Conflict of Interest Disclosure

* Conflicts of Interest for ALL listed contributors.
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A conflict of interest is a particular financial or non-financial circumstance that might compromise, or appear to compromise, professional judgment. Anything that fits this should be included. Examples are owning stock in a company whose product is being evaluated, being a consultant or employee of a company whose product is being evaluated, etc.

* Taken in part from "On Being a Scientist: Responsible Conduct in Research". National Academies Press. 1995.
The Road Traveled 2010 to 2013

- Brainstormed
- Literature search
- A lot of reading
- Developing the PICO
- Determining the tools
- Writing the proposal
- Submitting to the IRB
- Hitting a road block; a detour; … and finally Data Collection

Literature Review

- We have now run the searches 3 times, once each year since the start.
- Data covers time frame from 1997 - 2013.
- Confirmed thoughts
  - Pain is a stressor,
  - Pain undertreated over time can affect long term QOL.
  - ICU patients on D/C from ICU, reported pain as undertreated when they were intubated.
- Many scales have been developed to assess the unconscious child and adult patient.
- Three tools float to the top when it comes to assessment of the unconscious intubated adult ICU patient.

Findings of Interest

- Behavior Tools are considered the best alternative when patients are unconscious.
- Physiologic monitors/indicators should not be used as a primary indicator of pain (although more research is now being done in this area)
- ASPMN: supports use of either the Behavior pain scale (BPS) or Critical Care Pain Observation Tool (CPOT) in unconscious patients, ventilated or not ventilated. (2006)
- Faces, Legs, Arms, Cry and Consolability Scale (FLACC), BPS and CPOT all have reliability and validity data to support (some better than others.) All have been tested in an ICU setting in unconscious ventilated patients.
- CPOT can be used in both conscious and unconscious patients ventilated or not; is an 8 point scale.
- BPS is a 12 point scale (BPS may have some inter-related reliability concerns.)
2010 Questions Raised: The Beginning

• Why did the FLACC become a tool for Adults in our VA?
  Implemented in or around 2001
• Are our RNs pleased with the FLACC, do they feel it accurately assesses the unconscious ICU patient? Can we provide a larger study for reliability, validity, and inter-rater reliability testing?
• Should we look at the NVPS? Why? Why Not?
• Can we identify a tool that our ICU nurses find easy to use, provide consistency in assessment?
• Is there one tool which nurses feel positively improves patient outcomes? One tool that the nurses feel that demonstrates that their interventions positively improve patient outcomes (i.e. that lowers pain scores)?
• How can our study improve upon what we have learned? Can we change practice? Do we need to change practice?

Assessment Tools
VAS
NRS
BPS
CPOT
FLACC
Comfort
NVPS
PAIN
PBAT
BPRS
CCPRS
PAIN
Algorithm

FLACC Meets

BPS And The
Critical Care Pain Observation Tool (CPOT)

- **P**: Population: ICU patients at the SAVAHCS ventilated and/or possible unresponsive
- **I**: Intervention: Pain Assessment using an alternate scale
- **C**: Comparison: Current standard of Care the FLACC (Face, Legs, Arms, Cry, Consolability)
- **O**: Outcomes: To identify the best tool for assessing ICU patients who are either unresponsive or ventilated.

Original PICO

Road Block (Spinning our Wheels) and a Detour
PICO

- **P**: Population: ICU patients at the SAVAHCS ventilated and/or possible unresponsive
- **I**: Intervention: Pain Assessment using an alternate scale
- **C**: Comparison: Current standard of Care the FLACC (Face, Legs, Arms, Cry, Consolability)
- **O**: Outcomes: To identify the best liked/easy to use tool for assessing pain in ICU patients who are ventilated and unresponsive.

The Slow Meandering Road: Methods and Data collection

- So... You think you know how to get data??!
- Developed a survey, front back with all 3 tools on it.
- SAVAHCS ICU is busy, we always have someone on a ventilator. But not after we started the survey. We had a couple of days of no vents. No problem, just multiple it out. We'll be done in 3 or 5 weeks. Ha Ha..
- The Methods and Data Collection: As reality set in.

Findings

- 3-5 weeks turned into almost 8 months!
- The goal was to obtain 100 completed paired surveys total using observations with the bedside nurse and EPB team nurse
- Of the 100 pairs, there were 4 extra pairs of forms; a total of 27 pairs that could not be used due to incompletion, incorrect information, or missing forms due to out of sequence numbering.
- Total of 77 pairs or 154 individual surveys were usable
Findings

ICU NURSE tool preference results:
- CPOT – 54 or 70%
- BPS – 15 or 20%
- FLACC – 4 or 5%
- Reported no preference – 4

EPB Team nurse tool preference results:
- CPOT – 64 or 85%
- BPS – 6 or 8%
- FLACC – 3 or 4%
- No preference – 2
- Selected both CPOT & BPS – 2

Veterans Health Administration SAVAHCS

Most common reason for tool preferences by the ICU nurses were:
- CPOT: 65% listed reasons “more detailed/descriptive; accurate; appropriate; more options”
- BPS: the majority of comments related to the behavioral description and pain assessment specific to a ventilator patient
- FLACC: “ease of use; most applicable”

Veterans Health Administration SAVAHCS

Most common reasons for tool preference by the team nurses:
- CPOT: 50% selected the tool because “more descriptive/choices/options”
- 19% - more parameters for ventilators
- BPS – listed reasons “more accurate, concise, appropriate for sedation/wakefulness”
- FLACC – easy to use; familiarity; identifying pain

Veterans Health Administration SAVAHCS
Data Analysis
(Got to love Statistical Data)

• Looking at comparison of Team RNs vs ICU RNs
• First pass was exciting with Excel software
  • Correlations of .58 to .67
  • BUT...
  • Gave data to our statistician
  • Spearman Analysis shows no correlation between RN groups
  • So, an old proverb, experience is what you get when you don't get what you want.
Data Analysis

Conclusions

• The CPOT was the tool best liked by both ICU staff and the EBP team
• The CPOT was by comments the easiest tool to use for assessing pain in ICU patients who are ventilated and unresponsive.
• Statistical Data does not support the nurses preference as any better than the FLACC

Limitations

• Education and buy in to and from the ICU staff could have been improved
• Template/Tool had errors
• Timeliness of data collection got away from the team and may have affected the outcomes
• Could have opened the focus of the patient population a bit broader.
• Did not reach goal of surveys due to incomplete forms
The Open Road

- Presented to the ICU nurses – January 2013
- Presented at the Spring 2013 SAVAHCS EBP Conference
- American Society of Pain Management Nurses (ASPMN) October 2013 (submitted and here we are)
- American Association of Critical Care Nurses (AACN) May 2014 and/or the Society of Critical Care Medicine (SCCM)
- Publish

What is next on this road?

- Good Question
  - PIGS/Critical Care Manager/ICU Electronic Documentation
  - Software is to be installed at SAVAHCS. CPOT is the assessment tool we are looking at – the RN’s prefer it – It is an option with BPS, VAS and FLACC in Pain Assessment.
  - ANCC also has made the change to CPOT or BPS as a national Guideline for ICU pain assessment.
  - OHI! That means a SAVAHCS policy change as the current standard is 0-0 scale
  - May mean a VPA add an alternate option for ICU patients VA wide.
  - Can we do a larger project with other VA’s, we know we have interest.

Bibliography

Bibliography (cont.)


The list of references continues with more articles and studies related to pain management and assessment in critically ill patients.

Veterans Health Administration. SEVHCS

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Credits and Thanks

- The SAVAHCS EBP Committee
- Nurse Executives old and new
- The ICU Tucson Library staff
- The ICU managers and staff
- Dr. Ringenberg who understands the difference between EBP and research
- Dr. Mary Doyle

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Questions