Elderly Pain Caring Assessment (EPCA)

Description: The EPCA-2 was developed by a French team of physicians in long-term care facilities affiliated with University hospitals to provide a reliable and valid tool with high clinical utility to both observe and rate the intensity of both persistent and acute pain in non-verbally communicating older adults. The tool relies on caregiver familiarity with the patient to report changes in behavior. If the older adult is unknown to the provider, the author suggest that providers care for the adult for at least 3 successive days to recognize normative behaviors. The EPCA-2 is hypothesized to measure pain intensity through doctors', nurses' and other caregivers' proxy ratings of the presence and qualitative intensity of identified pain behaviors.

Developed and refined in four stages, the final 8-item scale is comprised of 5 of 6 categories of non-verbal pain behaviors in the AGS Persistent Pain Guidelines: facial expression, verbalizations/vocalizations, body language, changes in activity patterns or routines, and changes in interpersonal interactions. These items are observed in two dimensions: prior to caregiving and during caregiving. The proposed hierarchies of pain behaviors according to pain intensity appear logical, but no conceptual basis for this ordering is offered by the authors.

Psychometric testing: The first version of the EPCA was developed based on the results of a survey of 48 experienced nurses and caregivers and of a review of the literature. The current version was tested in a large sample of non-verbal older adults (N=340). Face validity was achieved by having raters determine whether the tool was appropriate to measure pain in non-communicating older adults and its overall language clarity and formatting. Content validity reflects the particular practice setting of both

patients and healthcare providers in French long-term care facilities affiliated with University hospitals. Content validity was not established by an independent external panel of experts as 3 of 6 experts are co-authors of the study, but factor analysis confirmed the two-dimensional aspects of pain in this setting. Factor analysis confirmed the 2 factors of rest and caregiving pain and explained nearly 57% of the variation in EPCA scores.

Internal consistency was established for the global scale and for each subscale separately. Cronbach's α (0.79) were well within the recommended range for group comparison. Interrater reliability calculated with intra-class correlation coefficient at the 95% confidence interval was very good, ranking close to 1 with range 0.85-0.92 for all groups of raters. The overall ICC= 0.877. Tool developers bring strong evidence for good convergent and discriminant validity and responsiveness of the EPCA-2. The tool was strongly responsive to analgesic treatment.

Languages and Settings: The scale was developed in French but translated into English and then back-translated by two independent translators for publication purposes. Adults 65 and older were observed from three institutionalized centers.

Feasibility/Clinical Utility: Pilot study measured approximate time of 15 minutes to complete, including 5 minutes observation before and 5 minutes after caregiving and 5 minutes to score. A manual explaining the rating of each item and precautions for using the EPCA2 in day-to-day practice is available from the authors. Training time for proper use of the EPCA-2 was not reported but was reportedly easily incorporated in clinical practice. However, the EPCA-2 requires intensive observation by the caregiver, some

suggest it is more suited for research purposes rather than clinical practice (Corbett et al., 2012).

Scoring and Interpretation: Four of the eight items are rated after 5 min of observation of the patient before caregiving and include: “facial expression, spontaneous posture adopted at rest (trying to find a comfortable position), movements of the patient out of bed and/or in bed, interaction of all kinds with other people”. The remaining four items are assess pain behaviors during caregiving activities and these behaviors rated immediately following caregiving: “anxious anticipation of caregiver intervention, reactions during caregiver intervention, reactions of the patient when painful parts of the body nursed, and complaints voiced in the course of caregiving” (Morello et al., 2007, p. 89). Each behavior’s intensity is rated on a 5-point scale, ranging from 0 (no pain) to 4 (extremely intense pain). A total score is calculated by adding the scores of all 8 items.

Summary/Critique: The EPCA-2 was developed using standard methods of item generation and conceptual validation. Tool evaluation was conducted in France on persons with appropriate age and gender distribution but no ethnic diversity or standardized assessment of cognitive impairment. Unlike some other pain behavior tools, this tool not only assesses presence of pain but the perceived pain intensity of each behavior. To date, only one study has been published; therefore, its practical use globally in older adults unable to communicate verbally is unknown. Moreover the raters in this study were “highly experienced” (Morrello et al., 2007; p. 93) which may bias ratings and show an inaccurate picture of the tool in practice by the average nurse or physician rater.

The tool does require some training and time for proper administration and has not been validated in English-speaking sample populations. This limits its clinical utility in the US. Current psychometrics support the need for further evaluation in similar and diverse settings. The authors are finding that caregivers who are familiar with the patient find the EPCA less time-consuming to administer than measured in initial feasibility studies (Dr. Remy Morello, personal communication, July 2008). No recommendation for its use can be given at this time.

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