The background of the slide is a close-up, slightly blurred image of the American flag, showing the stars and stripes in shades of blue, red, and white.

Mission Ready: Changing the Physical and Emotional ED Environment

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Components of Health: Surroundings



SURROUNDINGS – Physical and Emotional

- Environment directly affects you and your health.
- Pay attention to what might influence your life and health, and improving what you can.
- It matters to have safe, comfortable, and healthy spaces

Changing the ED Physical and Emotional Surroundings

- Surroundings can affect a Veteran's health and well-being.
- Start by paying attention to the environmental and emotional influences.
- Making changes in the physical environment to provide holistic, patient-centered care.

Changing the Physical ED Environment

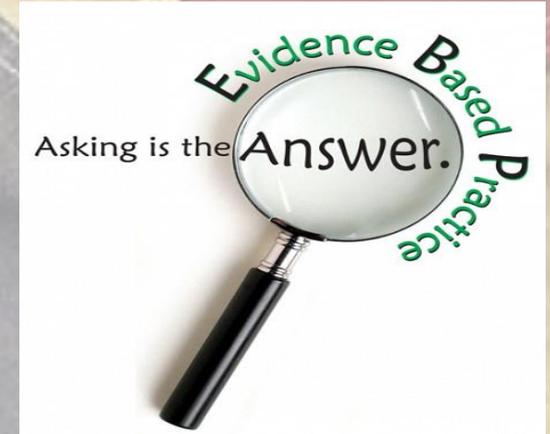
In an effort to provide holistic, patient-centered care (PCC) in the Emergency Department (ED), it is important to consider the evidence-based research available on the physical environment. We looked at how staff performs their job and how the environment influences the patient and family's ED experience.



Systematic Review Objectives:

Perform a literature review using CINAHL and Medline databases to answer the following PICO question:

“What evidence based, patient-friendly environmental surroundings in the ED produce different or better outcomes for patients when compared to the traditional ED environment?”



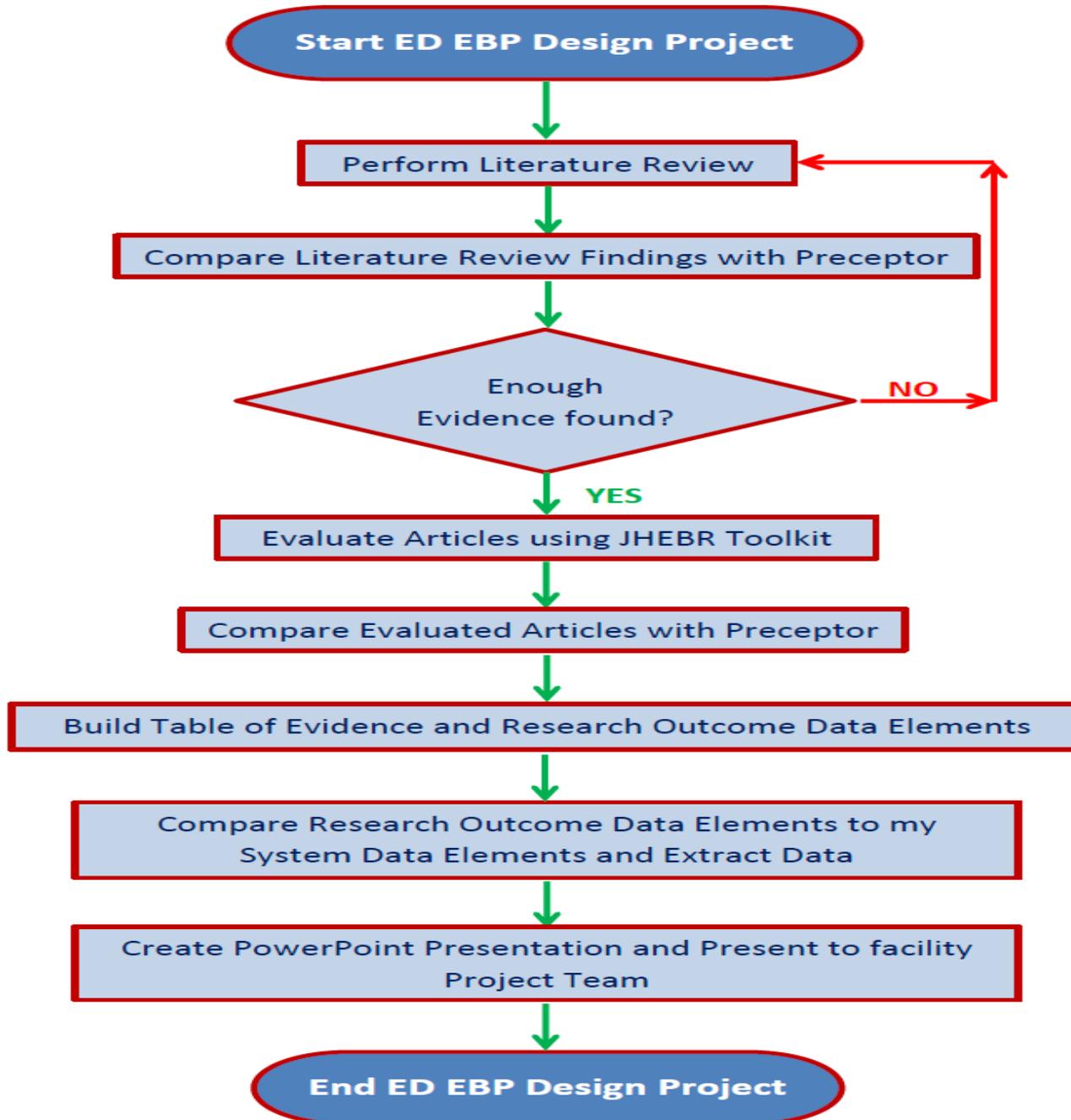
So, what does PICO stand for?

- The “P” in the PICO acronym stands for populations/people/patient/problem, in this case, representing the Veterans and families seen in the ED.
- The “I” represents interventions that could be implemented focusing on patient-centered or patient friendly environments shown to provide improved outcomes for patients.
- The “C” represents comparison to traditional ED environments where priorities focus on provider efficiencies and workflow processes.
- The “O” stands for outcome of the research and how it can be applied to enhance the patient’s experience.

Steps Used to Identify Relevant Literature

1. Identification of potential research articles in the CINAHL and Medline databases. (Keywords used were emergency department, system redesign for emergency department, patient-centered care in the emergency department, holistic care in the emergency department, lean methodology in the emergency department, physical changes in the emergency department, patient-centered environment in the emergency department from 2000 - 2014)
2. Review of results for database searches used to determine which articles were relevant to the PICO question.
3. Articles were reviewed to confirm relevance to the PICO question using the Johns Hopkins Research and Non-Research Evidence Appraisals forms.
4. The level of evidence and quality of the research studies were scored and summarized.

ED EBP Project Flow Map of Tasks



Results of the Review

- 59 articles initially reviewed, 21 relevant
- 10 articles identified as research studies: 1 prospective cohort study and 9 descriptive or observational designs.
- Non-research studies: included concept analysis, quality improvement projects, and expert opinions.

Summary of Level of Evidence and Quality

Research	
2A	1
3A	7
3B	2
Total	10

Non-Research	
4A	1
4C	1
5A	4
5B	1
5C	4
Total	11

2 - Moderate
3 - Moderate
4 - Low
5 - Lowest

A - High
B - Moderate
C - Low

Evaluating the Quality

- Look at the data captured in the literature review outcomes and determine comparable extract data collected at TVHS.
- Create an Table of Evidence with data elements and a summary of the findings.

ED Environmental Table of Evidence

Journal Information	Included	VA/non-VA	Study design	Population/Sample	Analysis	Level	Quality	Findings/Results	Outcomes measured	Recommendations
Asha, S. E., & Ajami, A. (2013). Improvement in emergency department length of stay using an early senior medical assessment and streaming model of care: A cohort study. <i>Emergency Medicine Australasia: EMA</i> , 25(5), 445-451. doi:10.1111/1742-6723.12128	Y	non	Prospective cohort study	n=18962	Pearsons χ^2 -test, Mann-Whitney U-test, Student's t-test		2A	Implied Physical	Streamlining process	Funnel pts with low acuity thru a separate stream with dedicated staff and treatment areas, fast track area has a medical provider, see pt with a more complex set of problems earlier
Assid, P.A. (2011). Transforming an emergency department: From crisis to Excellence. <i>J Emerg Nurs</i> , 37, 537-40.	Y	non	Quality improvement for the ED	25 bed ED with 3 separate Fast Tracks	Described 8 actions taken		5A	left without being seen up 3% to 7.1%, pt satisfaction poor, staff vacancy rate 48%, turnover rate 48%, pt wait time 4 hours for exam room assessment, waiting to be triaged 45 minutes,	Number of patient who left without being seen, Patient satisfaction, staff vacancy rates, staff turnover rates, wait times for triage	Redesigned fast track, 5:1 ration, 3 rooms fast track-2 for main ED pt, wait time reduced to 30 minutes, use bedside triage
Bartlett, S., & Fatovich, D. M. (2009). Emergency department patient preferences for waiting for a bed. <i>Emergency Medicine Australasia: EMA</i> , 21(1), 25-30. doi:10.1111/j.1742-6723.2008.01147.x	Y	non	Survey study	n=400	Descriptive statistics		3A	Pts would rather wait in the inpatient corridor than in the ED, 30.2% had no preference of location when waiting for a bed, 53.8% preferred an ED cubicle, pt expected to get a bed with 3hr-72.1% not met, main cause of overcrowding is access block, more women than men preferred the ward corridor, waiting in corridors less noisy, less chaotic, a step closer to a bed, allowed visitors, increased pt satisfaction scores when waiting occurs in corridors	Preference of location to wait for admission bed, expectations met/not met, survey instrument on p 29-30.	Expect to get in admission bed within 3 hours, reason to not wait in ED corridor is because it is not as noisy, less distractions.

Summary of Research Level of Evidence and Quality

- Level Found:

- Moderate
- No randomized control trials
- Only one Quasi-experimental
- Most were mixed method or non-experimental

- Quality Found:

- High quality
- Good

Types of Design

- **Most Common**

Expert Opinion/Organizational – 5

Mixed Method - 4

- **Others**

Prospective cohort study - 1

Systematic review - 1

Quality Improvement - 1

Survey study - 1

Case Report - 2

Ethnographic/Qualitative – 1

Non-Experimental – 1

Clinician Experience – 1

Exploratory – 1

Phenomenal

logical/Qualitative – 1

Qualitative - 1

Common Themes Identified

- Safety
- No privacy
- Staff not involved in the design phase
- Noise levels
- Fast Track used
- Lean Methodology when redesigning space
- No grieving room
- No separate entrance

Outcomes Reported

- Patient satisfaction scores
- Staff satisfaction scores
- Length of wait time
- Dying patient's room décor reflecting home environment
- Need for separate family grieving rooms
- Barriers in providing exceptional End-of-Life care
- Ways to improve patient flow
- Ways to reduce noise levels

Recommendations

- Create a safe environment for staff and patients
- Allow staff to be involved in the design of the ED
- Ensure the designer is aware of the requirements of the Americans with Disabilities Act
- Create a Fast track to see emergent and non-emergent patients
- Provide space for a mental health care provider that is available in the ED at all times.
- Create separate entrances for the walk-in patients and the ambulances

Outcomes Measured at VHA

Outpatient Composite and Reporting Measures

- How Well Doctors/Nurses Communicate
- Overall Rating of Personal Doctor/Nurse
- Getting Needed Care
- Overall Rating of Health Care
- Getting Care Quickly
- Overall Rating of VA Specialist
- Provider Wait Time 20 minutes or less
- Staff satisfaction scores

Summary of the Design Project, Literature Review, and Table of Evidence

- It is important to identify what evidence exists in the professional literature and determine the combined level of evidence available to support practice changes.
- Findings indicate research is needed to help clinicians and designers better understand the impact physical changes to encourage a healing environment in the ED can have on clinical care and Veteran experiences.
- Patient and staff satisfaction scores will be measured in the ED again in approximately 6 months after the design changes have been completed.

Future Steps

- Pre-outcome measurement at 1 month prior to initiation of ED changes
- Implement physical changes
- Post-outcome measurement at 6 months past completion

Questions/Comments

