The Abbey Pain Scale (The Abbey) Brief

The Abbey Pain Scale (The Abbey) is an Australian tool developed to measure severity of pain in people with late-stage dementia that was efficient, effective and able to be used by a variety of care staff. Although there is no presentation of the conceptual basis for the tool, it is apparent that *this informant-based* tool attempts to measure "acute pain", "chronic pain" and "acute on chronic," in the same tool.

The tool includes six items: vocalization, facial expression, change in body language, behavioral change, physiological change, and physical change. Each item is leveled on a four point scale for severity of the behavior (Absent: 0; Mild: 1; Moderate: 2; Severe: 3) with total score ranging from 0 to 18. The total score is then interpreted as severity of pain: No pain: 0-2; Mild: 3-7; Moderate: 8-13; Severe: 14+. The rater is asked to indicate which type of pain the older adult has: chronic, acute or acute on chronic.

Preliminary studies give no evidence that informants can reliably rate these levels of pain using this tool.

There are a few limited instructions on the tool schema. Instructions for using the Abbey Pain Scale are presented on a poster. Nurses are asked to use the tool when pain is suspected. It is not specifically designed to be a part or routine daily assessment. The tool apparently takes one minute to score, although there are no data to support this. *A follow-up study does not provide any further supportive information on the feasibility, administration or clinical utility of the Abbey. With only 50% of care providers reporting that the scale was good to judge or observe pain indicators, little additional support is provided.*

In study 1, the tool was evaluated in 24 *Australian* long term care facilities with a sample of 61 older adults with late-stage for a total of 236 pain episodes. *Assessment of presence and degree of cognitive impairment and pain in study subjects was not standardized. Age and gender distribution are appropriate but there is no mention of ethnic/racial diversity in either study. Study 2 was conducted in 17 Belgian nursing homes with 185 caregivers and 157 residents. The tool has not been tested in the United States.*

Using 5 subjects per tool item as a minimum requirement for this review, a minimum sample size of 60 subjects (12 items x 5 subjects) and 30 subjects (6 items x 5 subjects) in stage 1 and stage II respectively would be needed. Thus, with 52 subjects in stage I this sample is not sufficient for regression analysis; however, with 61 subjects in stage II the sample is sufficient for tool evaluation. No additional tool item evaluation study was conducted in Study 2.

Reliability
- Internal consistency reliabilities for pre- and post intervention are acceptable but it is unclear what data were used in the analysis (e.g. pain episode, resident or mean score).
- Interrater reliability between two staff members pre and post intervention was low particularly for post intervention evaluation.
- No test-retest reliability is available.

Study 2 did not add further information on reliability of the tool. Reliability, therefore, has not been adequately established based on available information.

Validity
- Concurrent validity of the scale was evaluated against the holistic impression of pain as assessed by the nurse: Gamma: 0.586 (p<.001).
- Predictive validity was assessed by change in mean pain score pre-intervention: 9.02 (± .48), post intervention: 4.21 (± .41). A paired t-test was statistically significant (p<0.001). However, it is unclear what unit of analysis was used for examining pre-post score changes (e.g. pain episode, resident or mean score).

Summary
Clinicians considering this tool need to be aware of conceptual issues. There is conceptual blurring between acute and chronic pain with no discussion in the paper on distinguishing characteristics of the pain types. Moreover, there is blurring between pain behaviors and pain etiology. Although the tool does include at least one cue from each of the 6 categories of non-verbal pain behavior indicators from the AGS Guideline on Persistent Pain in Older Adults, the inclusion of physiological indicators is not supported in the literature on chronic pain. Thus, an individual with chronic pain being scored on this tool may lose 3 points towards the overall severity score. Moreover, the ability of health care providers to determine severity of pain from behavioral indicators has not been established. Tool reliability is equivocal with current data available. Validity testing based on nurse judgment of pain severity is not substantiated in the literature, particularly, as in this case, without evidence supporting the expertise of the raters. Thus tool revision and additional testing in controlled circumstances are recommended before using this tool in clinical practice.

<div align="center">Source of evidence</div>

Abbey, J.A., Piller, N., DeBellis, A, Esterman, A., Parker, D., Giles, L. & Lowcay, B. (2004). The Abbey Pain Scale. A 1-minute numerical indicator for people with late-stage dementia. *International Journal of Palliative Nursing, 10*(1), 6-13.

Van Iersel, T., Timmerman, D. & Mullie, A. (2006). Introduction of a pain scale for palliative care patients with cognitive impairment. *International Journal of Palliative Nursing, 12*(2), 54-59.

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