Educational Administration: Theory and Practice
2024, 30(4), 527-531
ISSN: 2148-2403
https://kuey.net/

Review Article

Overcoming Barrie to Pain Assessment: Communicating Pain Information with Intubated Older Adults

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Citation Anantkumar H. P et.al (2024) Overcoming Barrie to Pain Assessment: Communicating Pain Information with Intubated Older Adults, *Educational Administration: Theory and Practice*, *30*(4), 527-531, Doi: 10.53555/kuey.v30i4.1498

INTRODUCTION

Elderly patients who use mechanical ventilation may experience speech difficulties similar to those of dysarthria. Suffering people with cognitive impairment who require artificial ventilation are unable to make distressing sounds. Mrs. Jones demonstrates that people with MV are able to communicate. We accept delirium or sedation. Self-reporting of pain is important. Behaviourism-free. Eye pain is measured using NRS, VDS, and FPS-R. This article describes three methods for pain assessment, but they should not be used on individuals who are unconscious or on artificial ventilation. Factors of behaviour and physiology (2006) There are two reliable methods for gauging pain. Measurement of Pain Behaviour and Observational Scale (BPS, Payne et al., 2001). Therapy might be very uncomfortable or completely painless. Research-backed The CPOT was used for patients who need mechanical ventilation. It's difficult to find a spot for CPOT in the intensive care unit.

METHODS:

Between January and November 2022, a 33-bed main ICU at Parul Seva Ashram Hospital was studied.

SAMPLE AND SAMPLING TECHNIQUE:

150 Samples. These findings were made using a convenience sample.

DATA COLLECTION TOOL:

The chart includes the CPOT scale, the research team's translation of the scale, the physiological variables, and the patient data.

ARTICLE INFO

ABSTRACT

By analysing the patient's behaviour during turning, caregivers can objectively estimate discomfort in agitated patients who have problems communicating verbally. CPOT may improve pain management in ventilated patients by guiding therapy with a thorough pain evaluation. During a painful process, if a physiological variable changes, the team is notified. Our findings show the need of giving post-surgical patients extra analgesics before painful treatments.

KEY WORDS: CPOT, PAIN, INTENSIVE CARE PATIENT

INTRODUCTION

Older adults on mechanical ventilation face communication challenges that eerily parallel those faced by patients with dysarthria when trying to convey their suffering. Unwanted voices, which may be the most accurate predictor of pain in older persons with cognitive impairment, are not possible for patients who are mechanically ventilated (MV), making it impossible for them to communicate their suffering. According to Mrs. Jones' story, seniors who are experiencing MV may be able to communicate their discomfort when they are awake and conscious of their surroundings. It is not a concern in this circumstance if mild sedation or perhaps delirium is also felt. We believe that using a patient's own self-report is the most precise method for measuring pain. So, before attempting to apply behavioural techniques.

The Numeric Rating Scale (NRS), the Verbal Descriptor Scale (VDS), and the Faces Pain Scale-Revised (FPS-R) are three standardized visual pain intensity assessment measures that can be used to measure pain in elderly patients who are acutely ill and unable to speak. In this article, we outline three main methods for evaluating pain but this tool is not suitable for the unconscious patient or patient on mechanical ventilator.
The IASP, or the International Association for the Study of Pain describes pain as "a painful sensory and emotional experience." knowledge relating to actual or prospective tissue damage or as though it is such damage" (International Association for the Study of Pain subcommittee in 1979 on Taxonomy.
Clinical guidelines for the assessment of pain in patients who are unable to self-report were released by the Agency for Health Care Policy and Research (AHCPR) in 1992 and suggested using behavioural indicators and physiological measures. Numerous sources have endorsed this suggestion (Puntillo et al., 2002; Shannon and Bucknall, 2003; Herr et al., 2006). However, only two tools have undergone validity and reliability testing for assessing pain in this population, according to a review of the literature. These are the Critical-Care Pain Observation Tool and the Behavioural Pain Scale (BPS, Payen et al., 2001). (CPOT, Gelinas 2004). These instruments have been examined to determine their ability to classify pain while painful and non-painful treatments are being carried out on patients. Their validity has been established through a variety of research investigations.
The CPOT scale was implemented locally for the assessment of pain in patients who were mechanically ventilated and for whom the visual analogue scale (VAS) could not be utilized after a thorough examination of the literature. The CPOT scale was created utilizing.
The relevance of pain assessment in our organization, the CPOT scale's recent inclusion in patient care plans, and the fact that positioning is one of the most common and unpleasant care procedures for ICU patients prompted a team inside the unit to conduct this study with the following objectives:

1. To compare the physiological responses before, during, and after the positioning operation in patients undergoing invasive procedures with the behavioural responses to pain, evaluated on the CPOT scale mechanical ventilator.
2. To explain the anaesthesia and analgesics that were given to patients an hour before and during the positioning process.

METHODS:

Between January 2022 to November 2022 this prospective descriptive study was conducted on a 33-bed main ICU from Parul Seva Ashram Hospital.

SAMPLE:

A total of 150 observations were examined for instances of pain brought on by patient position changes. These findings were made using a convenience sample.
Some of the 96 intubated and mechanically ventilated patients who were both conscious and unconscious. Patients who were taking muscle relaxants, had motor or sensitivity problems, or had equipment that allowed for patient-controlled analgesia were excluded.
Patients having hemodynamic instability or respiratory failure at the time of observation were also eliminated.

DATA COLLECTION TOOL:

The research team's translation of the CPOT scale, the physiological variables, and the patient data were all included in a chart

• Patient information, including age, gender, medical or surgical procedures, the severity of the patient's sickness at the time of admission as determined by the Simplified Acute Physiology Score 3 (SAPS 3), and the Ramsay scale assessment of sedative levels prior to procedures.
• The CPOT scale, which rates four behavioural signs on a scale of 0 to 2: facial expression, body movement, muscle tension, and compliance with the ventilator/vocalization. The total score can range from 0 to 8 points (Table 1). Because all of the patients were receiving endotracheal intubation and mechanical ventilation, compliance with the ventilator indicator was used in this study.
• The CPOT scale was described as having the following measurement qualities by Gelinas and Johnston (2007): high reliability (080-093); high discrimination validity as demonstrated by the rise in CPOT scores during the turning procedure, while they remained stable during the non-invasive measurement of arterial pressure; and the validity of the criterion obtained on finding correlations between the CPOT scores and another scale that measured pain intensity. A CPOT threshold score of >3 produced a sensitivity and specificity of 66 % and 83 %, respectively.
• Physiological variables, such as mean arterial pressure (MAP), heart rate (HR), respiratory rate (RR), arterial oxygen saturation (SpO2), and whether or not the patient is perspiring, as these are the indicators that are typically influenced by pain, according to the revised bibliography (Kwekkebbom and Herr, 2001; Odhner et al., 2003; Gelinas'et al., 2004; Herr et al., 2006; Coyer The amount of analgesia/sedation given to patients one hour before the surgery, as well as if they had further administered analgesics throughout the procedure were also taken into consideration.

Indicator	Description	Score	
Facial expressions	No muscle tension observed	Relaxed, neutral	0
	Presence of frowning, brow lowering, orbit tightening and levator contraction or any other change (e.g. opening eyes or tearing during nociceptive procedures)	Tense	1
	All previous facial movements plus eyelid tightly closed (the patient may present with mouth open or biting the endotracheal tube)	Grimacing	2
Body movements	Does not move at all (doesn't necessarily mean absence of pain) or normal position (movements not aimed toward the pain site or not made for the purpose of protection)	Absence of movements or normal position	0
	Slow, cautious movements, touching or rubbing the pain site, seeking attention through movements	Protection	1
	Pulling tube, attempting to sit up, moving limbs/thrashing, not following commands, striking at staff, trying to climb out of bed	Restlessness/Agitation	2
Muscle tension	No resistance to passive movements	Relaxed	0
Evaluation by passive flexion and extension of upper limbs when patient is at rest or evaluation when patient is being turned	Resistance to passive movements	Tense, rigid	1
	Strong resistance to passive movements or incapacity to complete them	Very tense or rigid	2
Compliance with the ventilator (intubated patients)	Alarms not activated, easy ventilation	Tolerating ventilator or movement	0
	Coughing, alarms may be activated but stop spontaneously	Coughing but tolerating	1
OR	Asynchrony: blocking ventilation, alarms frequently activated	Fighting ventilator	2
Vocalization (extubated patients)	Talking in normal tone or no sound	Talking in normal tone or no sound	0
	Sighing, moaning	Sighing, moaning	1
	Crying out, sobbing	Crying out, sobbing	2
Total			0–8

Gélinas C, Fillion L, Puntillo KA, et al. Validation of the critical-care pain observation tool in adult patients. Am J Crit Care. 2006; 15(4): 420–427, indexed in Pubmed: 16823021. Table 1. Available at: http://ajcc.aacnjournals.org/content/15/4/420.short
CPOT Polish Translation: 16.10.2016, Katarzyna Kotfis MD, PhD

The data was gathered by research team members.

The tool's first 88 observations were made by two people simultaneously to gauge its dependability group members. As in the research by Gelinas et al., the Ramsay scale was used to gauge the patient's state of sedation before to each observation (2006). Patients were categorized as being conscious or unconscious depending on whether their score was 1 through 4, 5, or 6. The CPOT scale was used at each of the three phases of each observation—one minute prior to (the baseline scenario), during, and ten minutes after the surgery. At each time point, the physiological variables MAP, HR, RR, SpO2, and if sweating was present were recorded.

ETHICAL APPROVAL:

The hospital ethics committee approved the study protocol, and because this observational study did not require any deviation from routine medical practice, informed consent was not required.

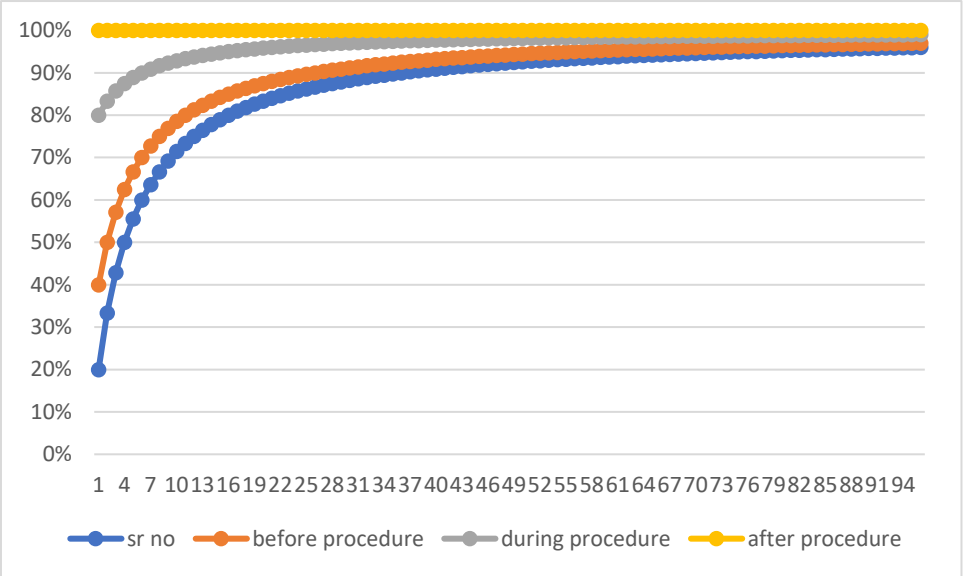
RESULTS:

For the qualitative variables, we utilized frequency measures, and for the continuous variables, we used central and dispersion measures. This was the first step in our analysis of the data. To compare the CPOT scores and the physiological variables before and after the procedure, during and after the process, and before and after the procedure, paired samples were employed for inferential statistics in the form of a t-test. Additionally, the t-test was applied for independent samples comparing awake and unconscious patients as well as medical and surgical patients. The Kappa (k) index was used to assess the validity of the CPOT scale. SPSS 15 was used, the Statistical Package for Social Sciences. P 005 was the significance level that was employed.

There were 96 individuals who underwent a total of 150 observations of the positioning process, with a mean age of 62 and a standard deviation (SD) of 1438. Of these patients, 48(50%) were men and 45 (43%) were women (minimum 22–maximum 89). Surgery was the reason for admission to the ICU for 75 patients (78.13%)

and medicine for 21 patients (21.87%). The average SAPS 3 score at admission was 43.97 (standard deviation: 17.81; range: 16–104).

Patients endured varying numbers of observations depending on how long they were intubated. Three or more observations each day of the maximum samples were made. Prior to the positioning process, the total mean score on the CPOT scale was 026 (SD = 064; minimum 0-maximum 4); during the procedure, it was 190 (SD: 1365; minimum 0-maximum 6); and after the procedure, it was 010 (SD = 035; minimum 0-maximum 4). Compare the mean CPOT scores and each of its markers throughout the three observation times in the table below. The results of comparing the scores obtained before, during, and after the process demonstrate statistically significant variations, with the values increasing as positioning is done. We observe some statistically significant changes between the scores before and after the surgery since the values dropped 8 minutes after positioning. There were no statistically significant differences between the CPOT scale scores of the conscious and unconscious patients at any of the three procedure times, despite the fact that the unconscious patients' mean scores were lower.



With a score of 1-2 on each of the CPOT scale markers for each of the three study periods

Higher scores were reported in surgical patients (n = 55) than in medical patients (n = 41) when the CPOT scores during the procedure were compared with the reason for admission, however the difference was not statistically significant (x = 202 x = 180; t = 1400, p = 0162).

The data collected before and after the procedure showed statistically significant differences since turning the patient resulted in an increase in MAP, HR, and RR and a minor decrease in SpO2. Significant variations were also discovered when comparing the data collected before and after the surgery, with the SpO2 slightly increasing and the other parameters declining 08 minutes later. The only difference between the baseline data and those from 10 minutes after turning, however, was a modest decrease in RR.

CANCLUSIONS:

We can draw the conclusion that caregivers can objectively assess pain in distressed patients who have trouble communicating verbally by observing the patient's behavior during the turning produced. By offering a systematic approach to pain assessment to guide therapies, the CPOT may enhance the management of pain in ventilated patients. Additionally, when a physiological variable changes during a painful procedure, the team is informed that the patient might be in discomfort. Our findings further demonstrate the importance of providing extra analgesics before painful procedures, particularly in post-surgical patients.

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