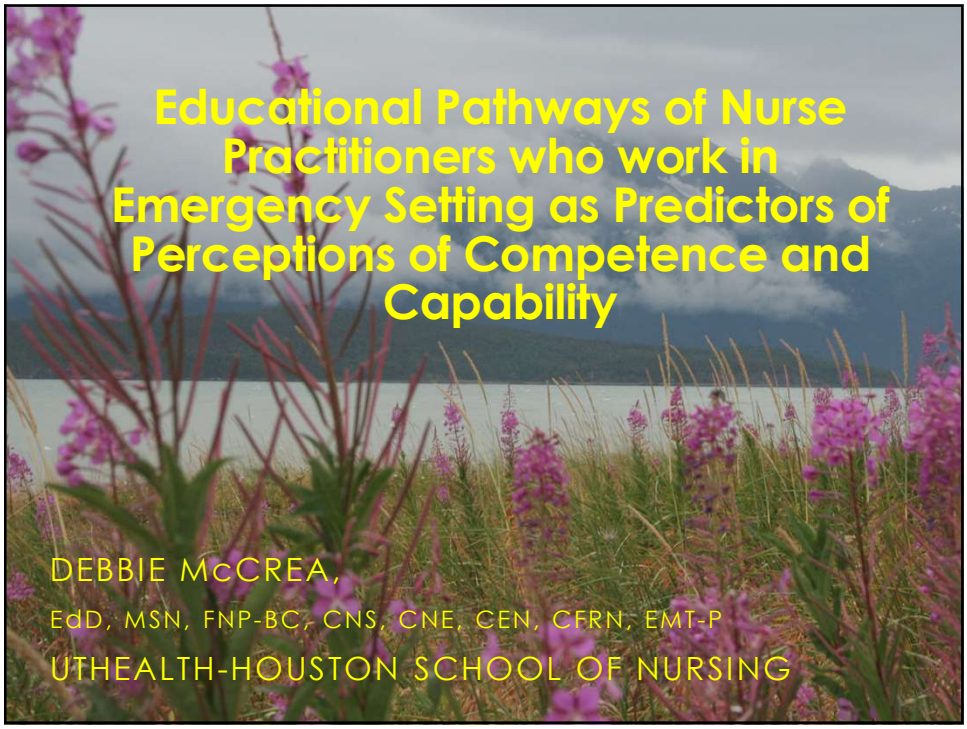


Will discuss

- Background
- Methods
- Instruments
- Research Questions
- Results
- Conclusions
  - Practice Implications
  - Education Implications

Statement of the Problem:

ED Overcrowding

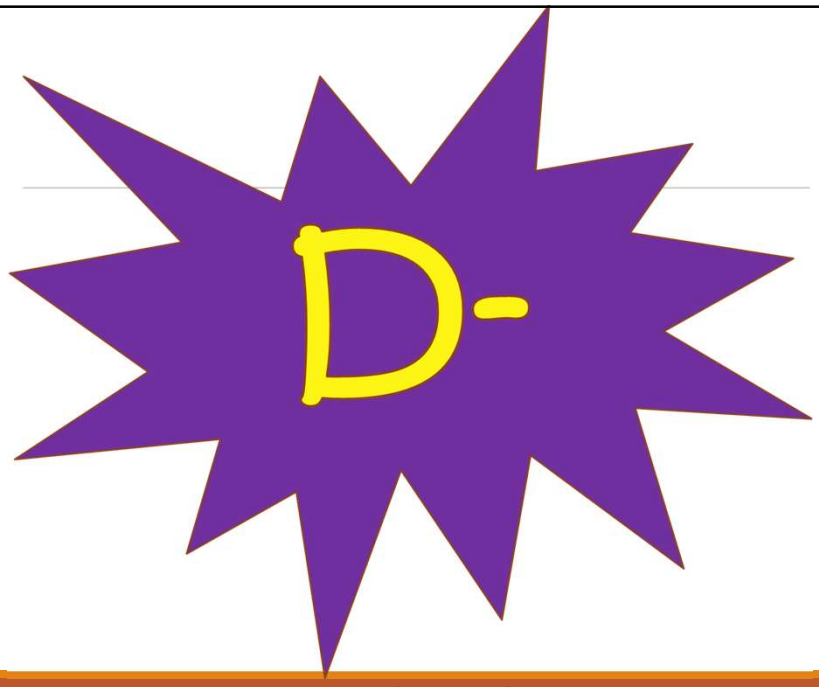
Visits to the Emergency Dept. Reach New High per CDC Data

- 145K in 2016
- 150.6K in 2019
- 131K in 2020
- 139.7K in 2021

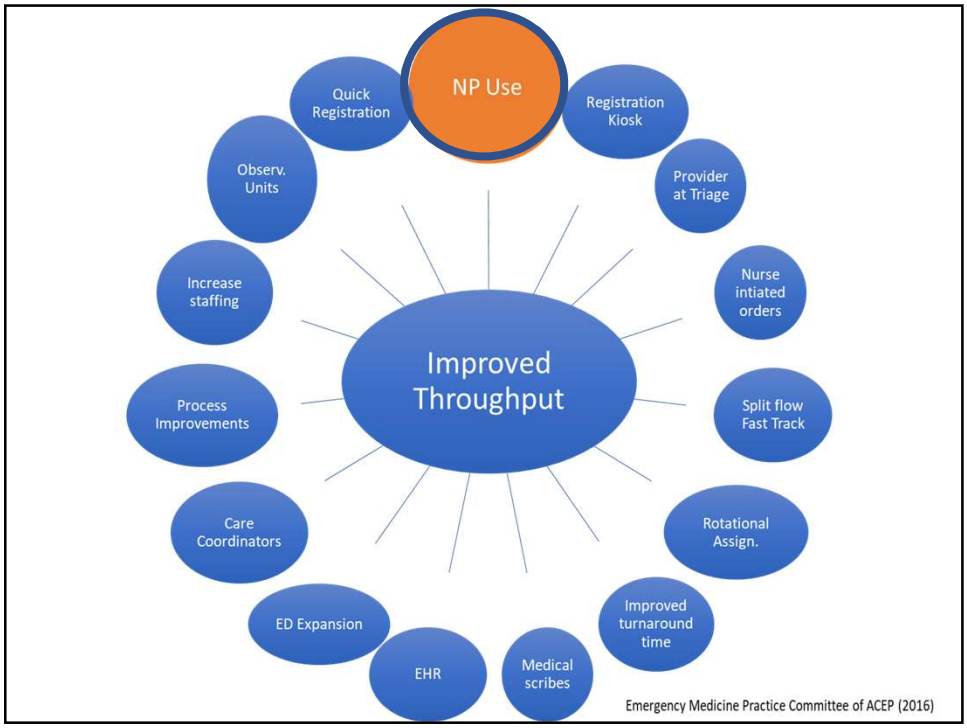
National Center for Health Statistics. Emergency Department Visits in the United States, 2016-2021. Generated interactively: October 18, 2023 from https://www.cdc.gov/nchs/dhcs/ed-visits/index.htm

Increased ED overcrowding	Shortage of in-hospital beds	Shortage of emergency trained physicians
Hospital closures across the nation	Decreased reimbursement rates	Uninsured
More with insurance (ACA) but no PCP	Changing acuity	Ageing population
	Complex comorbid patients	

(American College of Emergency Physicians Emergency Medicine Practice Committee, 2016; Augustine, 2012; Emergency Department Benchmarking Alliance, 2013; D Evans, Hoyt, Wilbeck, Compo, & Ramirez, 2014; D. Evans & Wilbeck, 2015; Grato, Hasegawa, Bandi, Sullivan, & Cremerius, 2012; Rui & Kang, 2012).

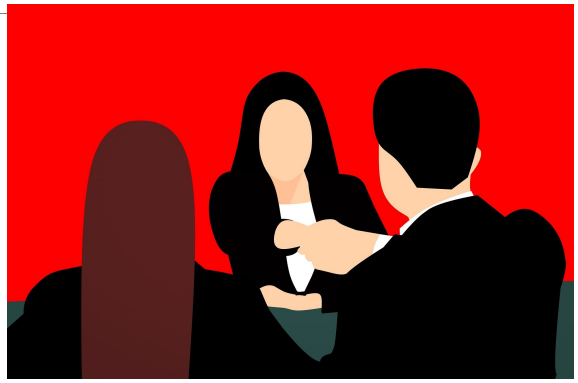


(American College of Surgeons, 2014; Corker & Kellepourey, 2008; Keough, Tell, Andreoni, & Tanabe, 2016)



Which type of NP DO YOU HIRE

NO National mandates on who to hire



Hoyt and Proehl (2010); Keough, Stevenson et al. (2011)

Social Media Post

"I agree that not many programs prepare you for the world of EM. What do you suggest if there are no residencies available without moving across country? How do you suggest we prepare to work in EM? The reality is they are hiring us and I agree I do not feel prepared at all. I'm genuinely asking because I feel so ill prepared and I am dual certified"

Educational value of study

- Do NOT know if there is difference in NP who works in the Emergency Setting
- Because there are no studies

Purpose of the Study

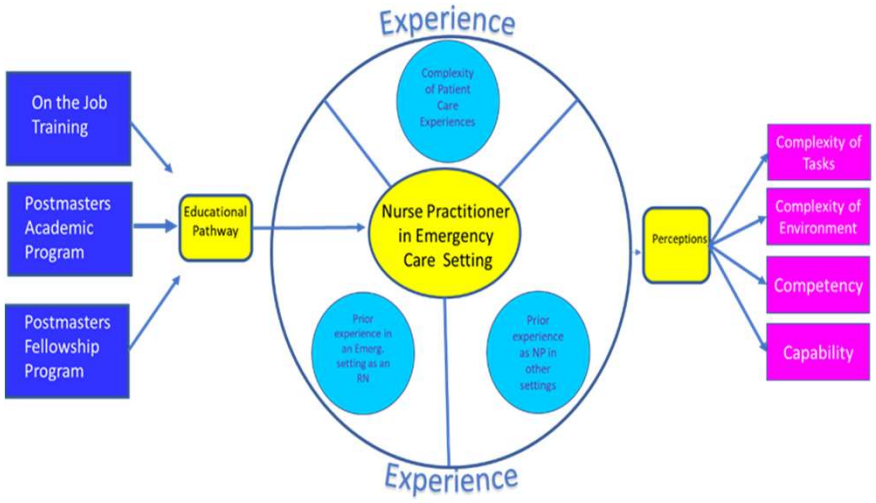
EXAMINE EDUCATIONAL PATHWAYS THAT ALLOW FNPS TO WORK IN AN EMERGENCY CARE SETTING

3 Educ. Pathways for FNPs that Enter Emergency Setting

- On-the-Job Training
- Postmasters Academic University Based Emergency/Trauma NP program
- Postmaster Fellowship Emergency/Trauma NP program

Several "Experience" Antecedents were evaluated

Prior experience working in an emergency setting as a registered nurse (RN) → Prior experience working as an NP role in any other setting. → Complexity of patient care experiences seen by NP who works in emergency setting

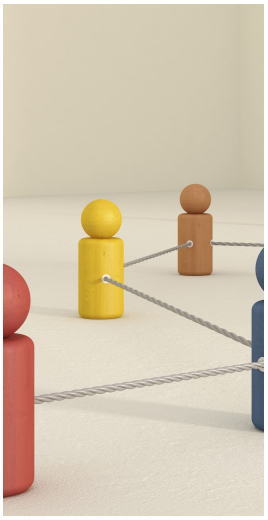


Conceptual Framework

Definitions

Competence

- Unique aspects of area of practice
- Provide model for entry into practice
- Ability to make satisfactory/effective decisions or perform skills in specific setting



Capability

Extent to which individuals can adapt to change, generate new knowledge and continue to improve performance

Ability to perform complex tasks in real situations or stressful circumstances or turbulent environment

- Fraser, S. W., & Greenhalgh, T. (2001)
- Evans, P. & Suzuki, (2008)
- Hase, S. (2000)

Competency measures previous performance

Capability focuses on unknown future, on change and unfamiliar circumstances

Methodology

Nonexperimental Descriptive Comparison Study= 215 participants

Convenience Sample of FNP who

- FNP (OJT)- 153
- FNP with EM academic education-44
- FNP with EM fellowship-18

Qualtrics Electronic

Instruments

- 1. Perceived Competency Instrument
  - Emergency Nurses Association Competencies 2008
    - intubation, local anesthesia, suture, LP, etc.

Emergency Nurses Association. (2008). Competencies for nurse practitioners in emergency care. In *Des Plaines, IL: Author.*

Competencies for Nurse Practitioners
in Emergency Care

I. Management of Patient Health/Illness Status

1. Triages patients' health needs/problems.
2. Completes EMTALA-specified medical screening examination.
3. Responds to the rapidly changing physiological status of emergency care patients.
4. Uses current evidence-based knowledge and skills in emergency care for the assessment, treatment, and disposition of acute and chronically ill and injured (e.g., physiologic, psychological, socio-economic, cultural) emergency patients.
5. Specifically assesses and initiates appropriate interventions for violence, neglect, and abuse (e.g., physical, psychological, sexual, substance).
6. Specifically assesses and initiates appropriate interventions and disposition for suicide risk.
7. Assesses patient and family for levels of comfort (e.g., pain, palliative care, end of life, bad news) and initiates appropriate interventions.
8. Recognizes, collects, and preserves evidence as indicated (e.g., forensic evidence).
9. Orders and interprets diagnostic tests.
10. Orders pharmacologic and non-pharmacologic therapies.
11. Orders and interprets electrocardiograms.
12. Orders and interprets radiographs.
13. Assesses response to therapeutic interventions.
14. Documents assessment, treatment, and disposition.

Emergency Nurses Association. (2008). Competencies for nurse practitioners in emergency care. In *Des Plaines, IL: Author.*

III. Airway, Breathing, Circulation, and Disability Procedures

20. Assesses and manages a patient in cardiopulmonary arrest (e.g., neonatal resuscitation, leads code team, rapid response team).
21. Assesses and manages airway (e.g., endotracheal intubation, ventilated patients).
22. Assesses and obtains advanced circulatory access (e.g., intraosseous).
23. Assesses and manages patients with disability (e.g., neurologic).
24. Assesses and manages procedural sedation patients.

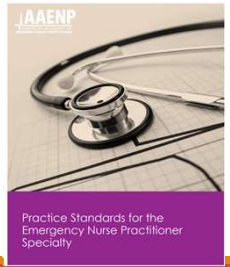
IV. Skin and Wound Care Procedures

25. Performs ultraviolet examination of skin and secretions (e.g., Woods Lamp).
26. Treats skin lesions (e.g., foot callus, skin tag, plantar lesion, decubitus care).
27. Injects local anesthetics.
28. Performs nail trephination.
29. Removes toe nail(s) (e.g., partial or complete removal for ingrown toe nail).
30. Performs a nail bed closure.
31. Performs closures (such as a single layer, multiple, staple, adhesive).
32. Revises a wound for closure.
33. Debrides minor burns (e.g., nonadhering blister).
34. Incises, drains, irrigates, and packs wounds.

Emergency Nurses Association. (2008). Competencies for nurse practitioners in emergency care. In *Des Plaines, IL: Author.*

Instruments

- 2. Perceived Capability Instrument
  - American Academy of Emergency Nurse Practitioners Practice Standards



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PRACTICE STANDARDS FOR THE ENP

Medical Screening

1. Classify patient acuity level
2. Stabilize critically ill patient
3. Perform a medical screening exam
4. Apply crisis management knowledge
5. Apply disaster and mass casualty management knowledge

Medical Decision Making/Differential Diagnosis

6. Prioritize the list of differential diagnoses, considering the potential diagnoses with the greatest potential for morbidity or mortality
7. Evaluate patient safety/harm reduction
8. Implement medical decision making for management plan development
9. Interpret diagnostic studies (EKG, radiology, body fluid)
10. Utilize evidence-based practice

Patient Management

11. Order and interpret diagnostic studies based on the pre-test probability of disease and the likelihood of test results altering management
12. Perform diagnostic and therapeutic procedures/skills as indicated
13. Select and prescribe appropriate pharmaceutical agents using current evidence-based practice
14. Collaborate and consult with other healthcare providers to optimize patient management
15. Evaluate effectiveness of therapies and treatments provided during observation
16. Reassess to identify potential complications or worsening of condition
17. Consider additional diagnoses and therapies for a patient who is under observation and change treatment plan accordingly
18. Simultaneously manage multiple patients using situational awareness and task switching
19. Initiate/maintain emergency stabilization

Patient Management (con't)

22. Perform observation and reassessment
23. Administer pain management according to national standards
24. Organize and administer sedation (as per facility guidelines)
25. Facilitate team-based practice/ management

Patient Disposition

26. Determine appropriate and timely patient disposition including admission, discharge (including follow-up plan), observation, or transfer as appropriate
27. Initiate/facilitate consultation and collaboration
28. Integrate patient and family education and counseling
29. Formulate appropriate disposition

Professional, Legal, and Ethical Practices

30. Record essential elements of the patient care encounter to facilitate correct coding and billing
31. Integrate cultural competence into patient care
32. Identify needs of vulnerable populations and intervene appropriately
33. Manage patient presentation demonstrating knowledge of EMTALA regulations
34. Adhere to professional ethical standards in emergency care
35. Assess staff/personal safety
36. Support intra- and inter- disciplinary communication
37. Assess for maltreatment/abuse/ neglect
38. Incorporate utilization of Forensic specialists when appropriate
39. Consider legal, professional, and ethical issues in practice
40. Exhibit cultural competence in practice
41. Acknowledge and intervene for vulnerable populations
42. Utilize performance improvement to provide

Campo, T. M., Comer, A., Evans, D. D., Kincaid, K., Norton, L., Ramirez, E. G., Roberts, E., Smith, A., Stackhouse, K., & Wilbeck, J. (2018). Practice standards for the emergency nurse practitioner specialty. Advanced Emergency Nursing Journal, 40(4), 240-245.

Perceptions of Complexity

- 1month & 12 month
  - Task
    - any psychomotor skill
  - Environment
    - Perceptions of role, people, situations on the job
  - 0-totally unfamiliar
  - 10=totally familiar

Discussion of Finding

RQ1a

Educ. Pathway & Perceived *Competence*

Finding 1: OJT reported higher cardiovascular competence compared to fellowship program, p = .028

Finding 2: OJT reported higher Musculosk. competence compared to fellowship, p = .024

Finding 3: OJT reported statistically lower nervous system – lumbar puncture competence compared to fellowship, p = .047

RQ1b

Educ Pathway
&
Perceived
Capability

No stat. difference of self-reported capability among the 3 educ. pathways

RQ2a

Prior RN Experience
&
Perceived
Competence

RN with < 1 yr as ED RN reported ***lower resusc. competence*** compared to RN with 6-10 years of experience

$p = .041$

RQ2b

Prior RN Experience & Perceived *Capability*

NO differences in any groups of RN years of experience and their self-perception of Capability

- Clinicians, Educators, Employers
  - Assumptions made
    - no correlation between years of prior RN experience and NP skills after graduation

Findings for RN experience

Rich (2005) and Cusson and Strange (2008)

- Longer someone is in a profession, more competent and capable they will become over time
  - "Expert Nurse to now Novice APN"
    - Start over to prove themselves again
      - Transition can take 6 mos to 2 years

Findings for RN experience

RQ2c

NP Experience & Perceived *Competence*

Airway, Resusitation, Anesthesia, GI, Cardiovascular and Thoracic, Cutaneous, HEENT, Systemic Infectious, MS, Nervous, OB/Gyn, PMH, Renal/GU, Tox

NPs with <1 yr –significantly lower perception of competence compared 6-10 years or 10+ ($p < .05$)

NPs with 1-5 years reported significantly lower perceptions of competence ($p < .001$) compared to those with > 10 years

RQ2d

NP Experience & Perceived *Capability*

Medical screening, Medical decision, Patient disposition, Professional Legal

<1 years of experience reported lower perceptions of capability compared to 1 – 5 yrs, 6-10 yrs and >10 years ($p < .05$).

1-5 years also reported significantly lower capability compared to 6-10 yrs and >10 yrs

($p < .05$).

R3 Complexity Findings

Decrease perception of complexity of tasks from 1st to 12th month

$p < .001$

Decrease perception of complexity of environment from 1st to 12th month

$p < .001$

What do findings mean?

RQ1a/b:

Educational pathways showed no difference in perceptions of

competency

or

capability

except for a few subscales

RQ2a

and

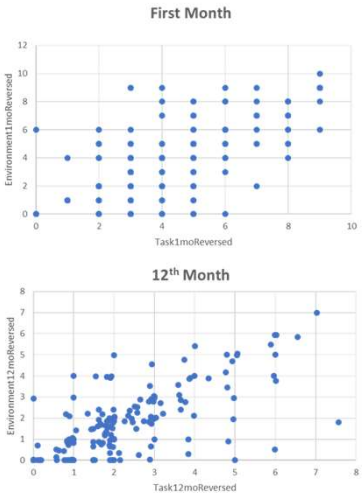
RQ2b

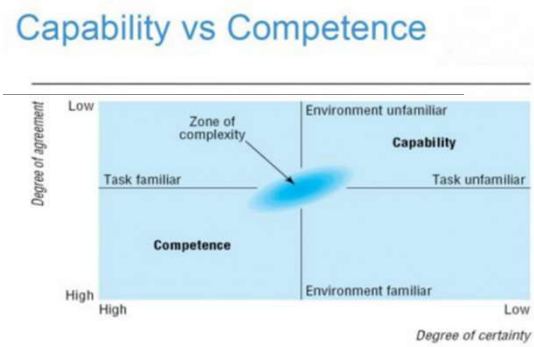
PRIOR RN experience in emergency setting

No differences found among groups of any of RN years of experience and self-perception of competence

NO Difference in Prior RN experience and Capability

Findings for R3





Competence and capability in complex adaptive systems (based on Stacey[14] and Stephenson[15])

Practice Implications

Expert, unique and highly qualified person who has elected to work in chaotic/turbulent environment ***must be acknowledged and commended.***

Misunderstanding of

- role, scope, standards, certification options by colleagues, employers and regulatory entities

- STRONG STRONG ONBOARDING Programs

(Schumann, L., & Tyler, D. O. , 2018

Implications for Education

- MUST prepare curriculum to teach more than competence
- Capability-based education curriculum is an absolute must

"Unique educational needs of ENP"

- looked at FNPs, ANPs, and ACNP to ascertain their top educational needs
- All NPs require very specific standardized ed/skills to meet demand

Found FNPs, ANPs and ACNP show a gap

- 1) managing critically ill
- 2) lab interpretations
- 3) pharm
- 4) mentoring
- 5) skills not routinely taught in FNP or adult/gerontology
  - digital blocks, joint aspiration, lumbar puncture and slit lamp exams, central lines, needle thoracentesis and other more advanced skills.

- This and several other studies found need for formalized ed for NPs practicing in EM setting which is supported by other org such as the ACEP

Keough, V. A., Tell, D., Andreoni, C., & Tanabe, P. (2016). Unique educational needs of emergency nurse practitioners. Advanced Emergency Nursing Journal, 38(4), 300-307. http://journals.lww.com/aenjournal/Fulltext/2016/10000/Unique_Educational_Needs_of_Emergency_Nurse.8.aspx

Limitation of study

Only FNPs were surveyed

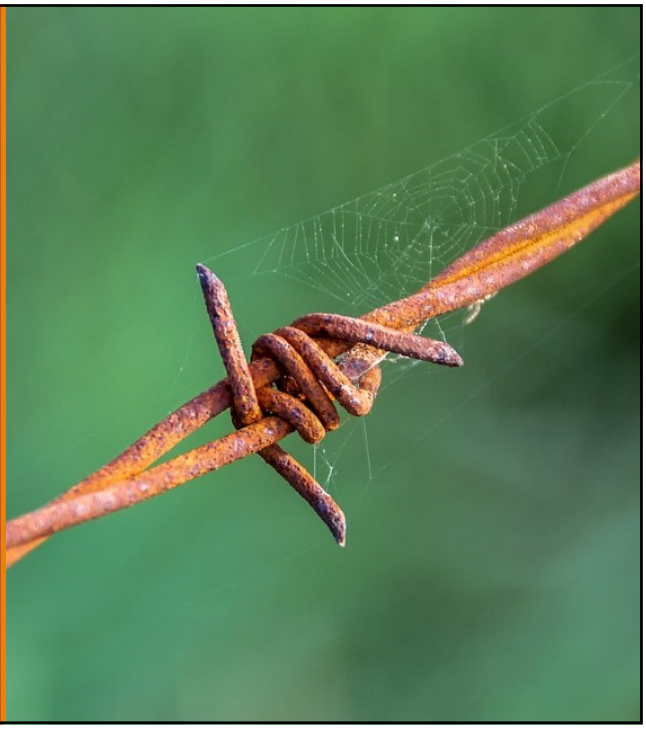
Sample size was limited

- OJT: 153; PM Academic: 44; Fellowship: 18

Info on type of mentoring, conferences, workshops, etc.

Did not evaluate several dependent variables

- Emergency Setting
- Emergency Section of ER
- Other certifications
- ESI Triage Scoring



Questions?

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