Improving Student Critical Thinking Skills through a Root Cause Analysis (RCA) Pilot Project

Dana Tschannen, PhD, RN
Michelle Aebersold, PhD, RN
University of Michigan, School of Nursing
June 3, 2010

Presentation Overview

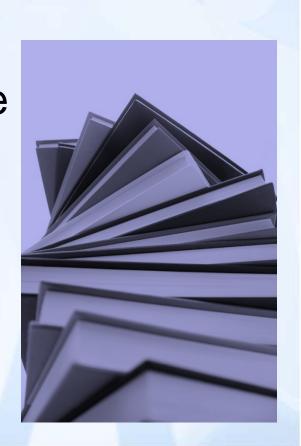


- Introduction (Nursing Education)
- Root cause analysis (RCA) defined
- Overview of Current State
- RCA project outline & A3 tool
- RCA exemplar
- Evaluation
- Refinements for Future Implementation

Nursing Education



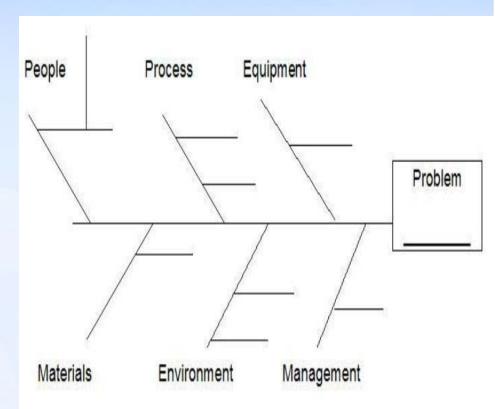
- Equip students with skills necessary to provide optimal patient care
- Essentials of Baccalaureate Education (2009) framework for education in 21st century
- Essentials toolkit: participation in RCA



Root Cause Analysis (RCA)



- Process for determining what, how, & why?
- Identify 'root' causes of a problem to prevent recurrence
- CQI foundation
- TJC mandate for sentinel event followup



Fishbone Diagram Example

Current State



Leadership & Management course

- Inability to ensure certain 'experiences'
- previous RCA case based

Needed elements of critical thinking:

- Defining a problem contextually
- Maintaining an open attitude of inquiry
- Learning to ask circular rather than linear questions
- Examining underlying assumptions and making theoretically based hypotheses
- Reflexively examining the situation prior to drawing conclusions
- Deciding what to believe and do
- Evaluating hypotheses, assumptions, and interventions (Cox, 1998, p.41)

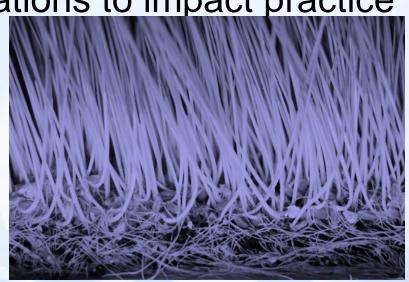
Current State (cont.)



- Purpose: provide a 'real-time' RCA experience for students
 - Develop data plan
 - Identify current status (i.e. data analysis)

- Provide recommendations to impact practice

Partnership with the Health System



RCA Process



- Unit Requirements
 - Identify unit liaison
 - Access to staff, patients, records
- RCA SON team membership
 - SON faculty lead
 - 5 RN students
- Unit specific issue



RCA Process & Summary



- 1. Background overview
 - -initial meeting
 - -weekly SON RCA team meetings
- 2. Data collection and synthesis
 - -multiple methodologies (unit specific)
 - -data plan incorporated all shifts
- 3. Evaluation and Recommendation
 - -Data synthesis
 - -Presentation and A3

A3 Problem solving Tool



- Lean Tool used to take a closer look at work
- Identify areas for improvement
 - Reduce waste
 - Reduce errors
 - Improve quality
- A3 refers to the size paper used with this tool

SUE	TITLE:	By:	Date:
	TARGET COND	ITION	
ACKGROUND			
JRRENT ISSUE			
	COUNTERMEA	SURES	
	IMPLEMENTAT	ION PLAN	
	WHAT V	NHO WHEN	OUTCOME
ROBLEM ANALYSIS			
	<u> </u>		
	COST	COST BEN	EFIT / WASTE RECOGNITION
	TEST		
	FOLLOW UP		

Title: Nursing Pain Reassessment Compliance

<u>lssue:</u>

Noncompliance with comfort care assessment and documentation on pediatric unit

Background:

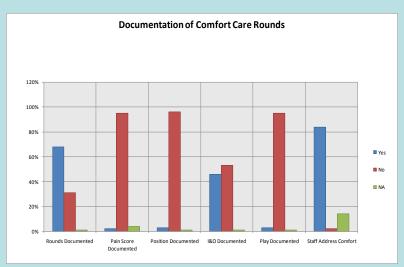
- -A chart audit revealed a trend in decreasing pain reassessment documentation.
- -Discharge surveys reflected that pain was well controlled during hospitalization,

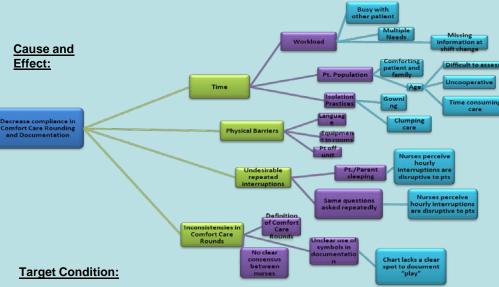
but documentation did not reflect this.

- -Policy states "Pain is assessed on an ongoing basis per patient's condition and response to treatment."
- -High number of patients on unit experience pain, pain assessment is complex in the pediatric population.
- -Documentation of pain assessment and reassessment provides written record of practice.

Current state:

- -Comfort care rounds performed and documented hourly. Rounds include assessment of 4 P's: pain, potty, play, position.
- -Current problems: documentation does not reflect full compliance with practice standard.
- -Chart audit indicated only 68% compliance of documentation of Comfort Rounds, 2% compliance of pain documentation, 3% of position documentation, 46% of documentation of I&O's, 3% play documentation and 83% of staff addressing comfort.





- -Documentation in full compliance
- -Documentation congruent with pt. reports
- -Documentation in timely manner
- -Clear explanation of expectations of RN
- -Consistency throughout unit's documentation

Recommendation Plan:

- -Regular education; what comfort rounds are, importance, suggestion of ways for achieving compliance
- -Create a script for asking questions by June 1st, 2009
- -Education for new hires during orientation
- -Clearly distinguish expectations
- -Initiate a part of the admit assessment for admission nurse to explain to families that comfort rounds will be performed every hour and why its important and not just to "bug" them by June 1st, 2009.
- -Revisions to flow sheet to better reflect importance of Comfort Care ---Rounds (include section for play under position); rough draft completed by June 1st 2009.
- -Develop incentive programs designed to recognize perfect charting (with follow-up chart audits)
- -A script or set variety of ways to ask questions by June 1st 2009.

Next steps:

- -Continue to perform chart audits periodically after implementation (Ex: every 6 months)
- -Survey nurses on their perception of effectiveness and competence
- -Provide continued opportunity for feedback from nurse (Ex: in staff meetings)

RCA Project Evaluation

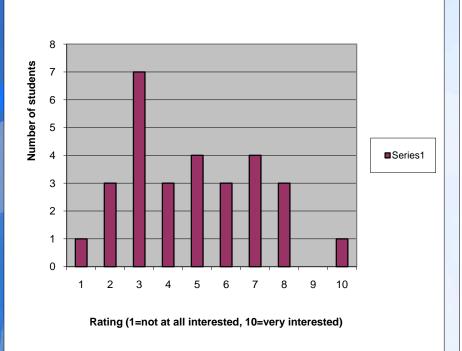


- Unit liaison
 - Overall satisfaction with end product
 - Value of product on unit
 - Expectation of implementing one of the recommendations
 - Willingness to have another RCA team
- Students
 - How interested in project
 - Valuable experience
- 10 point Likert scale

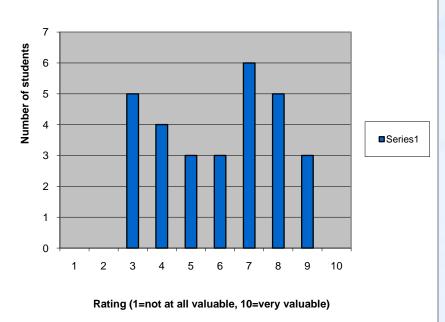


Student Feedback





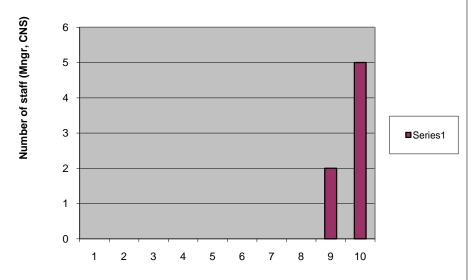
2. Now that you have finished this project how valuable was the experience?



-positive shift upon completion of project

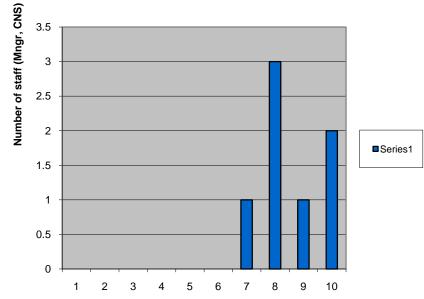
Unit Feedback

1. On a scale of 1 to 10, how satisfied are you with the product (A3/PowerPoint) you received from the students upon completion of the RCA?



Rating (1=not at all satisfied, 10=very satisfied)

2. I anticipate implementing one or more of the recommendations.

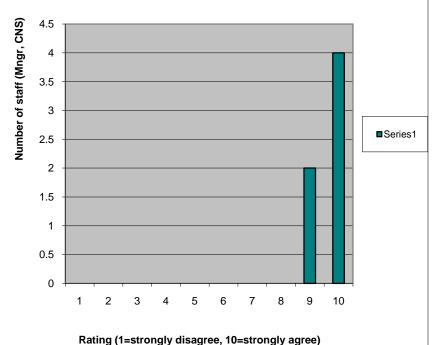


Rating (1=strongly disagree, 10=strongly agree)

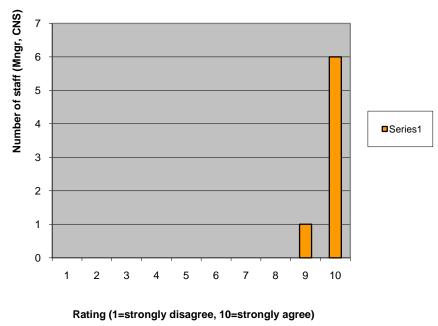


Unit Feedback (cont)

3. This work was valuable to the unit



4. I would be willing to work with another student group like this.



Future Revisions to the Project



- Additional 15 RCA teams have been deployed over the last year
- Continued focus on nurse sensitive indicators or specific unit issue
- Implementation plans also completed for the project
- Positive student feedback

