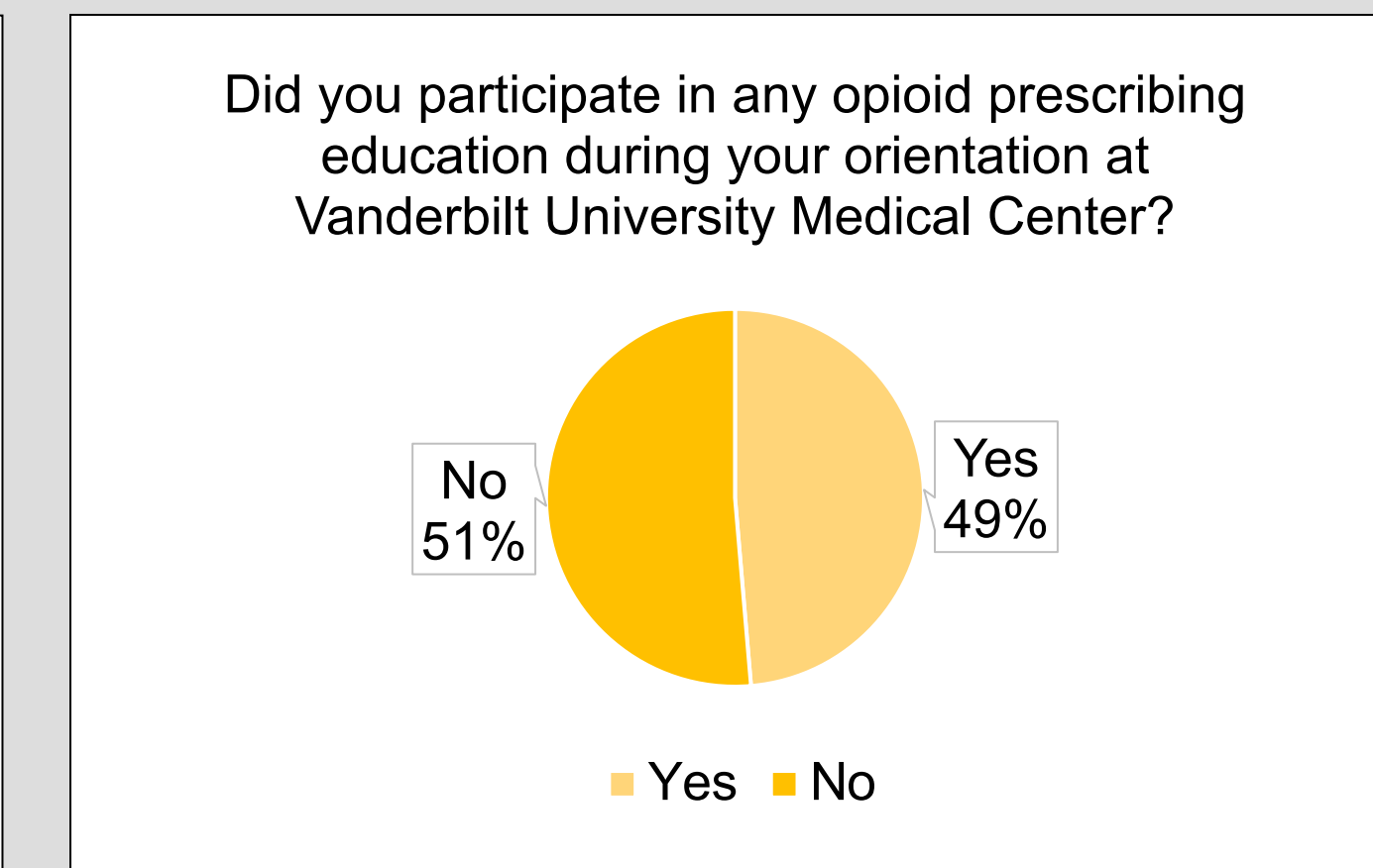


Figure 5 Opioid training during onboarding

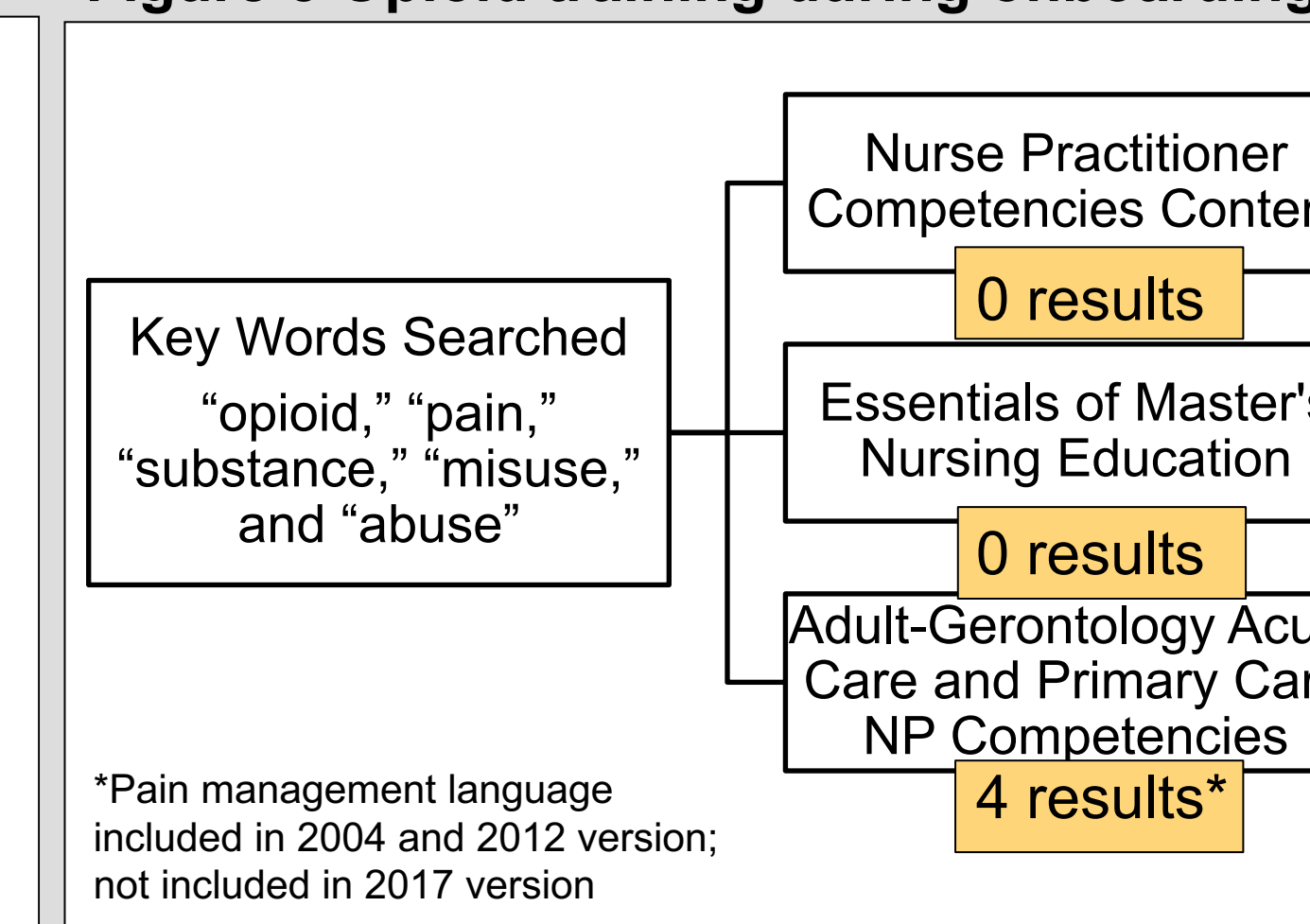
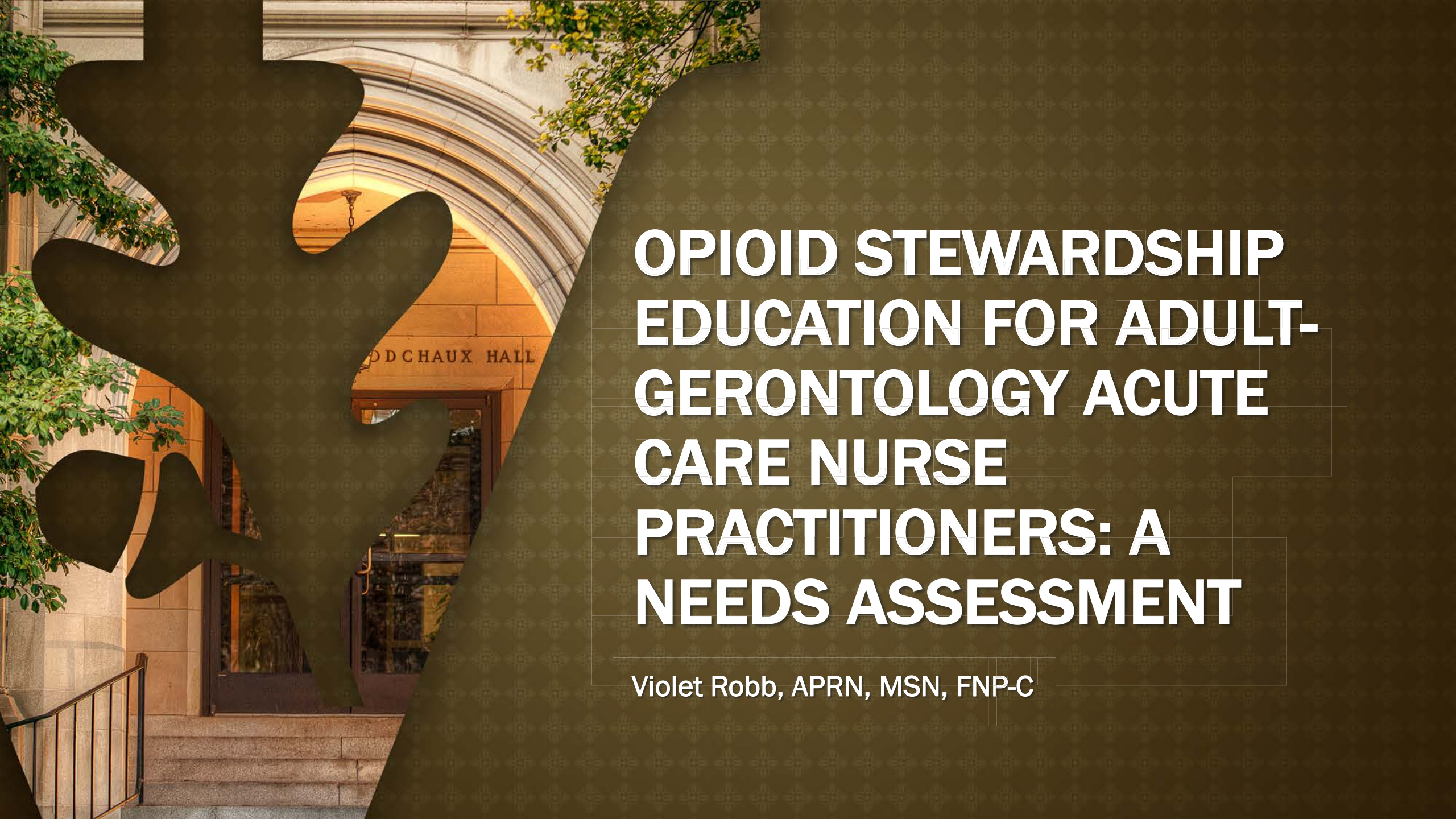


Figure 6 Key source documents searched



# OPIOID STEWARDSHIP EDUCATION FOR ADULT- GERONTOLOGY ACUTE CARE NURSE PRACTITIONERS: A NEEDS ASSESSMENT

Violet Robb, APRN, MSN, FNP-C

# Thank you

- ▶ Dr. Karen Hande
- ▶ Dr. Dawn Vanderhoef
- ▶ Ms. Tess Huggins
- ▶ Dr. Heather Jackson

# Introduction

**38 Americans**

fatally overdose on prescription opioids each day

Center for Disease Control and Prevention, 2019

**1.4 Tennesseans**

fatally overdose on prescription opioids each day

Center for Disease Control and Prevention, 2019

**3rd highest**

Tennessee's opioid prescribing rate compared to other states

National Institute on Drug Abuse, 2018



# Introduction

**\$24.4 Million**

Combined cost of opioid use disorder and fatal overdose in Tennessee

(National Institute on Drug Abuse, 2018)

**\$30,000**

Average cost associated with individuals with opioid use disorder

(Florence et al., 2016)

*Multitude of solutions; one of key recommendations is improved education of healthcare professionals*

# Problem Statement

- ▶ The Problem: Poor compliance with TN Together Act documentation requirements at Vanderbilt Medical Center
- ▶ Systems-level problem identified by Vanderbilt Committee on Opioid Monitoring and Stewardship through objective data collected on organizational outcomes
- ▶ Problem parameters: acute care nurse practitioners
- ▶ What education do acute care nurse practitioners receive on opioid stewardship?
- ▶ Research conducted into other professions, but not for nurse practitioners



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CENTER**

# Aim

- ▶ Conduct needs assessment of opioid stewardship education provided to APPs at a US academic medical center and masters level acute care NP students at an accredited, US nursing school.

# Purpose and Objectives

## Purpose:

Conduct a needs assessment of opioid stewardship education provided to acute care NPs in academic and employment settings.

Objective 1: Identify core competencies

Objective 2: Outline current pharmacology curriculum at VUSN

Objective 3: Assess academic training, onboarding and continuing education VUMC acute care NPs receive

Objective 4: Disseminate findings to aid future interventions

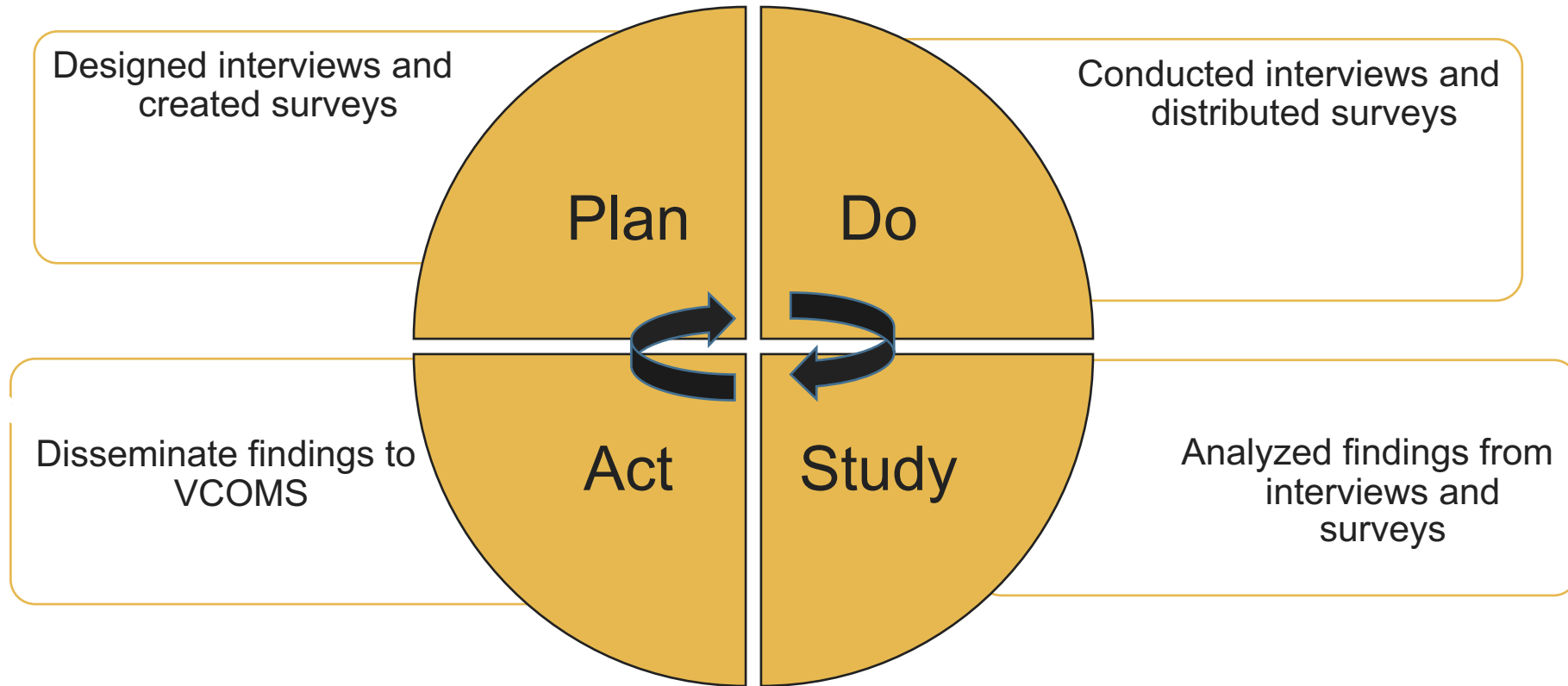


# METHODS



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# PDSA Cycle



# Survey

- ▶ 12-15 item survey
- ▶ 156 survey recipients
- ▶ **Response Rate: 23.7%**



**Advanced Practice Provider Survey** AAA

Thank you for taking the time to answer the following questions.

This survey is part of a Doctor of Nursing Practice quality improvement project to assess the education and training advanced practice providers at Vanderbilt University Medical Center receive about opioid stewardship and pain management topics. Your responses will provide valuable information for VUMC and may be used to guide future educational interventions.

Please select if you are an advanced practice registered nurse (APRN) or a physician assistant (PA).  Advanced Practice Registered Nurse (APRN)  Physician Assistant (PA) reset

Do you work in an inpatient or outpatient setting?  Inpatient  Outpatient  Both reset

What year did you obtain your Advanced Practice Provider graduate degree?  reset

How many years have you practiced as an Advanced Practice Provider?  reset

In your Advanced Practice Provider role, do you prescribe opioids?  Yes  No reset

Did you participate in any opioid prescribing education during your orientation at Vanderbilt University Medical Center?  Yes  No reset

Within the past two years, how many hours of continuing education have you completed related to opioid prescribing and/or pain management?  reset

What sources did you use to complete continuing education on these topics?  Professional organization (ex. American Association of Nurse Practitioners, American Academy of Physician Associates)  Employer (Vanderbilt University Medical Center/QuizTime)  Other source

Has your education and training prepared you to provide evidence-based care for patients prescribed opioids?  Yes  No  Unsure reset

Do you have an X waiver (authority to prescribe buprenorphine for opioid use disorder)?  Yes  No reset

Are you familiar with the Tennessee Together Act?  Yes  No reset

Is there anything you wish to share about opioid stewardship or pain management education offered to Advanced Practice Providers at Vanderbilt University Medical Center?  Expand

Powered by REDCap

# Interviews

- ▶ 3 individual, 60 minute interviews conducted over Zoom using semi-structured approach
  - 1 pharmacology professor at pre-specialty RN level
  - 2 pharmacology professors at MSN acute-care NP level



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## Interview Questions

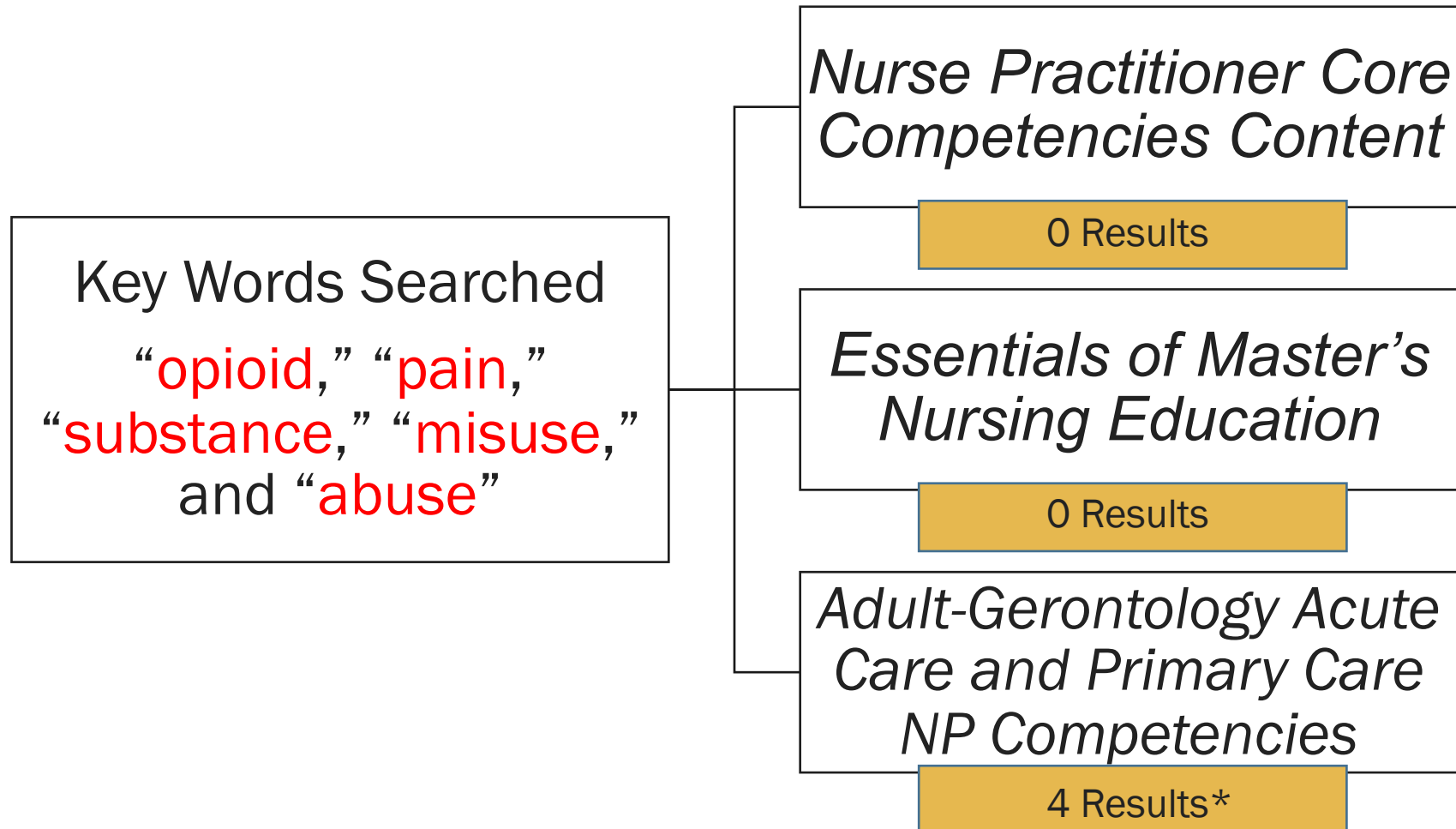
1. How many hours of pain related content do nurse practitioner students receive in the specialty year of the program?
2. What types of teaching methods are used (ex. Didactic, case-based learning, problem-based learning, simulation-based learning, team based learning, lab, etc.)
3. Do students receive dedicated pain module content?
4. How would a faculty member support a student in a clinical setting where opioids may be prescribed outside of the prescribing guidelines?
5. Do students learn about the [Tennessee Together Act](#) and/or the [Center for Disease Control and Prevention \(CDC\) Chronic Pain Management Guidelines](#) during class, clinical conference, or reading assignments?
6. Does the curriculum incorporate any of the recommendations from the [International Association for the Study of Pain \(IASP\) Interprofessional Pain Curriculum Outline](#)?
7. Are students taught about the use of drug monitoring programs in clinical practice?
8. What textbook is used for the course?
9. Can I receive a copy of the syllabus?
10. Do you attend any conferences related to pain management and opioid prescribing as part of your role as a pharmacology professor? Do you complete any continuing education related to pain management and opioid prescribing as part of your role as a pharmacology professor?

# RESULTS



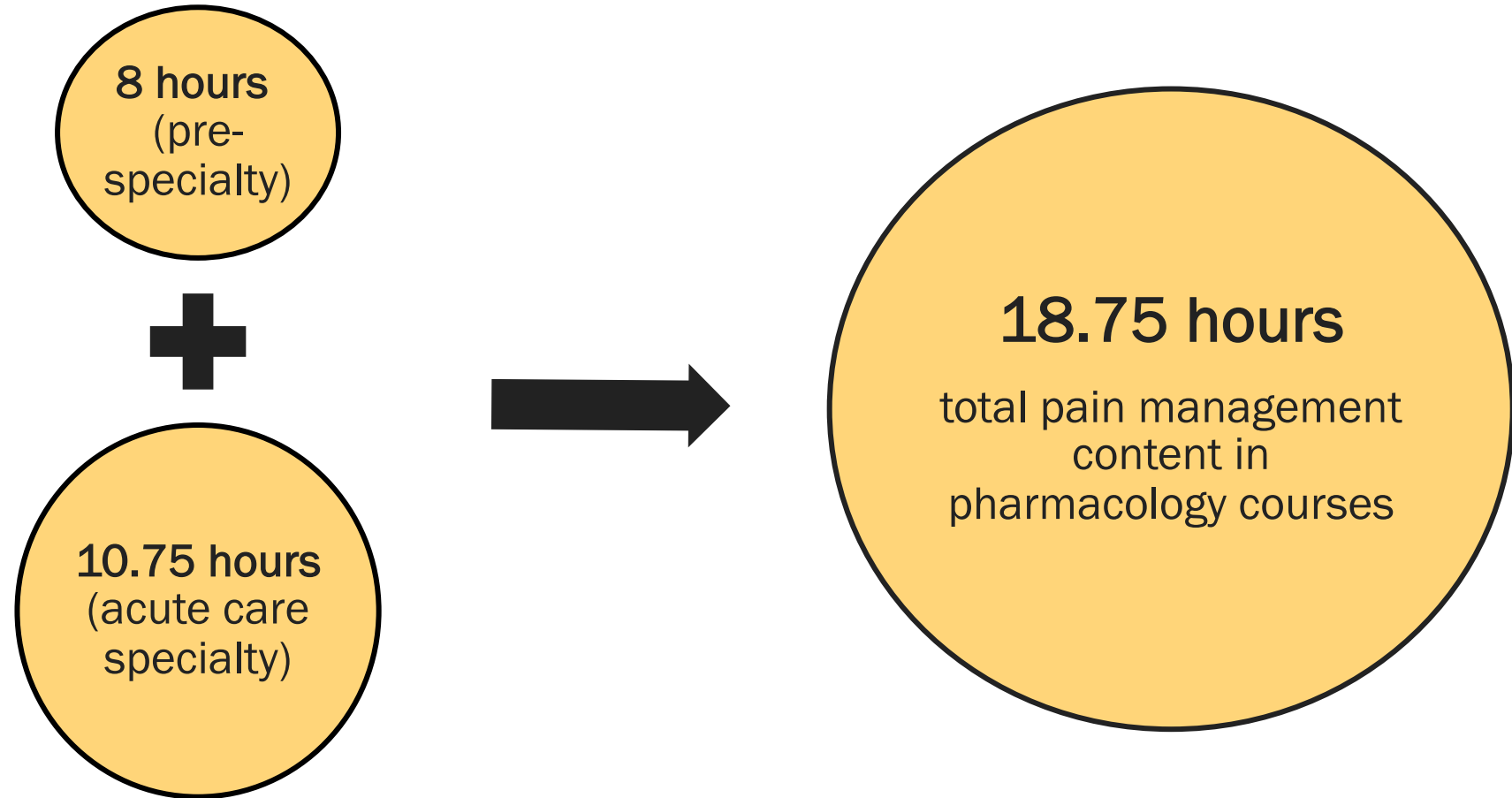
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# Key Source Documents

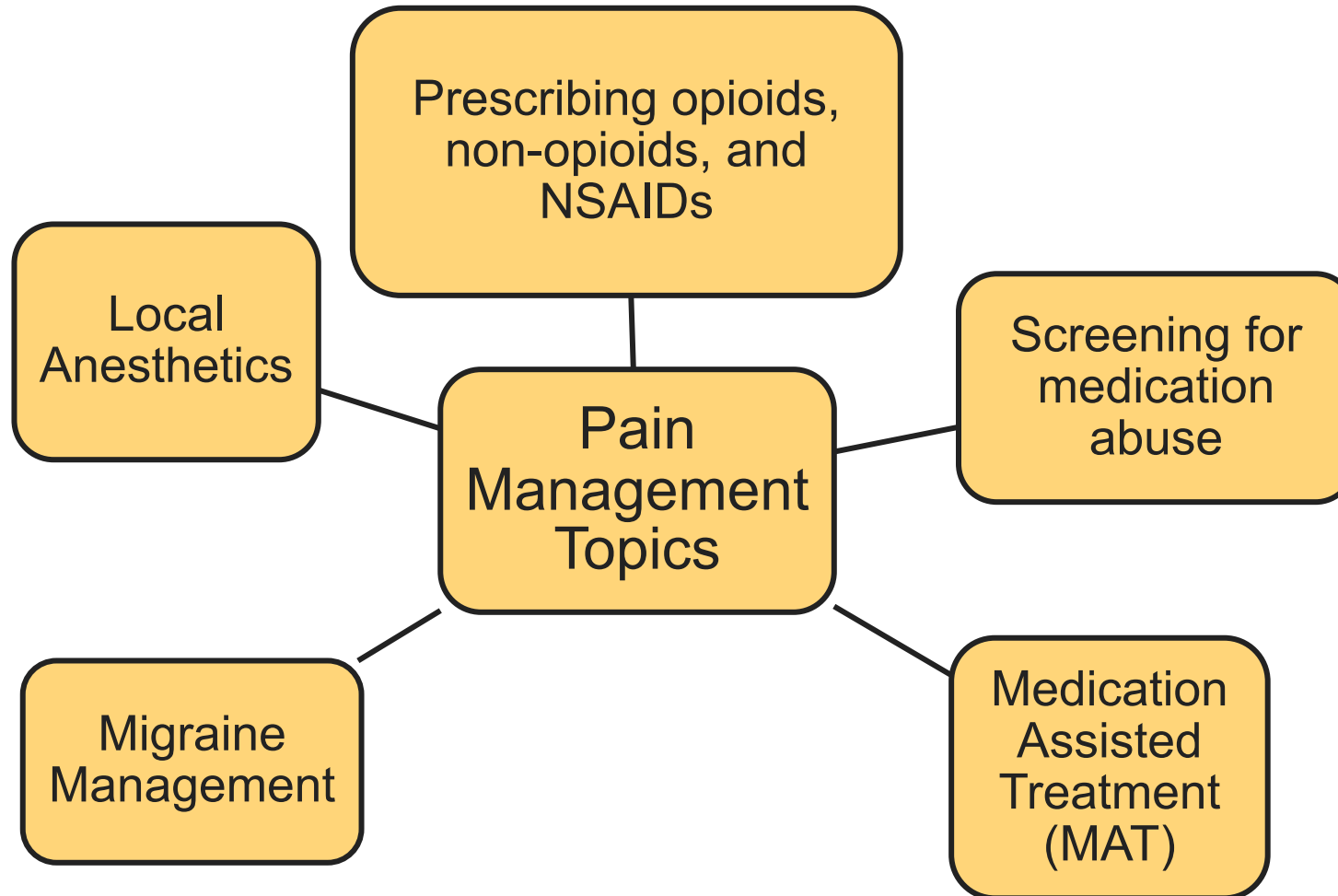


\*Pain management language included in 2004 and 2012 version; not included in 2017 version

# Pain Management Content Hours



# Pain Topics in MSN Pharm Courses







**Table 1**

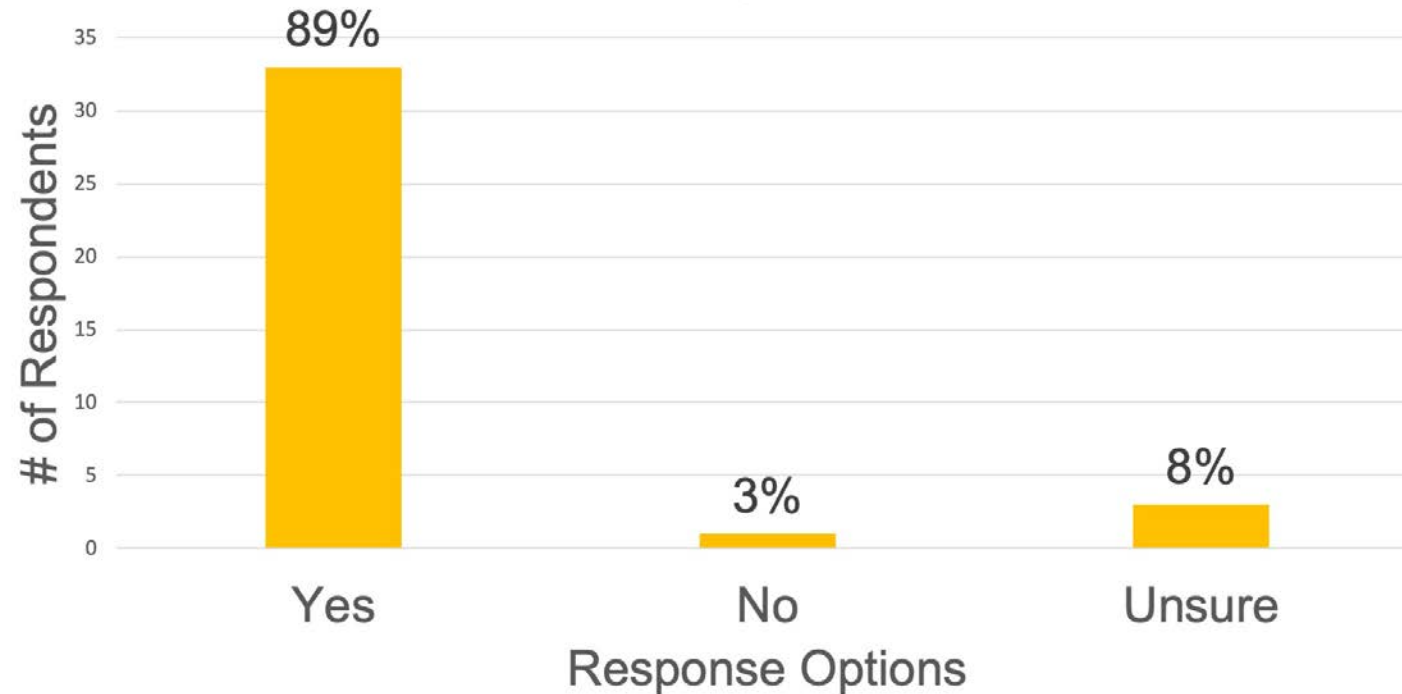
*Demographic Characteristics of Respondents*

Survey item	n	%
Advanced Practice Provider Type		
Advanced Practice Registered Nurse (APRN)	35	95
Physician Assistant	2	5
Advanced Practice Registered Nurse Role		
Certified Nurse Practitioner	34	92
Not Applicable	2	5
Certified Nurse Midwife	1	3
Certified Nurse Specialist	0	0
Certified Nurse Anesthetist	0	0
Nurse Practitioner Population Focus		
Adult-Gerontology Acute Care Nurse Practitioner (AGACNP)	13	35
Acute Care Nurse Practitioner (ACNP)	12	32
Family Nurse Practitioner (FNP)	5	14
Not Applicable	3	8
Adult-Gerontology Primary Care Nurse Practitioner (AGPCNP)	1	3
Emergency Nurse Practitioner (ENP)	1	3
Psychiatric Mental Health Nurse Practitioner (PMHNP)	1	3
Women's Health/Gender-Related Nurse Practitioner (WHGRNP)	1	3
Practice Setting		
Inpatient	16	43
Outpatient	16	43
Both Inpatient and Outpatient	5	14
	Mdn	IQR
Years Practicing as Advanced Practice Provider	10	4, 14
Years Practicing as Registered Nurse	4.5	0.75, 5.2

*Note.* N = 37.

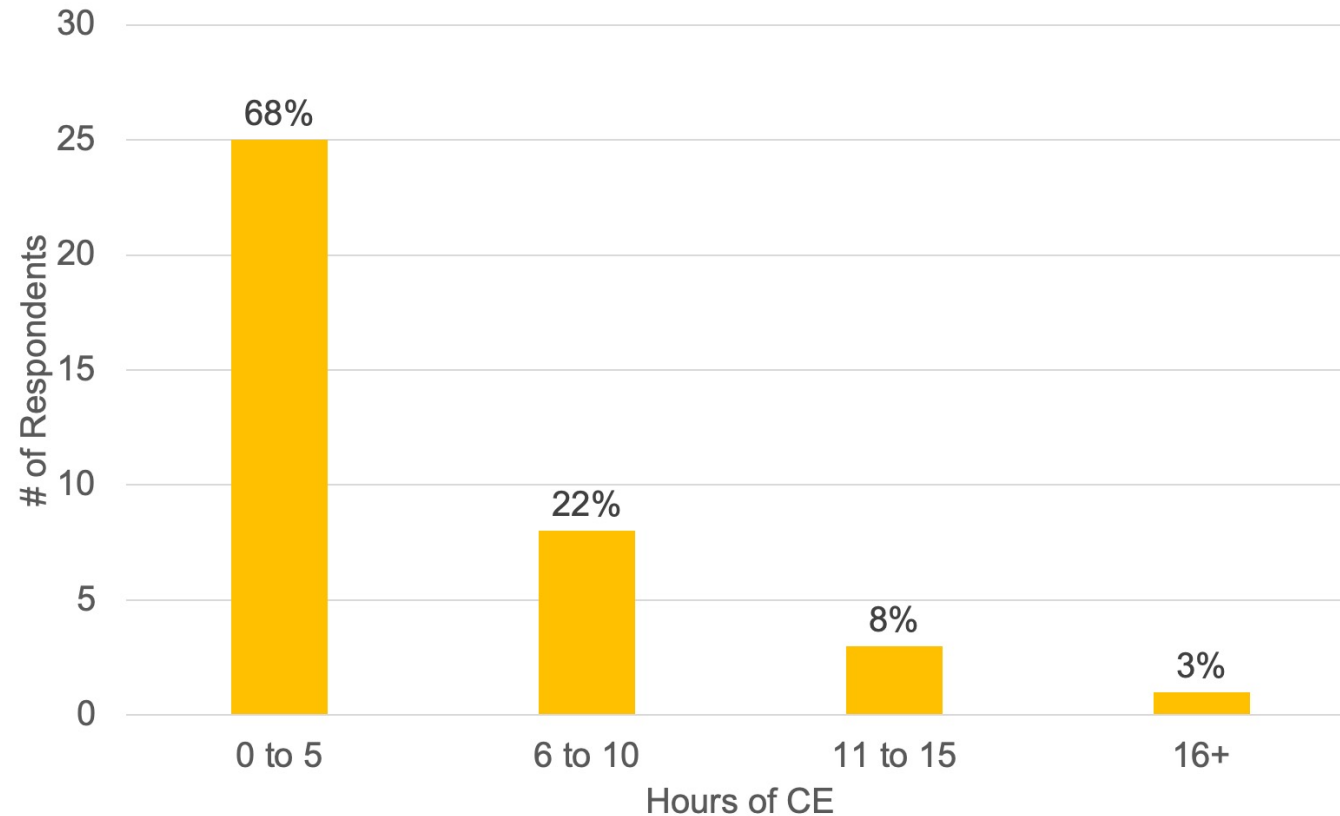
# Perceived Preparedness to Prescribe Opioids

Has your education and training prepared you to provide evidence-based care for patients prescribed opioids?  
N = 37



# Continuing Education Hours

Within the past two years, how many hours of CE have you completed related to opioid prescribing and/or pain management?  
N = 37



# IMPLICATIONS FOR PRACTICE



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# Implications for Practice

- ▶ Strengths: First project of its kind to examine pain management education provided to acute care NPs during their academic training, employment onboarding, and continuing education courses
- ▶ Limitations: survey distribution and selection bias.
- ▶ Future innovations: Serves as foundation for future work and investigation into this area.

# CONCLUSION



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# Conclusions

- ▶ Key source documents provide limited guidance on opioid stewardship education requirements
- ▶ During pre-specialty and acute care MSN training, acute care NP students at VUSN receive ~20 hours of pain management education pharmacology course series
- ▶ Overwhelming majority of VUMC survey respondents reported feeling prepared to care for patients prescribed opioids
- ▶ Future DNP students should build upon this work to guide future educational interventions at VUMC

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# Pharmacology Professors Interview

1. How many hours of pain related content do nurse practitioner students receive in the specialty year of the program?
2. What types of teaching methods are used (ex. Didactic, case-based learning, problem-based learning, simulation-based learning, team based learning, lab, etc.)
3. Do students receive dedicated pain module content?
4. How would a faculty member support a student in a clinical setting where opioids may be prescribed outside of the prescribing guidelines?
5. Are students taught about the Tennessee Together Act and/or the Center for Disease Control and Prevention (CDC) Chronic Pain Management Guidelines during class, clinical conference, and/or reading assignments?
6. Does the curriculum incorporate any of the recommendations from the International Association for the Study of Pain (IASP) Interprofessional Pain Curriculum Outline?
7. Are students taught about the use of drug monitoring programs in clinical practice?
8. What textbook is used for the course?
9. Can I receive a copy of the syllabus?
10. Do you attend any conferences related to pain management and opioid prescribing as part of your role as a pharmacology professor? Do you complete any continuing education related to pain management and opioid prescribing as part of your role as a pharmacology professor?



# VUMC Advanced Practice Provider Survey

## Demographics Questions

1. What is your Advanced Practice Provider type?
2. What year did you graduate from your Advanced Practice Provider graduate degree program?
3. How many years have you practiced as an Advanced Practice Provider?
4. If you are a nurse practitioner, how many years did you practice as a registered nurse prior to practice as a nurse practitioner?

## Opioid Content Questions

5. In your Advanced Practice Provider role, do you prescribe opioids?
6. Did you participate in any opioid prescribing education during your orientation at Vanderbilt University Medical Center?
7. Within the past two years, how many hours of continuing education have you completed related to opioid prescribing and/or pain management?
8. What sources did you use to complete continuing education on these topics?
9. Has your education and training prepared you to provide evidence-based care for patients prescribed opioids?
10. Do you have an X waiver (authority to prescribe buprenorphine for opioid use disorder)?
11. If you have an X waiver, how many patients have you treated with your waiver?
12. Are you familiar with the Tennessee Together Act?
13. Is there anything you wish to share about opioid stewardship or pain management education offered to Advanced Practice Providers at Vanderbilt University Medical Center?