



Showcase for Hopkins Inquiry and Nursing Excellence

# SHINE

Conference

## **EBP Intensive Experience and Lessons Learned**

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## Financial Relationships

All individuals involved in the planning and delivery of this activity have no relevant financial relationship(s) with ineligible companies.

## Commercial Support

This educational activity has not received any form of commercial support.

## Off-Label or Investigational Use

This presentation will not discuss the off-label or investigational use of a drug, biological product, or medical device name.

- EBP process
  - Describe process for developing question and search terms using PICO format
  - Identify (1) source of support offered to HCMC employees for literature search
  - Recall levels of evidence used in appraisal
  - Recall measurements of quality used to appraise evidence
  - Describe difference between summarizing and synthesizing evidence
  - Identify how to determine type of recommendation from the evidence quality and consistency
- The EBP Intensive: How we applied the theory in practice
- Lessons learned: Our team's experience

# Summary of Conducting an EBP Project

Overview of Evidence-Based Practices



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# Summary of Conducting an EBP Project

Overview of Evidence Based Practices

# Overview of the EBP process

*PET process outlines steps*

- **Practice question and project planning**
  - Formation of the project team and roles/responsibilities
  - Careful formation of question, and is EBP project needed?
  - The adage that applies here: Fail to plan = plan to fail
- **Evaluation**
  - Search, appraise, summarize, synthesize the evidence
  - Develop recommendations
- **Translation**
  - Develop & implement action plan based on above recommendations

# Practice Question/PICO

## *Problem identification and question development*

- Begin with: What is the problem?
  - Take time with this step.
  - High-quality, well-defined problem results in better quality EBP
- Is there existing high-quality evidence addressing this problem?
  - If yes, STOP here. Consult that evidence to guide practice!
- Question development using PICO
  - **P** (Patient, population or problem)
  - **I** (Interventions)
  - **C** (Comparison)
  - **O** (Outcomes)

# Gathering the Evidence

*Process and resources for gathering evidence for EBP*

- **Search:** guided by
  - PICO question
  - Search terms generated during question development
  - Valuable resources available to all JHHS employees
    - Welch library
    - Informationist - Stella Seal
    - Covidence
- **Screening:** systematically eliminate evidence by:
  - Titles, then
  - Abstracts, and finally
  - Full text review
  - At least two reviewers at each decision point
  - The final list = evidence eligible for appraisal



# Gathering the Evidence

Process and resources for gathering evidence for EBP

The screenshot shows a web browser at <https://welch.jhmi.edu>. The navigation bar includes tabs for "Books, Journals and Media", "Resources", "Welch Classes", and "Services".

**Resources**

- Medical Key Lexicomp
- Medical Key for Coding UpToDate
- PubMed Medex

**Literature Databases**

- Cochrane Med Embase
- PubMed Plus PsycINFO
- Web of Science

**Search Tools**

- ORCID Registry JH ORCID Registry
- Research Expert Profiles JH Research Expert Profiles
- Research Guides Research Guides
- SOM Archive PTool SOM Archive

**Welch Classes**

- Introduction to R for Absolute Beginners**  
Mar 14, 2024, 10:00am-12:30pm
- Open Access Basics** Online  
Mar 20, 2024, 12:00pm-1:00pm
- Scholarly Journal Publishing and YOU!** Online  
Mar 27, 2024, 12:00pm-1:00pm
- Systematic Reviews: Processes and Tools** Online  
Mar 28, 2024, 11:00am-11:45am
- BioCyc: A Database of Microbial Genomes and Pathways** Online  
Apr 3, 2024, 10:00am-11:00am

**Services**

**Find Your Informationist**

Informationists by name or  
se

- Joseph, Emily
- Seal, Stella**
- Twose, Claire
- Infectious Diseases
- Institute for Clinical and Translational Research

# Evidence Appraisal

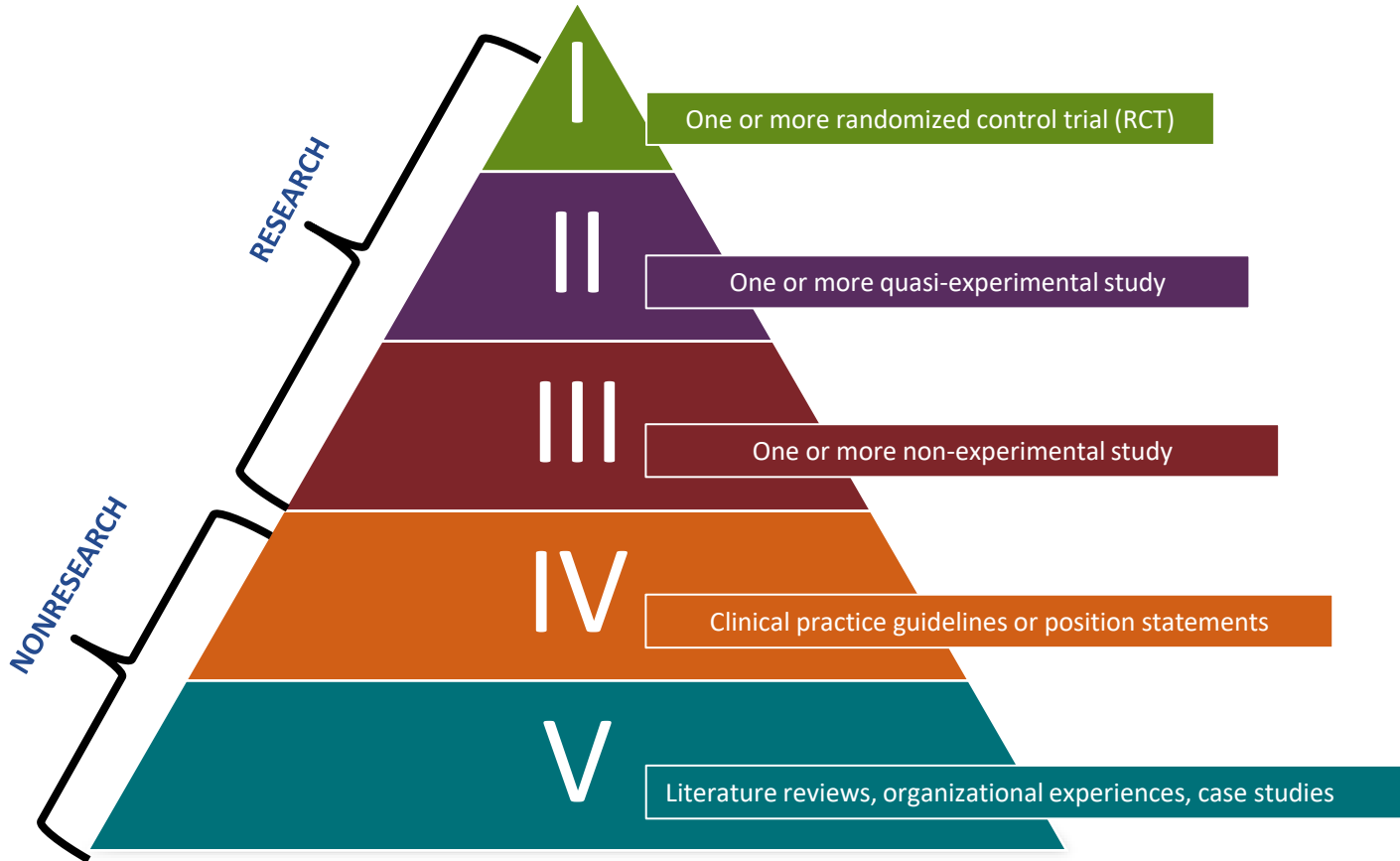
*What is appraisal?*

Appraisal is the process of determining the strength of each individual piece of evidence



Slide used with permission from the Center for Nursing Inquiry

# Johns Hopkins Levels of Evidence



Slide used with permission from the Center for Nursing Inquiry

# Evidence Appraisal

*Examining the quality of evidence and deciding what to keep*

- Quality of evidence
  - Evaluate the quality of:
    - Methods and measurements
    - Findings/data
    - Reporting
  - To use or not to use?
    - Accept evidence of high or good quality
    - Do not include low quality evidence

From Appendix E: Research Evidence Appraisal Tool &  
Appendix F: Nonresearch Evidence Appraisal Tool (Dang et al, 2022)

# Summary & Synthesis

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*Put it together! What does the evidence say about best practice?*

- **Summarize**
  - List results
- **Synthesis**
  - The combining of often diverse conceptions into a coherent whole (Merriam Webster, 2024)
  - Consider all the relevant results to generate a big-picture understanding of the meaning of the overall body of evidence



# Summary

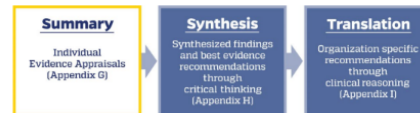
*What does each piece of evidence say about best practice?*

- **Summarize each article**

- Spread sheet that lists the articles and findings
  - Appendix G (Dang et al., 2022) is useful to summarize findings
- Include level and quality rating of each article
- List findings that answer the EBP question for each

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals

Individual Evidence Summary Tool  
Appendix G



EBP Question:										
Reviewer name(s)	Article number	Author, date, and title	Type of evidence	Population, size, and setting	Intervention	Findings that help answer the EBP question	Measures used	Limitations	Evidence level and quality	Notes to team

From Appendix G Individual Evidence Summary Tool (Dang et al, 2022)

# Synthesis

*Put it together! What is the big-picture meaning of the evidence?*

- Generate synthesized meaning from evidence
  - Consider all relevant results
  - Generate a big-picture understanding of the meaning of the overall body of evidence
- Appendix H
  - Useful tool
  - Organize the synthesis process and results

From Appendix H Synthesis and Recommendations Tool (Dang et al, 2022)

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals

Synthesis and Recommendations Tool  
Appendix H

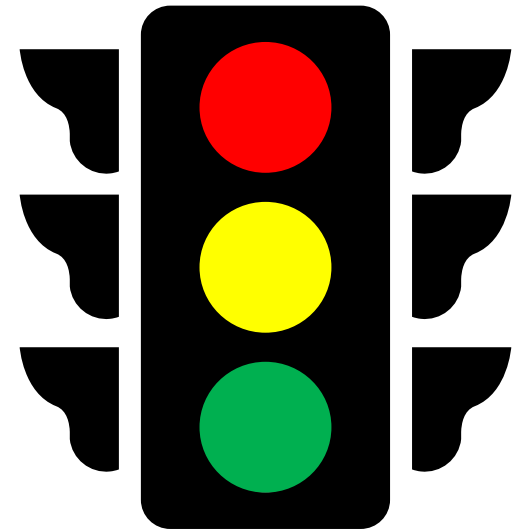


EBP Question:			
Strength		Number of Sources (Quantity)	Synthesized Findings With Article Number(s) (This is <i>not</i> a simple restating of information from each individual evidence summary—see directions)
Level	Overall Quality Rating (Strong, good, or low)		
<b>Level I</b> ▪ Experimental studies			
<b>Level II</b> ▪ Quasi-experimental studies			
<b>Level III</b> ▪ Nonexperimental, including qualitative studies			
<b>Level IV</b> ▪ Clinical practice guidelines or consensus panels			
<b>Level V</b> ▪ Literature reviews, QI, case reports, expert opinion			

# Overall Features of the Body of Evidence

*Put it together! How heavily can we rely on the evidence?*

- **Consistency of results**
  - Does evidence agree on conclusions & to what extent?
- **Strength of evidence**
  - Robust, high quality vs. good quality
  - Poor quality previously eliminated
- **Amount of evidence**
  - If little evidence exists, more information is needed prior to action being taken



From Appendix H Synthesis and Recommendations Tool (Dang et al, 2022)



# Translation, Implementation, Dissemination

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# THE EBP INTENSIVE: WORKPLACE VIOLENCE IN HEALTHCARE

Application of EBP Best Practices

# EBP Intensive: Spring 2023

## *Membership and Goals*

### **Cohort Members**

- Rachel Gordon\* (Case Mgmt)
- Vicki Lowe\* (Lactation)
- Bailee Thomas (NICU)
- Rinchu George (4P, Acute)
- Bridget Montgomery (PACU)
- Miah Bigio (3S, SCU)
- Julia Martin (3 C ICU)
- Teresa McCamon (Suburban)

### **Goals**

- Examine evidence for practices to reduce WPV
  - HCMC strategic goals
  - WPV reduction guidelines (OSHA, TJC)
- Increase capacity for EBP at HCMC

\*Members of Nursing Inquiry Committee at HCMC

# Exploring the problem

Why do an EBP on WPV?

- **Known: Current State**

- Cochrane review existed, but did not provide good answers
- Validated tools exist to identify patients at-risk for aggression
- Recent guidelines call for reduction in WPV
  - TJC, OSHA
  - No guidance about *how* to reduce WPV

- **Known: Need to Change**

- Physical, psychological, emotional harm to clinical staff
- Financial loss to organization – injury, time off, turnover

- **Not Known: Best Practice for Change**

- What is the state of evidence on interventions to reduce violent events among patients identified as potentially aggressive in the inpatient setting?

# Method and Problem Statement

Why do an EBP on WPV?

- **Method**

- Johns Hopkins Evidence-based Practice for Nurses and Healthcare Professionals Model.

- **Problem statement**

Incidents of workplace violence are increasing across the health system, and we currently do not have a standardized, best-evidence approach to identify patients at risk for perpetrating violence and intervening to prevent violence events.

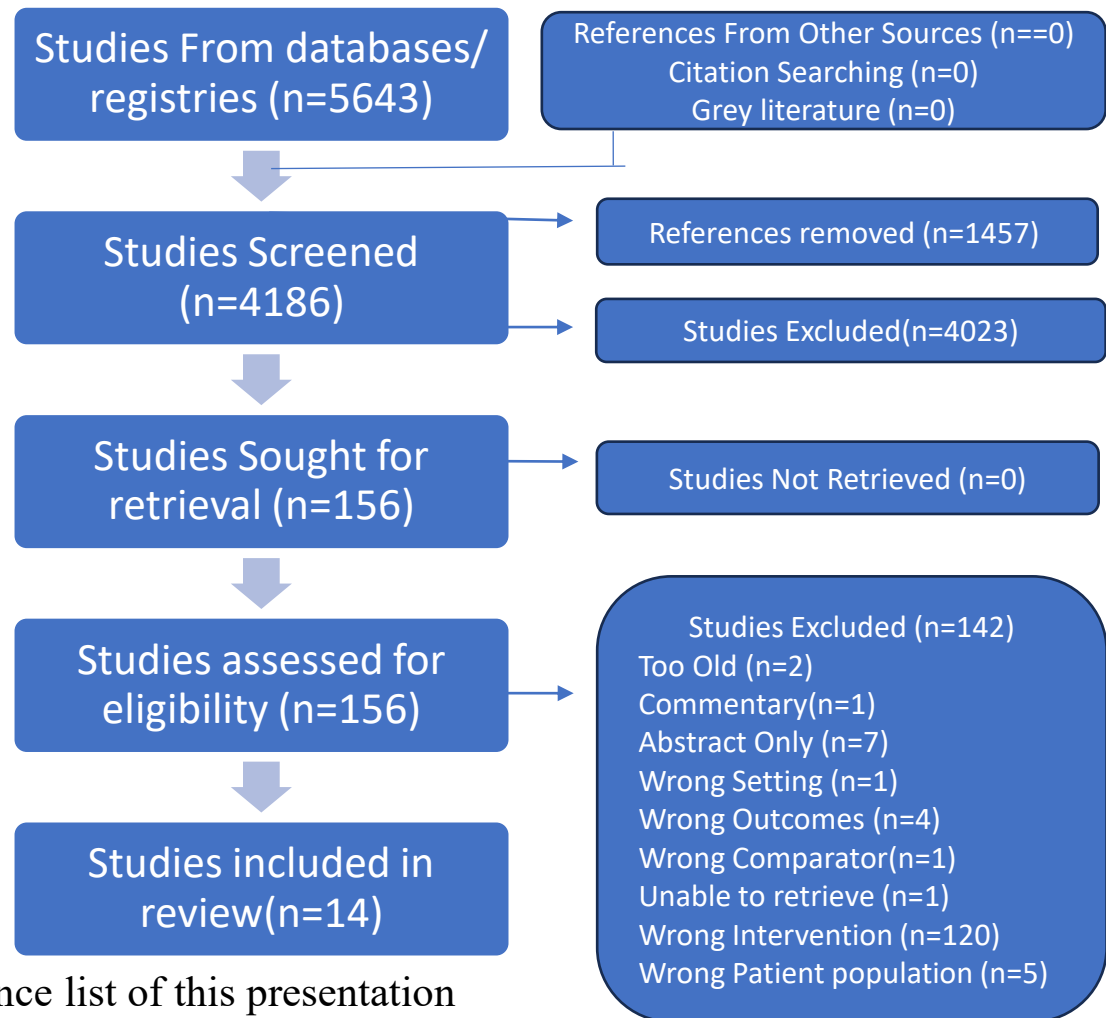
- **PICO Question**

- **P** (patient, population, or problem): patients identified as potentially aggressive in the inpatient setting (including ED)
- **I** (intervention): interventions to prevent violent events
- **C** (compare to other interventions if *foreground* question): n/a
- **O** (outcomes): incidents of violence

# Search Strategy

Evidence level and quality

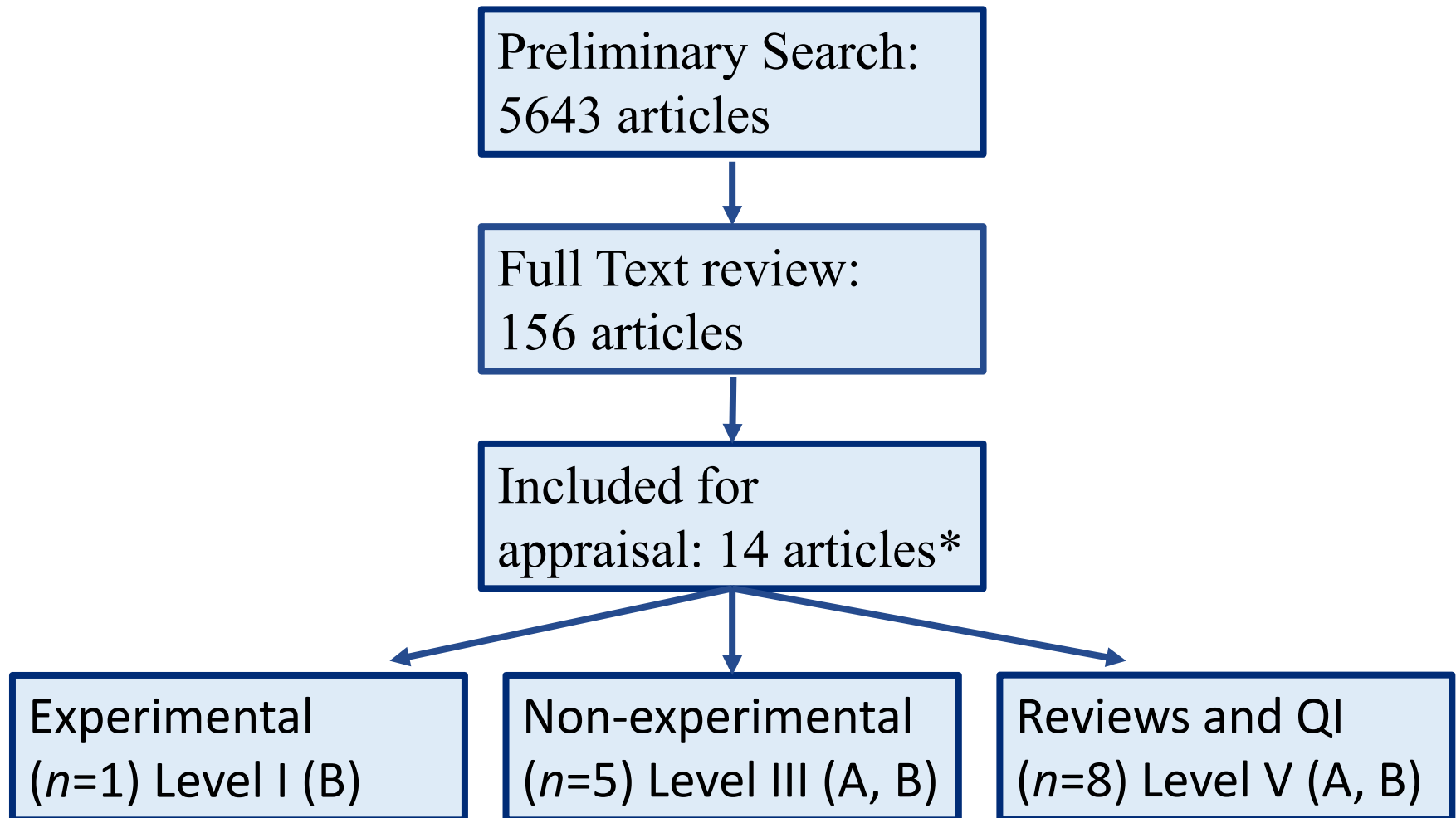
- With Librarian
- Searched January 2019- February 2023
- search databases
  - PubMed
  - CINAHL
  - Embase
  - JBI



\*Appraised articles listed in reference list of this presentation

# Appraisal of Evidence

Evidence level and quality



\*Appraised articles listed in reference list of this presentation

# Final Synthesis

Key findings of the appraised body of evidence

- **Security measures**
  - Staff deemed most helpful
  - Inconsistent impact on aggressive behaviors
- **Behavioral Intervention Teams (BIRT)**
  - Increase in nurses' confidence
  - Inconsistent impact on patient behavior
- **Communication**
  - Among staff and between departments
    - Handoff, safety huddles may reduce WPV
    - Stronger evidence for staff/security or staff/ Behavioral Intervention Teams
  - Between staff and patients
    - De-escalation sometimes reduces aggression



# Final Synthesis

Key characteristics of the appraised body of evidence

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- Evidence quality not strong
- Inconsistent findings
- Additional research needed to examine strategies to prevent WPV by at-risk patients



- Pilot research study
  - Evaluate strategies to prevent violence
  - Tied to patient risk assessment score
- Additional EBP reviews (2)
  - Best practices for staff training
  - Best practices for debriefing
- Address sustainability
  - Evaluation of current metrics
- JHHS system-wide research project





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# Lessons Learned

Our team's experiences

# Lessons Learned

Experiential learning

- EBP takes time
- Strong teams = strong projects
  - Team players
  - Diversity adds value
  - Conflict resolution
- Don't fear the process



*Thanks for the support  
of the Center for  
Nursing Inquiry (CNI)*

*We'd like to  
acknowledge the time  
and talents of the  
members of the  
CNI who made this  
project possible*

CNI  
Heather Watson  
Maddie  
Whalen Nadine  
Rosenblum

FEELING  
**GRATITUDE**  
AND NOT  
EXPRESSING IT  
IS LIKE  
**WRAPPING A  
PRESENT**  
AND NOT  
GIVING IT.

~WILLIAM ARTHUR WARD~

*honeybear lane*



*Questions?*

Dang, D., Dearholt, S. L., Bissett, K., Ascenzi, J., Whalen, M. (2022). *Johns Hopkins Evidence -Based Practice for Nurses and Healthcare Professionals: Model & Guidelines*, (4<sup>th</sup> ed.). Sigma Theta Tau International Honor Society of Nursing.

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- <sup>5</sup> Dafny, H. A., & Muller, A. (2021). Australian nurses' suggestions for the management of violence in the workplace: 'The people who make the policy are not the people on the floor.' *Journal of Nursing Management*, 30(6), 1454–1461. <https://doi.org/10.1111/jonm.13378>



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