

Sparkling a Movement: Innovating Evidence-Based Practice at the Bedside

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Objectives

- Discover a clinical nurse-driven intervention that embraces components of a positive work environment.
- Explore a strategy to bridge the gap between evidence and the bedside through the implementation of a unit-based EBP team.

Background on Problem

- NDNQI nurse satisfaction survey scores below benchmark
- Staff complaints to administration
- How can a clinical nurse improve satisfaction in the ICU?

Purpose

- Identify a staff-driven intervention to improve nursing satisfaction of registered nurses in the intensive care unit



Literature Review

- 1980's: nursing shortage
 - Nursing retention and satisfaction become topics of interest
- Some hospitals better at retaining nurses
 - Common trends in work environments
 - Nursing Work Index
 - Environmental factors make up positive work environment
 - Predict nurse satisfaction
- Magnet organizations were born

Work Environments

	Positive Work Environments	Poor Work Environments
Nursing Outcomes	<p>↑ nurse satisfaction and morale (Mitchell, Armstrong, Simpson, & Lentz, 1989)</p> <p>↓ turnover rate (Mitchell, Armstrong, Simpson, & Lentz, 1989)</p>	<p>↑ nursing burnout and dissatisfaction (Aiken et al., 2011)</p>
Patient Outcomes	<p>↓ nurse-reported healthcare-associated infections (Kelly, Kutney-Lee, Lake, & Aiken, 2013)</p> <p>↓ failure to rescue rates and decrease mortality risk (Aiken, Smith, & Lake, 1994)</p> <p>↑ patient satisfaction scores and perceived increase in quality of care (Aiken et al., 2011)</p>	<p>↓ perceived quality care and patients feeling unprepared for discharge (Aiken et al., 2011; Twigg & McCullough, 2014)</p>

Structural Empowerment

- Structural empowerment (Kanter, 1993)
 - Results from access to information, support, resources, and opportunity structures within the workplace
 - Occurs through both formal and informal means
 - “Conditions in the workplace that enable optimal job performance” (Laschinger, 2008, p. 329)
- When nurses see themselves as having greater access to empowerment structures, they perceive their work environment to be more positive (Breau & Rhéaume, 2014; Laschinger, 2008)

Psychological Empowerment

- Psychological empowerment (Spreitzer, 1995)
 - Four components: meaning, competence, self-determination, and impact
 - Active form by which one becomes empowered in his or her work (Wagner et al., 2010)

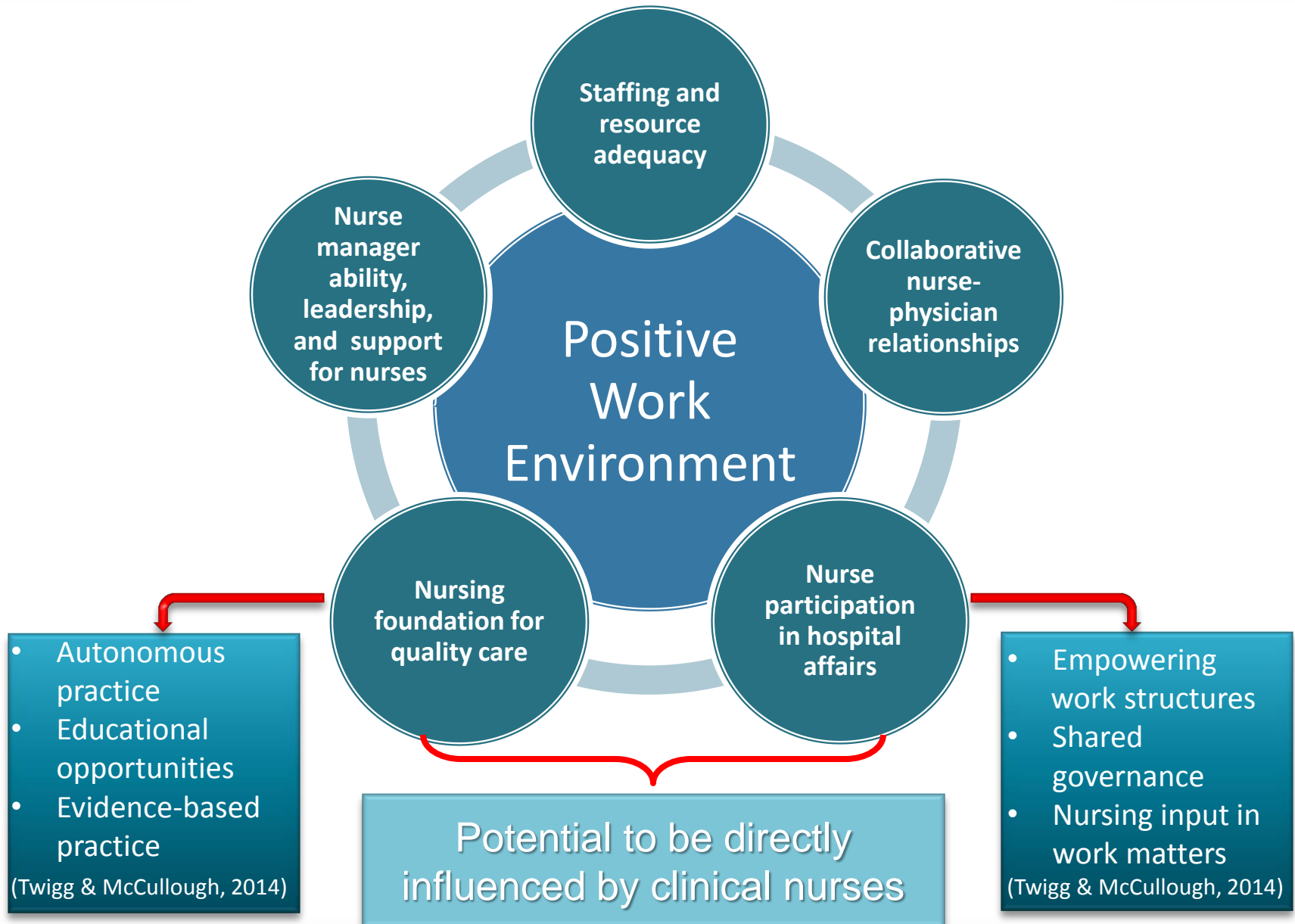
**Positive Work
Environment**

**Structural
Empowerment**

**Psychological
Empowerment**

Satisfaction

Positive Work Environment (Lake, 2002)



Unit-Based EBP Team



**Education must transform to active practice to
impact empowerment and satisfaction**

(Belden, Leafman, Nehrenz, & Miller, 2012; Melnyk, Fineout-Overholt, Giggelman, & Cruz, 2010)

Methods

- Setting

- 24-bed general ICU at 132-bed community hospital

- Participants

- Inclusion: all registered nurses in this unit (N=67)
- Exclusion: Traveler and registry nurses

- EBP Team

- Seven clinical nurses
- EBP Fellow
- Two CNS mentors

- EBP Team project

- All clinical nurses participated

Preparing for EBP Team

- Collected clinical nurses' suggestions for topics
- Unit vote for which topic EBP Team should address
 - Topic chosen: incorporation of a delirium assessment tool into ICU assessment
- Leadership support
 - Approval for team members to receive monetary compensation for EBP Team time

EBP Team Structure

- Chair: Clinical Nurse
 - EBP Fellow
- Co-chair: Clinical Practice Manager, Critical Care
- Members
 - Clinical nurses
 - Seven ICU nurses participated
 - Other disciplines as appropriate to topic
- Advisors:
 - Clinical Practice Manager, Translational Research
 - Clinical Nurse Manager, Intensive Care
 - Director, Critical Care
- Support
 - Administrative Assistant, Intensive Care



EBP Team Timeframe

- Pilot EBP Team
- Time-frame
 - 4 weekly meetings
 - Meeting 1: 2.5 hours
 - Meetings 2-4: 2 hours
 - 6-week unit-based EBP project

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7/26	7/27	7/28	7/29	7/30 Meeting 1 0800-1000 Location: TBA	7/31	8/1
8/2	8/3	8/4	8/5	8/6 Meeting 2 0800-1000 Location: TBA	8/7	8/8
8/9	8/10	8/11	8/12	8/13 Meeting 3 0800-1000 Location: TBA	8/14	8/15
8/16	8/17	8/18	8/19 Staff Meeting – Update progress & announce Go-live	8/20 Meeting 4 0800-1000 Location: TBA	8/21	8/22
8/23	8/24	8/25	8/26	8/27	8/28	8/29
8/30 EBP Go-live	8/31	9/1	9/2	9/3	9/4	9/5

EBP Team

Meeting 1

- Dynamic instruction on literature search
 - PICOT, navigating available databases, search strategies, Boolean operators, limits, etc.
- Critical appraisal
 - Preselected article pertaining to subject
 - Rapid Critical Appraisal Tools
 - Permission obtained from Center for Transdisciplinary Evidence-Based Practice (CTEP)
- Homework: Read two articles, appraise one of them

Sample Agenda

Time	Activity
8:00 – 8:15	Welcome Purpose of EBP Team Introduction of EBP Topic
8:15- 8:30	Clinical Question PICOT format
8:30- 9:15	Performing a Literature Search <ul style="list-style-type: none">- Research databases available- Search strategies- Boolean operators- Limits
9:15- 10:15	Performing Critical Appraisal Part 1 <ul style="list-style-type: none">- Levels of Evidence- Review tools- Perform group appraisal on Article 1
10:15- 10:30	Wrap-Up Homework: <ul style="list-style-type: none">- Critically appraise one article- Continue to search for pertinent literature

EBP Team

Meeting 2 and 3

- Critical appraisal and discussion of articles
 - Chair facilitated during meeting 2
 - Clinical nurses facilitated during meeting 3
- Review summary and synthesis tables
- Homework:
 - Meeting 2: Read three articles, appraise one
 - Meeting 3: Think about EBP project design

EBP Team

Meeting 4

- EBP Project Design
 - Project aim, stakeholders, timeline, methods, and outcomes
- Delirium Tool Trial
 - Trial two tools – 6 weeks total
 - 2.5 weeks per tool
 - 1 week washout period in between
 - Nurse evaluation of tools
- Homework: Communicate EBP Team project and go-live date to other staff members

Unit-based EBP Project

- Approval through Critical Care Committee
- Facilitated delirium tool trial
- Reviewed evaluations
- EBP Team made recommendation based on evaluations
 - Presented evaluation results at staff meeting

Instruments

- **EBP Beliefs Scale** (Melnyk, Fineout-Overholt, & Mays, 2008)
 - Participants' beliefs about EBP value and their ability to implement EBP
- **EBP Implementation Scale** (Melnyk et al., 2008)
 - Participants self reporting how often they performed an EBP task-related item in the past eight weeks

Instruments

- Psychological Empowerment Instrument

(Spreitzer, 1995)

- Self-orientations participants may have regarding their work within four subdimensions
 - Meaning, competence, self-determination, and impact

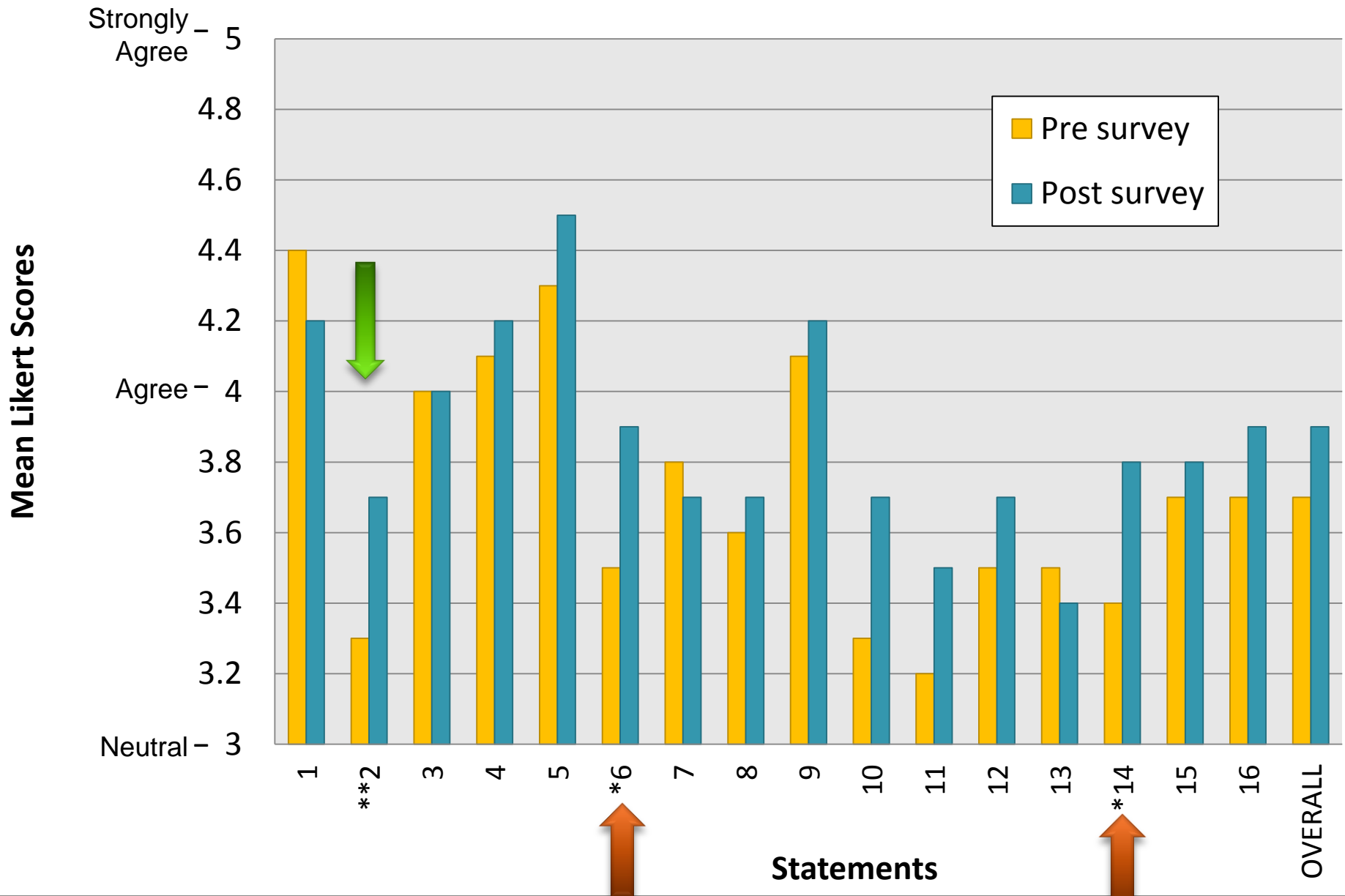
- Generic Job Satisfaction Scale (Macdonald & MacIntyre, 1997)

- Measures happiness with one's job

Data Collection

- Two online surveys sent via email
 - EBP Beliefs and Implementation
 - Psychological Empowerment and Satisfaction
- Three month time period between pre and post surveys

Results: EBP Beliefs Scale (n=11)

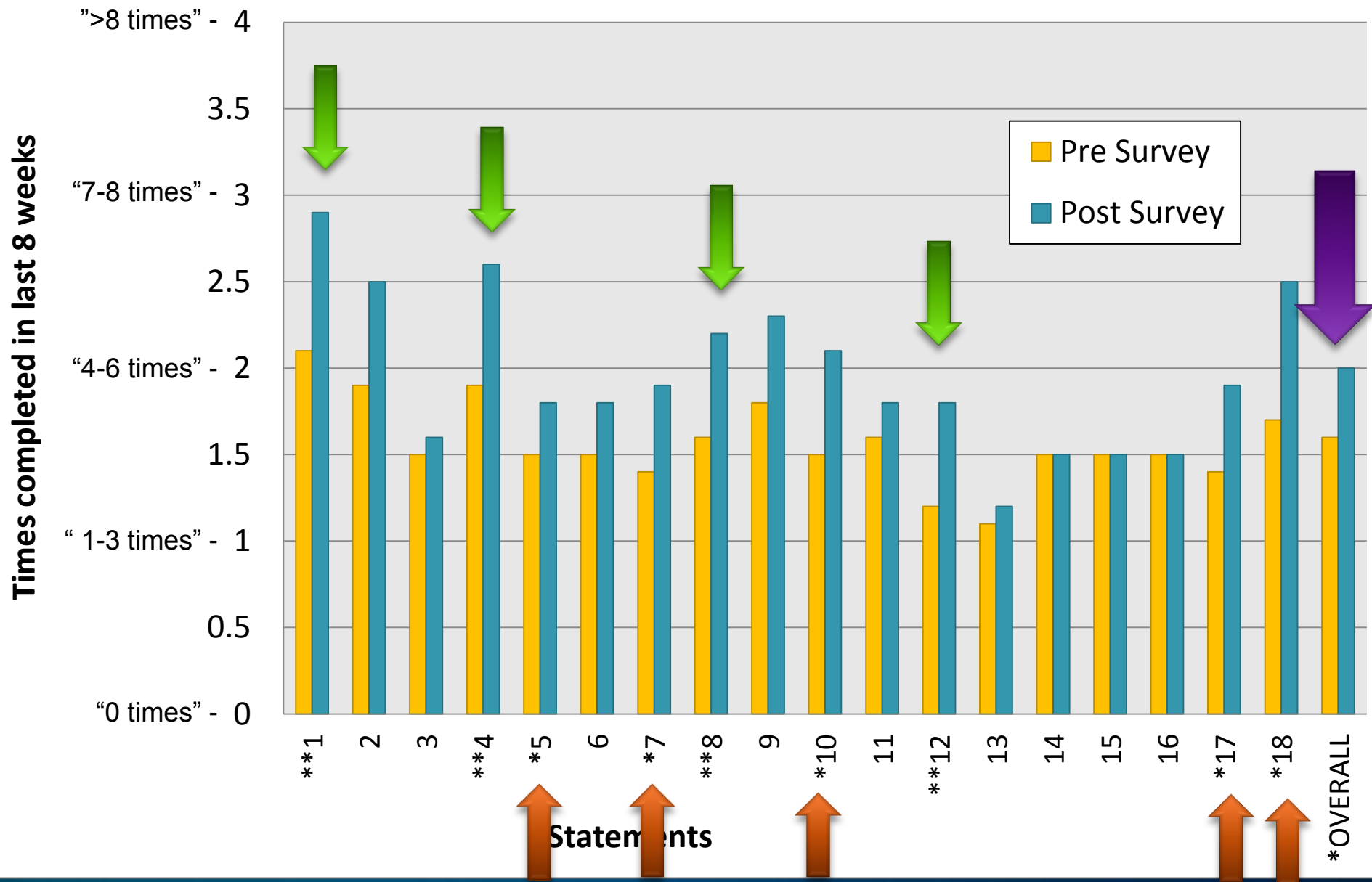


Results

EBP Beliefs Scale

- Demonstrates statistically significant increase in belief in ability to:
 - Search for best evidence to answer clinical questions efficiently ($p=0.04$)
 - Knowledge of implementing EBP to make practice changes ($p=0.02$)
- Approaching statistical significance
 - Understand the steps of EBP ($p=0.1$)

Results: EBP Implementation Scale (n=11)



Results

EBP Implementation Scale

- Demonstrates statistically significant increase in number of times:
 - Collected data on patient problem ($p=0.04$)
 - Evaluated outcomes of practice change ($p=0.03$)
 - Shared evidence of research study with a multidisciplinary team member ($p=0.02$)
 - Changed practice based on patient outcome data ($p=0.01$)
 - Promoted the use of EBP to colleagues ($p=0.02$)

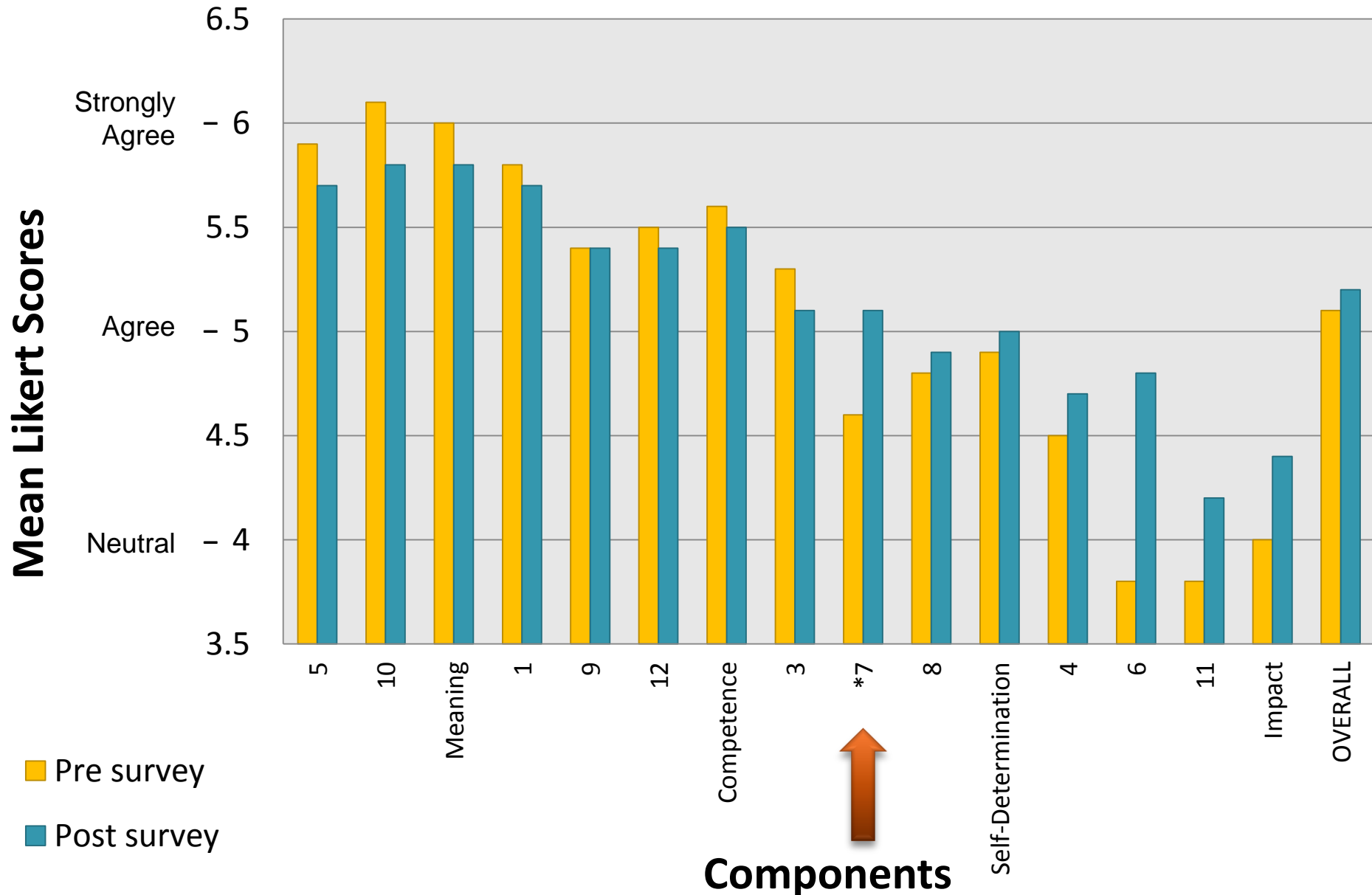
Statistically significant overall increase in EBP tasks performed ($p=0.004$)

Results

EBP Implementation Scale

- Demonstrates increase number of times approaching statistical significance:
 - Used evidence to change practice ($p=0.07$)
 - Informally discussed evidence from a research study with a colleague ($p=0.09$)
 - Shared an EBP guideline with a colleague ($p=0.08$)
 - Accessed Cochrane database of systematic reviews ($p=0.07$)

Results: Psychological Empowerment (n=17)

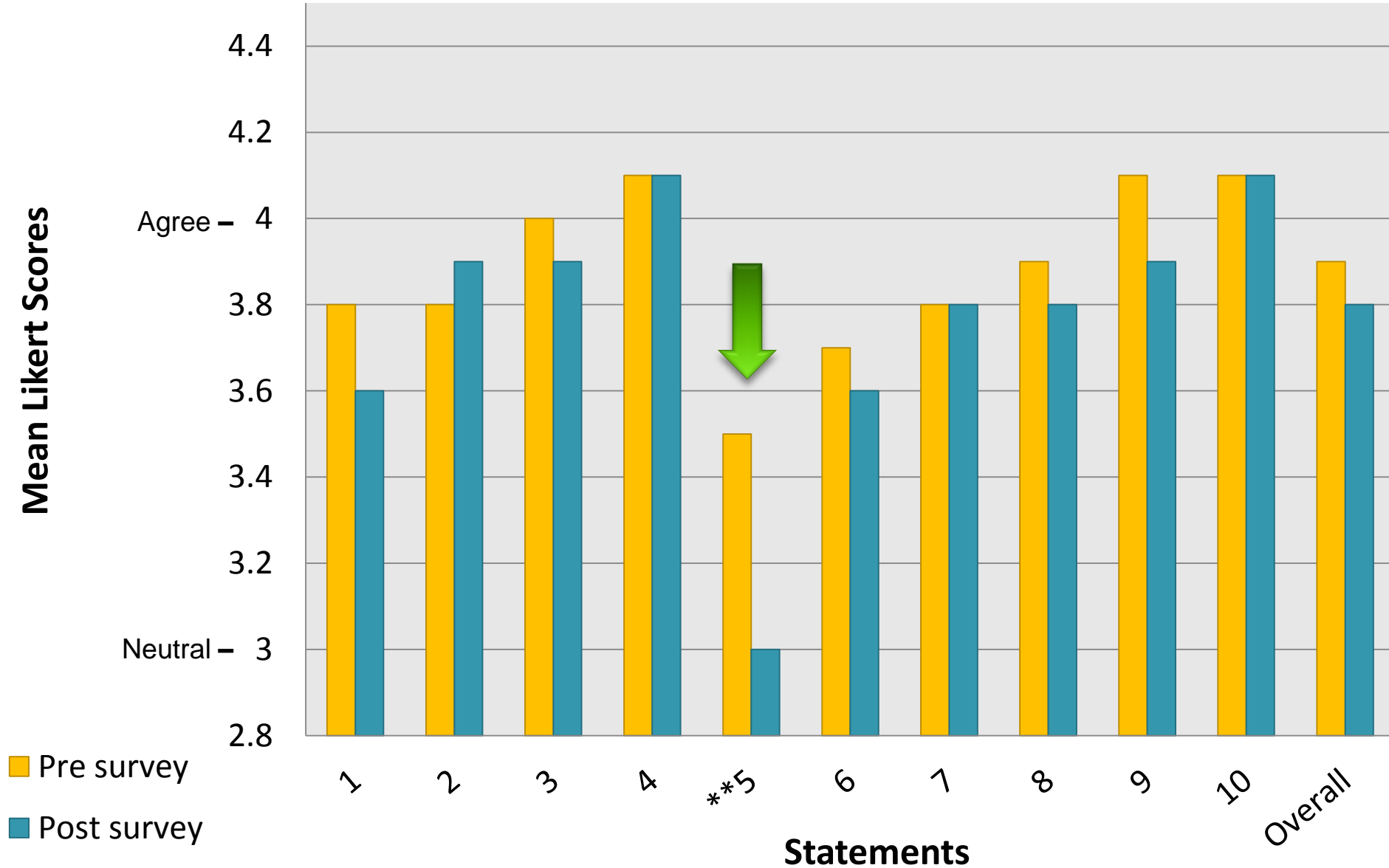


Results

Psychological Empowerment Instrument

- Demonstrates statistically significant increase in agreement with:
 - “I can decide on my own how to go about my own work” ($p=0.02$)
- No overall component improvement

Results: Generic Job Satisfaction Scale (n=17)



Results

Generic Job Satisfaction Scale

- No statistically significant changes to generic satisfaction
- Approaching significance
 - Decrease in agreement “I believe management is concerned about me” ($p=0.06$)

Discussion

- Unable to meet original purpose of improving satisfaction
 - Improvements in other aspects of positive work environments may be needed to improve empowerment and satisfaction
- The improvement in EBP implementation is promising
 - Literature supports the connection of active EBP processes to empowerment and satisfaction
 - Perhaps over time the EBP team will contribute to significant increases in empowerment and satisfaction

Discussion

- Microsystem improvements
 - Clinical nurse-driven practice change as delirium tool was incorporated into ICU assessment



Limitations

- Time limitations
 - Pilot project coincided with MSN program timeline
 - Creating a positive work environment to drive nursing satisfaction is a lengthy, multifactorial process
 - One EBP Team may not be enough to make a significant difference

Limitations

- Possible confounding variables
 - Leadership change, patient acuity, unit census, staff par levels
 - No causative relationship can be determined
- Sample size
 - Small convenience sample
 - Poor response rate to electronic survey

Clinical Implications

- Clinical nurse-driven interventions such as a unit-based EBP Team have the potential to improve nursing outcomes
 - Embrace components of the positive work environment



Clinical Implications

- EBP Teams can improve patient care and outcomes
 - Patients receive optimum evidence-based care
 - Clinical nurses understand best evidence and how to apply it based on clinical expertise and patient preferences
- This intervention can be applied within any microsystem

EBP Team Accomplishments

- **Fall 2015:** Critical Care Committee approved recommended delirium tool
- **Spring 2016:** Electronic version of tool created in Electronic Health Record
- **June 2016:** ICU staff educated on delirium prevention, detection, and management
- **July 2016:** Go-live for electronic delirium tool paired as part of ABCDE bundle

Tips for Future EBP Teams

- Hold more meetings spaced further apart to encourage participation and allow time for EBP skill development
- Devote more time to literature search and critical appraisal
- Continue meetings during and after project implementation
- Involve team in dissemination

EBP Team Continued

- New topic: alarm fatigue
 - Expanded to include sister ICU
 - 8 clinical nurses
- Meet twice per month
 - Followed pilot EBP Team format for developing EBP skills
 - Collected internal pre data
- Intervention
 - Developed and provided education and hands-on training to nurses
 - Created bedside tools
 - Developing education for monitor techs
- Plan for post data collection



Tips for success

- Form a change team
 - Inspiring and sustaining change can be difficult
 - Identify those outside your EBP team that will help support your work
- Remember mentors
 - Have someone well-versed in EBP
 - Leadership support essential
- Know your stakeholders
- Identify barriers/challenges

Recommendations

- An EBP Team is a promising clinical nurse-driven intervention that can benefit any microsystem.
- Further work should continue to look at the impact of EBP Teams on trends of empowerment and satisfaction related to EBP beliefs and implementation.

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