

The Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC) Brief

The Pain Assessment Scale for Seniors with Severe Dementia (PACSLAC) developed by a Canadian team, is a tool for the familiar caregiver to observe and assess both common and subtle pain behaviors. The tool is a checklist with four subscales and a total of 60 items: Facial expressions (13 items), Activity/body movements (20 items), Social/personality/mood (12 items) and Physiological indicators/eating and sleeping changes/vocal behaviors (15 items). Each item is scored on a present/absent dichotomous scale. Subscale scores are summed to arrive at a total score ranging from 0 to 60. However, no interpretation of the total score is currently available.

Simple instructions on how to administer and score the tool are clearly described on the tool form. *Preliminary cut-offs for determining pain presence are determined for the PACSLAC. Although the original PACSLAC includes 60 items, the tool requires a limited amount of time to administer, indicating that the tool is potentially useful in everyday clinical practice. Testing of the PACSLAC-D (Dutch Language), the shorter 24 item scale, suggests the tool is user friendly requiring a short time for training (30 minutes), has an established cut-off to facilitate score interpretation, and can be completed in a few minutes. Preliminary evidence of clinical utility and normative data for scoring is provided, although further validation with larger and more diverse is needed.*

The PACSLAC was tested in a sample of 40 RN/resident dyads in which the nurse recalled a resident that had been under his/her care for at least six months and who experienced pain. Nurses were 44 years on average with an average of 19 years experience. The 40 corresponding residents were 85 years on average, 30 females/10 males, 33 had a diagnosis of dementia and 34 had a diagnosis associated with pain. *Follow-up studies evaluated the PACSLAC and PACSLAC D (Dutch language) prospectively in NH settings with samples of patients with dementia. Methods for evaluating cognitive status are appropriate and indicate severe impairment in most studies. Age and gender representation is appropriate. There is no information in any of the studies regarding racial/ethnic diversity, except testing in Canadians and Dutch. Using a minimum requirement of 5 subjects per item for the purposes of this review, the sample sizes for testing the PACSLAC and the PACSLAC-D (Dutch Language) are small. Additionally, few subjects in the existing studies had moderate or severe pain impacting evaluation of the tool usefulness across the full range of scoring. Additional evaluation in larger English-speaking samples with increased diversity are needed.*

Reliability

- Internal consistency was good based on four remembered events: two painful events, one distressing (but not pain-related) and one calm event. The methodology of using remembered events is appropriate in preliminary stages of tool development, but is subject to recall bias. *Follow-up studies 3 and 4 were able to duplicate good internal consistencies for both total PACSLAC and PACSLAC D scales.*
- *Studies 3, 5 and 6 found generally high interrater reliabilities for both versions, total scales and sub scales.*

- *Study 3 had strong intrarater reliability between bedside and video scorings but the time interval is not specified.*
- *Additional testing in diverse samples, including those with greater range of pain severity, is recommended.*

Validity

- Discriminant validity was evaluated based on retrospective recall of painful events by the nurse for four events as indicated above. The total PACSLAC score was able to discriminate among painful, calm, and non-pain related distress events ($p < .001$). Subscales: Facial expressions, Activity/rocking movement and Physiological indicators/eating and sleeping changes/vocal behaviors discriminated among painful, distressing and calm events ($p < .001$) and subscale Social/personality/mood discriminated between pain and calm events but not between pain and the distress events.
- Criterion related validity was moderate using Global Pain Intensity Ratings of the nurses' perception of the patient's pain as the "gold standard."
- *Zwakhalen translated the PACSLAC into Dutch and used principal component analysis with Oblimin rotation to reduce the 60-item tool into a shortened version with only 24 items. The reduced version of the scale strongly correlated with the long 60-item version of the scale with Pearson's r of 0.945. It is important to note that the PACSLAC-D (Dutch Language) does not contain items that require prior knowledge of the patient and thus is a direct observation tool only. Both the PACSLAC and PACSLAC-D (Dutch Language) have been validated in Dutch. Further study of the PACSLAC is warranted to determine if frequency of item use and a similar factor structure and reduction holds up in English and other languages and populations.*
- *Further evaluation in studies 2, 3 and 5 provide support for congruent and discriminant validity of the PACSLAC, as well as preliminary support for cut-off points and sensitivity and specificity of the shorter PACSLAC-D (Dutch Language). Additional study in larger samples, with samples experiencing greater pain severity, and to evaluate tool sensitivity are needed.*

Summary

The PACSLAC is a potentially clinically useful behavior checklist that appears simple to use for assessing and monitoring changes in persons with dementia and diverse presentations of pain-related behavior. The tool is comprehensive and addresses pertinent indicators noted in the literature and AGS Guideline. *Prospective evaluation has added to the tool's reliability and validity, as well as factor analysis to determine the most efficient and useful indicator set for clinical use. However, the revised PACSLAC-D (Dutch Language) no longer contains items that are based on knowledge of the patient and this may under-recognize pain in patients who demonstrate less obvious indicators such as changes in activity or behavior. Because of this major revision in the tool, the PACSLAC and PACSLAC-D (Dutch Language) psychometric evaluations should be considered independently. Preliminary normative data and cut-offs are provided but require further validation in larger, more diverse samples. Additional factor analysis in English-speaking samples, other diverse samples, and in patients with increased levels of pain severity is needed, as is determination of tool sensitivity in detecting treatment effects.*

Source of Evidence

Fuchs-Lacelle, S. & Hadjistavropoulos, T. (2004). Development and preliminary validation of the Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC). *Pain Management Nursing*, 5(2).

Fuchs-Lacelle, S. & Hadjistavropoulos, T. (2005). A checklist for pain assessment in LTC. PACSLAC: Pain Assessment Checklist for Seniors with Limited Ability to Communicate. *Canadian Nursing Home*, 16(4), 4-7.

Zwakhaleh, S., Hamers, J. & Berger, M. (2006). The psychometric quality and clinical usefulness of three pain assessment tools for elderly people dementia. *Pain*, 126(1-3), 210-220.

Zwakhaleh, S., Hamers, J. & Berger, M. (2007). Improving the clinical usefulness of a behavioral pain scale for older people with dementia. *Journal of Advanced Nursing*, 58(5), 493-502.

Zwakhaleh, S., Koopmans, R., Geels, P., Berger, M. & Hamers, J. (2008) The prevalence of pain in nursing home residents with dementia measured using an observational pain scale. *European Journal of Pain*, xx, xxxx. (in press).

Fuchs-Lacelle, S., Hadjistavropoulos, T. & Lix, L. (in press). Pain assessment as intervention: A study of older adults with severe dementia. *Clinical Journal of Pain*, xx, xxx. (in press)

The authors recommend additional articles pertaining to a French language version of the PACSLAC (Dr. Thomas Hadjistavropoulos, personal communication, July 2008):

Aubin, M., Verreault, R., Savoie, M., LeMay, S., Hadjistavropoulos, T., Fillion, L., Beaulieu, M., Viens, C., Bergeron, R., Vézina, L., Misson, L. & Fuchs-Lacelle, S. (2008). Validité et utilité clinique d'une grille d'observation (PACSLAC-F) pour évaluer la douleur chez des aînés atteints de démence vivant en milieu de soins de longue durée. *Canadian Journal on Aging/La revue canadienne du vieillissement*, 27, 45-55. [DISCUSSION OF PACSLAC-F]

Aubin, M., Giguère, A., Hadjistavropoulos, T. & Verreault, R. (2007). Evaluation systématique des instruments pour mesurer la douleur chez les personnes âgées ayant des capacités réduites à communiquer. *Pain Research and Management*, 12, 195-203. [Systematic review, using a grid of the PACSLAC in comparison to all other tools that we could find]

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