Title:
Pain, Agitation, and Delirium Assessment Tool Used by Nurses in Critical Care: An Integrative Review

Denise Waterfield, MEd, BSN, RN  
College of Nursing, University of Nebraska Medical Center, Kearney, NE, USA

Susan A. Barnason, PhD, RN, APRN-CNS, CEN, CCRN, FAEN, FAHA, FAAN  
College of Nursing, University of Nebraska Medical Center, Lincoln, NE, USA

ACCEPTED

Session Title:
Research Poster Session 1 (Saturday/Sunday, 16 & 17 November)

Slot:
RSC PST1: Sunday, 17 November 2019: 11:45 AM-12:15 PM

Abstract Describes:
Completed Work/Project

Applicable Category:
Clinical, Leaders, Researchers

Keywords:
Assessment, Critical Care and Tools

References:


**Abstract Summary:**

An integrative review of the use of pain, agitation, and delirium assessment tools by critical care nurses with data organized by constructs of the Consolidated Framework for Implementation Research. Further analysis revealed themes conforming to behavioral, normative and control beliefs of the nurse.

**Content Outline:**

I. Background
   A. Clinician-related Barriers to Bundle Implementation
   B. Pain, Agitation/Sedation, and Delirium
   C. Assessment Tools

II. Methods
A. Problem Identification and Purpose
B. Literature Search
III. Results - 26 articles
A. Data Evaluation
B. Data Analysis using Consolidated Framework for Implementation Research
1. Intervention (tool) characteristics
2. Characteristics of individuals (nurses)
3. Inner setting (critical care unit)
IV. Discussion
A. The Reasoned Action Approach
1. Attitudes
2. Perceived Norms
3. Perceived Behavioral Control
B. Limitations and Gaps in Literature
V. Conclusion

Topic Selection:
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Abstract Text:

**Background:** Critical care patient outcomes related to survival, coma, delirium, cognitive impairment, ventilator-days, and readmission significantly improve with implementation of the Society of Critical Care Medicine (SCCM)'s 2018 Pain, Agitation/sedation, Delirium, Immobility, and Sleep (PADIS) guidelines.\(^1\)\(^-\)\(^5\) The ABCDEF bundle (Assess, prevent, and manage pain; Both spontaneous awakening and breathing trials; Choice of Analgesia and Sedation; Delirium assess, prevent, and manage; Early Mobility and Exercise; Family engagement/empowerment; updated from the ABCDE bundle) is an evidence-based approach to implementing the PADIS guidelines\(^5\). Although the bundle includes initiatives that are well-supported by randomized controlled trials and are considered to be best practice, the multifaceted and interprofessional nature of the ABCDEF bundle presents complexities related to coordination, knowledge, role clarity, and motivation among care team members. In a 2017 systematic review, Costa et al. identified 107 barriers\(^6\) to delivery of the bundle related to clinicians as well as protocol, environment, and patients. Clinician-related barriers to bundle implementation included lack of knowledge and awareness, lack of agreement, lack of self-efficacy and confidence, clinician preference for autonomy, perceived workload, staff attitude, and lack of buy-in.
Embedded in the challenges of bundle and guideline implementation are barriers to proper assessment of each of the symptoms of pain, agitation/sedation, and delirium. Each symptom assessment has its own challenges, and the symptoms often synergistically contribute to each other and compound the assessment challenges. The PADIS recommendations and, thus, the ABCDEF bundle, include routine use of valid and reliable tools to monitor symptoms. For pain assessment, the recommended tools are the Numerical Rating Scale (NRS), the Behavioral Pain Scale (BPS), and the Critical-Care Pain Observation Tool (CPOT). For sedation and agitation assessment, the Richmond Agitation-Sedation Scale (RASS) or the Sedation-Agitation Scale (SAS) are recommended. The Confusion Assessment Method for the ICU (CAM-ICU) or the Intensive Care Delirium Screening Checklist (ICDSC) are recommended for delirium assessment.

The standards of care for critical care nurses are characterized by applying evidence-based guidelines such as the use of assessment tools and describing clinical problems using the collected assessment data. Because the causes and interactions of pain, agitation/sedation, and delirium are interrelated, the assessment of all the symptoms often simultaneously is a coordinated effort by critical care nurses.

**Problem and Purpose:** Although robust data exist related to overall SCCM guidelines and related bundle outcomes and implementation strategies, a targeted look at bedside nurses’ combined use of assessment tools is lacking in the current literature. The purpose of this review was to synthesize the peer-reviewed literature on the use and barriers to use of assessment tools for pain, agitation/sedation, and delirium by nurses in adult critical care units from 2013 to mid 2018. The SCCM’s PAD guidelines (the precedent to the 2018 PADIS guidelines) were released in 2013; therefore, the literature since its release was reviewed.

**Methods:** To present a more comprehensive understanding of the use of all of the tools collectively, an integrative review was performed using Whittemore and Knafl’s methodology as the guide. The stages of the integrative review are problem identification, literature search, data evaluation, data analysis, and presentation.

**Results:** The literature search was performed using the databases CINAHL, MEDLINE via PubMed, Embase, Scopus, and Cochrane Review. The initial search yielded 2012 articles. After the removal of duplicates (n=799), 1213 articles were screening by title and abstract. This screening identified 103 articles that required full-text review resulting in 26 articles for further analysis after exclusion criteria were considered. Study designs included 3 quality improvement publications, 9 descriptive studies, 6 quasi-experimental studies, 6 qualitative studies, a correlational study, and a mixed methods study. Data from the articles were organized by domains and constructs of the Consolidated Framework for Implementation Research (CFIR) including intervention (tool) characteristics, characteristics of individuals (nurses), and inner setting (critical care unit).

Whittemore and Knafl describe conclusion drawing as one of the final phases of data analysis that moves from description of patterns (CFIR domains and constructs in this review) to higher levels of abstraction. The future of nursing research requires that level of abstraction to discover data-rich study designs, behavioral motivators, and critical care culture discoveries related to the complexity of critical care patient assessment. Therefore, the data resulting from this review were further abstracted through the lens of The Reasoned Action Approach to find patterns of performing or not performing the given behavior of use of the assessment tools.
Conclusion: The integrative review of literature related to use of recommended assessment tools resulted in categorization of facilitators and barriers by nurse characteristics and the nurses’ perspective of both the tool and the inner setting of the critical care unit. Further analysis revealed themes conforming to behavioral, normative, and control beliefs of the nurse.