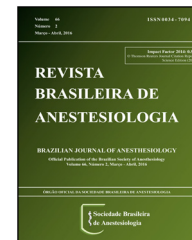




REVISTA BRASILEIRA DE ANESTESIOLOGIA

Publicação Oficial da Sociedade Brasileira de Anestesiologia
www.sba.com.br



SCIENTIFIC ARTICLE

Validation of the Brazilian version of Behavioral Pain Scale in adult sedated and mechanically ventilated patients

Isabela Freire Azevedo-Santos^a, Iura Gonzalez Nogueira Alves^a,
Manoel Luiz de Cerqueira Neto^c, Daniel Badauê-Passos^{a,b},
Valter Joviniano Santana-Filho^{a,b,c}, Josimari Melo DeSantana^{a,b,c,*}

^a Programa de Pós-Graduação em Ciências da Saúde, Universidade Federal de Sergipe (UFS), Aracaju, SE, Brazil

^b Programa de Pós-Graduação em Psicologia, Universidade Federal de Sergipe (UFS), Aracaju, SE, Brazil

^c Departamento de Fisioterapia, Universidade Federal de Sergipe (UFS), Aracaju, SE, Brazil

Received 15 October 2015; accepted 23 November 2015

KEYWORDS

Validation studies
(publication types);
Pain measurement;
Intensive care units;
Behavioral Pain Scale;
Brazilian BPS

Abstract

Background and objectives: The Behavioral Pain Scale is a pain assessment tool for uncommunicative and sedated Intensive Care Unit patients. The lack of a Brazilian scale for pain assessment in adults mechanically ventilated justifies the relevance of this study that aimed to validate the Brazilian version of Behavioral Pain Scale as well as to correlate its scores with the records of physiological parameters, sedation level and severity of disease.

Methods: Twenty-five Intensive Care Unit adult patients were included in this study. The Brazilian Behavioral Pain Scale version (previously translated and culturally adapted) and the recording of physiological parameters were performed by two investigators simultaneously during rest, during eye cleaning (non-painful stimulus) and during endotracheal suctioning (painful stimulus).

Results: High values of responsiveness coefficient (coefficient = 3.22) were observed. The Cronbach's alpha of total Behavioral Pain Scale score at eye cleaning and endotracheal suctioning was 0.8. The intraclass correlation coefficient of total Behavioral Pain Scale score was ≥ 0.8 at eye cleaning and endotracheal suctioning. There was a significant highest Behavioral Pain Scale score during application of painful procedure when compared with rest period ($p \leq 0.0001$). However, no correlations were observed between pain and hemodynamic parameters, sedation level, and severity of disease.

* Corresponding author.

E-mail: desantana@pq.cnpq.br (J.M. DeSantana).

<http://dx.doi.org/10.1016/j.bjane.2015.11.003>

0104-0014/© 2016 Sociedade Brasileira de Anestesiologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article in press as: Azevedo-Santos IF, et al. Validation of the Brazilian version of Behavioral Pain Scale in adult sedated and mechanically ventilated patients. Rev Bras Anesthesiol. 2016. <http://dx.doi.org/10.1016/j.bjane.2015.11.003>

PALAVRAS-CHAVE

Estudos de validação (tipos de publicação); Mensuração da dor; Unidades de terapia intensiva; Escala de Dor Comportamental; EDC brasileira

Conclusions: This pioneer validation study of Brazilian Behavioral Pain Scale exhibits satisfactory index of internal consistency, interrater reliability, responsiveness and validity. Therefore, the Brazilian Behavioral Pain Scale version was considered a valid instrument for being used in adult sedated and mechanically ventilated patients in Brazil.

© 2016 Sociedade Brasileira de Anestesiologia. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Validação da versão brasileira da Escala Comportamental de Dor (Behavioral Pain Scale) em adultos sedados e sob ventilação mecânica

Resumo

Justificativa e objetivos: A Escala Comportamental de Dor (*Behavioral Pain Scale*) é uma ferramenta de avaliação da dor para pacientes não-comunicativos e sedados em unidade de tratamento intensivo (UTI). A falta de uma escala brasileira para a avaliação da dor em adultos sob ventilação mecânica justifica a relevância deste estudo que teve por objetivo validar a versão brasileira da Escala Comportamental de Dor (ECD), bem como correlacionar seus escores com os registros de parâmetros fisiológicos, nível de sedação e gravidade da doença.

Métodos: Vinte e cinco pacientes adultos internados em UTI foram incluídos neste estudo. A versão brasileira da ECD (previamente traduzida e adaptada culturalmente) e os registros dos parâmetros fisiológicos foram realizados simultaneamente por dois avaliadores durante o repouso, durante a limpeza dos olhos (estímulo não doloroso) e durante a aspiração endotraqueal (estímulo doloroso).

Resultados: Valores elevados do coeficiente de responsividade (coeficiente = 3,22) foram observados. O coeficiente alfa de Cronbach do escore total da ECD durante a limpeza dos olhos e aspiração endotraqueal foi de 0,8. O coeficiente de correlação intraclass do escore total da ECD foi $\geq 0,8$ durante a limpeza dos olhos e aspiração endotraqueal. Houve um escore significativamente mais alto na ECD durante a aplicação do estímulo doloroso em comparação com o período de descanso ($p \leq 0,0001$). No entanto, não foram observadas correlações entre dor e parâmetros hemodinâmicos, nível de sedação e gravidade da doença.

Conclusões: Este estudo pioneiro de validação da ECD brasileira apresenta índices satisfatórios de consistência interna, confiabilidade entre avaliadores, Responsividade e validade. Portanto, a versão da ECD brasileira foi considerada um instrumento válido para ser usado em pacientes adultos sedados e ventilados mecanicamente no Brasil.

© 2016 Sociedade Brasileira de Anestesiologia. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob a licença de CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Critically ill patients frequently experience pain and discomfort during Intensive Care Unit (ICU) stay. ICUs are specialized centers where subjects are exposed to different factors which causes acute pain including routine procedures,¹⁻⁵ such as endotracheal suctioning, turning, peripheral and central intravenous puncturing.⁶ Thus, pain assessment and treatment in mechanically ventilated ICU patients have been considered important and studied in last two decades.⁷

The Society of Intensive Care Medicine recommends that pain should be routinely monitored in all adult ICU patients.⁸ Patient's self-reports of pain, physiological parameters and scales based on typical behaviors constitute available methods in the assessment of pain. However, critically ill patients are often unable to effectively communicate due to severe illness, mechanical ventilation, administration of sedatives

and analgesics or a decreased level of consciousness.^{4,9,10} On the other hand, patients may be evaluated by physiological parameters and through the use of scales based on typical behaviors. However, physiological parameters, such as blood pressure, heart rate, peripheral oxygen saturation and respiratory rate appear to be less valid for pain assessment in ICU patients due to underlying disease and treatment with inotropes and vasopressor medicines.¹¹⁻¹³ Therefore, the Society of Intensive Care Medicine advises the use of pain assessment tools that focus mainly on behavioral indicators of pain.⁸

In this context, in order to quantify pain in mechanically ventilated patients, Behavioral Pain Scale (BPS) was firstly validated in English.⁶ The BPS was translated in four languages^{6,14-16} and validated just in two of them.^{6,15} Several studies have shown that BPS is reliable and responsive.^{10,17-25} Despite the importance of pain assessment in ICU non-verbalizing patients, there is a lack of Brazilian studies on

Download English Version:

<https://daneshyari.com/en/article/8612136>

Download Persian Version:

<https://daneshyari.com/article/8612136>

[Daneshyari.com](https://daneshyari.com)