Use of Pain-Behavioral Assessment Tools in the Nursing Home
Expert Consensus Recommendations for Practice

ABSTRACT

Many tools are available for the assessment of pain in nonverbal older adults; however, guidelines are needed to help clinicians select the proper instrument for use in the nursing home setting. This article describes a project to identify clinically useful pain-behavioral assessment tools that have undergone sufficient psychometric testing. Phase 1 of the project included a comprehensive review and critique of currently available tools. In Phase 2, the National Nursing Home Pain Collaborative developed criteria to evaluate an updated list of tools and then rated 14 tools using these criteria. As a result, two tools were recommended as most representative of current state of the science, most clinically relevant, and practically applicable to integrate into everyday practice and support adherence to regulatory guidelines. Such recommendations for selection of best-available pain assessment tools are a cornerstone for clinicians in regard to managing pain of nursing home residents who, due to dementia, are unable to self-report pain.

One of the most satisfying and challenging tasks for clinicians in long-term care is relieving pain experienced by frail, older residents who, due to severe cognitive deficits from Alzheimer’s disease or other dementias, all too often have decreased ability to report or describe their suffering. The high prevalence and continued undertreatment of pain among nursing home (NH) residents with cognitive impairment is well described (Nygård & Jarland, 2005; Reynolds et al., 2008; Wu, Miller, Lapane, Roy, & Mor, 2005), and a key factor to improving pain management in NH residents with cognitive deficits is expert pain assessment (Bjoro & Herr, 2008; Tait & Chibnall, 2008). A growing number of investigators and clinicians are embracing the responsibility

Keela Herr, PhD, RN, FAAN, AGSF; Heide Bursch, MS, RN; Mary Ersek, PhD, RN, FAAN; Lois L. Miller, PhD, RN, FGSA, FAAN; and Kristen Swafford, MS, RN, CNS
to identify, measure, and relieve pain in this vulnerable group. Numerous tools have been developed to assess pain in older adults who are unable to self-report pain due to dementia.

**BACKGROUND**

With the proliferation of tools came the need to examine their validity, reliability, and clinical utility. In 2004, a project was completed to (a) identify and evaluate existing tools for assessment of pain in nonverbal older adults, and (b) prepare and make readily available evaluations of each tool, including evaluation of conceptualization, participants-setting, reliability and validity, and administration/scoring, along with a summary of strengths and weaknesses. Findings and results were published (Herr, Bjoro, & Decker, 2006) and posted on the City of Hope Pain & Palliative Care Resource Center website (http://prc.coh.org/pain-noa.htm). This website serves as a clearinghouse for dissemination of information and resources to assist others in improving the quality of pain management and end-of-life care for all patient populations. The *State of the Art Review of Tools for Assessment of Pain in Nonver-

### TABLE 1

**CRITERIA FOR RATING REVIEWED TOOLS FOR ASSESSING PAIN IN NONVERBAL OLDER ADULTS IN NURSING HOMES**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Corresponding Criterion Statement</th>
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| **Relevance of the tool in the nursing home population** | • The tool differentiates persistent pain and exacerbation of chronic pain.  
• The tool differentiates intensity of pain behavior and intensity of pain.  
• The tool targets the nonverbal dementia patient.  
• The review of literature and expert consensus is applicable to the practice base in U.S. nursing homes.  
• The tool includes pain behaviors identified by the AGS Panel on Persistent Pain in Older Persons (2002).  |
| **Reliability** | • The tool demonstrates acceptable reliability.  
• Reliability includes test-retest and/or intrarater reliability, internal consistency, and interrater reliability.  |
| **Validity** | • Validity of the tool is established for the study population.  
• Validity includes criterion-related and/or construct validity.  |
| **Utility in the nursing home setting** | • Method of administration and scoring is clearly described.  
• The tool outlines interpretation of score and implications for practice.  
• Instructions for staff teaching are provided.  
• The tool is designed for administration by certified nursing assistants (CNAs).  |
| **Fit with Minimum Data Set (MDS) 3.0 pain indicators** | • The tool includes MDS indicators of pain: nonverbal sounds, vocal complaints of pain, facial expressions, and protective body movement or posture.  |
| **Fit with F-Tag (Centers for Medicare & Medicaid Services, 2009a)** | • The tool obtains information through self-report, informant, or observation.  
• The tool screens for the following: pain at rest and with movement; negative verbalizations and vocalizations; facial expressions; changes in gait, skin color, vital signs, and behavior; weight loss; and difficulty sleeping.  |
| **Assessment** | • The tool guides assessment by CNAs.  
• The tool is able to identify all types of pain: nociceptive pain, neuropathic pain, mixed or un-specified pain, and pain as part of a manifestation of a psychological disorder.  
• The tool captures behavioral and functional change.  |
| **Plan, implementation, and re-evaluation** | • The tool can be used for structured, periodic monitoring and modification of the pain intervention.  |
| **Staff training** | • The tool serves to recognize and assess pain, report and document findings, and monitor interventions.  
• The tool serves as standardized scale to promote objective evaluation and effective management of pain.  |

*Note. Using a 4-point scale, raters were asked to rate the degree to which the tool met the criteria on the basis of the individual criterion statements. For the first four criteria listed, the scale was: 3 (available evidence is strong), 2 (available evidence supports need for further testing), 1 (available evidence is insufficient and/or tool revisions are needed), and 0 (evidence is absent). For the remaining five criteria, the scale was: 3 (completely), 2 (yes, with modification), 1 (poorly), and 0 (does not address). Raters were also asked an overall yes/no question about each tool: “Do you recommend this tool as a best practice resource for pain assessment in nursing homes?”*
TOOLS FOR ASSESSING PAIN IN NONVERBAL OLDER ADULTS IN NURSING HOMES INCLUDED IN THE EXPERT REVIEW AND CONSENSUS BUILDING PROCESS

<table>
<thead>
<tr>
<th>Tool Name</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbey Pain Scale (Abbey)</td>
<td>Abbey et al., 2004 (van Iersel, Timmerman, &amp; Mullie, 2006)</td>
</tr>
<tr>
<td>Checklist of Nonverbal Pain Indicators (CNPI)</td>
<td>Feldt, Ryden, &amp; Miles, 1998 (Feldt, 2000; Jones et al., 2005; Nygaard &amp; Jarland, 2006)</td>
</tr>
<tr>
<td>Certified Nurse Assistant Pain Assessment Tool (CPAT)</td>
<td>Cervo et al., 2007</td>
</tr>
<tr>
<td>Disability Distress Assessment Tool (Dis DAT)</td>
<td>Regnard, Matthews, Gibson, &amp; Clarke, 2003 (Regnard et al., 2007)</td>
</tr>
<tr>
<td>Doloplus 2 (Doloplus-2)</td>
<td>Lefebvre-Chapiro &amp; the Doloplus Group, 2001 (Holen et al., 2005, 2007; Pautex, Herrmann, Michon, Giannakopoulos, &amp; Gold, 2007; Pautex et al., 2006; Zwakhalen, Hamers, &amp; Berger, 2006)</td>
</tr>
<tr>
<td>Elderly Pain Caring Assessment 2 (EPCA-2)</td>
<td>Morello, Jean, Alix, Sellin-Peres, &amp; Ferrmanian, 2007</td>
</tr>
<tr>
<td>Nursing Assistant-Administered Instrument to Assess Pain in Demented Individuals (NOPPAIN)</td>
<td>Snow, Hovanec, Passano, &amp; Brandt, 2001 (Horgas, Nichols, Schapson, &amp; Vletes, 2007; Snow et al., 2004; Zwakhalen, Hamers, Abu-Saad, &amp; Berger, 2006)</td>
</tr>
<tr>
<td>Pain Assessment in Advanced Dementia (PAINAD)</td>
<td>Warden, Hurley, &amp; Vollicer, 2003 (Cohen-Mansfield &amp; Lipson, 2008; Costardi et al., 2007; Hutchison, Tucker, Kim, &amp; Gilder, 2006; Lane et al., 2003; Leong, Chong, &amp; Gibson, 2006; Schuler et al., 2007; van Iersel et al., 2006; Zwakhalen, Hamers, &amp; Berger, 2006)</td>
</tr>
<tr>
<td>Pain Behaviors for Osteoarthritis Instrument for Cognitively Impaired Elders (PBOICIE)</td>
<td>Tsai et al., 2008</td>
</tr>
</tbody>
</table>

Note. References in parentheses are additional sources concerning the tool.

The City of Hope Pain Resource Center (PRC) website http://prc.cooh.org/ is visited regularly by nurses and other clinicians in search of evidence-based assessment tools to use with their nonverbal older adult residents and receives requests regarding which tool is best for specific populations. Key consensus groups have called for further research and specific guidelines for clinicians (AGS Panel on Persistent Pain in Older Persons, 2002; Hadjistavropoulos et al., 2007; Herr et al., 2006).

Recently, the City of Hope website was updated after a second review of the literature analyzed follow-up research for existing tools as well as new tools developed since 2004. The website now contains current, detailed critiques of 17 tools for the assessment of pain in nonverbal older adults (Herr et al., 2008) and...
provided the basis for the review and recommendations described in Phase 2 of the project.

The tools critiqued on the City of Hope website address varying elements of the 2002 AGS Panel on Persistent Pain in Older Persons’ list of pain behaviors, defined as facial expressions; verbalizations and vocalizations; body movements; and changes in interpersonal interactions, activity patterns or routines, and mental status. Thus, important differences exist in scope and application, and recommendations are needed to differentiate the tools that are most appropriate for a specific patient, setting, and observer. Guidelines are necessary because NHs vary in regard to types of residents, staffing resources, institutional routines, and state-based regulations. Differentiation between tools guides clinicians in deciding which tool is best suited to different residents and clinical situations. For example, some tools are most appropriate for settings in which care providers get to know residents over time, thereby allowing observations of changes in typical behaviors. Similarly, some tools are most appropriate for licensed nursing staff, while others are best suited for certified nursing assistants (CNAs). This article presents a focused analysis of factors that influenced the selection of the most appropriate tool for use in NHs.

**PURPOSE**

The purpose of this article is to review the detailed critiques of the nonverbal behavior pain assessment tools posted on the City of Hope website and, through consensus of experts in the field, develop recommendations for one or two tools best suited for use in NHs at this time. It describes the process and results of a national Nursing Home Pain Collaborative (the Collaborative) funded by The MayDay Fund and composed of representatives from five Hartford Centers of Geriatric

<table>
<thead>
<tr>
<th>Tool</th>
<th>Relevance</th>
<th>Reliability</th>
<th>Validity</th>
<th>Utility</th>
<th>Fit with Minimum Data Set 3.0</th>
<th>Fit with F-Taga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbey Pain Scale</td>
<td>1.50</td>
<td>1.25</td>
<td>1.15</td>
<td>1.15</td>
<td>1.90</td>
<td>1.23</td>
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<td>1.15</td>
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<td>1.80</td>
<td>0.89</td>
<td>1.94</td>
<td>1.41</td>
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<td>0.00</td>
<td>0.94</td>
<td>1.80</td>
<td>1.16</td>
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<td>1.75</td>
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<td>1.95</td>
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<td>2.44</td>
<td>1.96</td>
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<tr>
<td>Mobilization-Observation-Intensity-Dementia Pain Scale</td>
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<td>1.60</td>
<td>1.40</td>
<td>1.80</td>
<td>2.30</td>
<td>1.38</td>
</tr>
<tr>
<td>Nursing Assistant-Administered Instrument to Assess Pain in Demented Individuals</td>
<td>2.10</td>
<td>2.05</td>
<td>2.06</td>
<td>2.00</td>
<td>2.50</td>
<td>1.84</td>
</tr>
<tr>
<td>Pain Assessment Scale for Seniors with Limited Ability to Communicate</td>
<td>2.10</td>
<td>2.10</td>
<td>2.00</td>
<td>1.90</td>
<td>2.60</td>
<td>2.08</td>
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<tr>
<td>Pain Assessment for the Dementing Elderly</td>
<td>1.35</td>
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<td>1.50</td>
<td>1.05</td>
<td>2.10</td>
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<tr>
<td>Pain Assessment in Advanced Dementia</td>
<td>1.90</td>
<td>2.60</td>
<td>2.10</td>
<td>2.25</td>
<td>2.30</td>
<td>1.94</td>
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<td>1.83</td>
<td>1.67</td>
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<td>1.64</td>
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<td>Pain Behaviors for Osteoarthritis Instrument for Cognitively Impaired Elders</td>
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<td>1.22</td>
<td>1.11</td>
<td>0.89</td>
<td>1.50</td>
<td>1.14</td>
</tr>
</tbody>
</table>

a This category includes Table 1 criteria of assessment; plan, implementation, and re-evaluation; and staff training.

b Denotes one missing rater.
Nursing Excellence. Recommendations are intended to guide NH clinicians in assessing pain in residents who cannot provide self-report and in meeting current regulatory mandates.

**METHOD**

The update of the City of Hope website, *State of the Art Review of Tools for Assessment of Pain in Nonverbal Older Adults*, was based on a review of the literature in PubMed, CINAHL, and PsycINFO using the keywords *pain measurement/pain assessment AND aged AND dementia/cognitively impaired AND nonverbal communication AND behavior*. The search was limited to April 2004 to July 2008. Two additional articles were identified through personal communications with other pain experts. A total of 41 articles were retrieved, 11 of which were deleted because they did not use reproducible pain assessment tools or methods. Twenty-seven articles described either follow-up research on existing tools or new tools developed since 2004. The search also yielded four review articles that were considered in evaluating the rigor of published studies (Herr et al., 2006; Stolee et al., 2005; van Dijk, Baar, Tibboel, & de Wit, 2007; Zwakhalen, Hamers, Abu-Saad, & Berger, 2006). The remaining criteria for evaluating the tools were developed and refined using established tool evaluation guidelines focused on conceptualization, participants/setting, reliability and validity, and administration/scoring. Detailed criteria and scoring can be viewed on the “Criteria for Evaluation” link at http://prc.coh.org/pain-noa.htm.

Concurrent with the tool critique, the Collaborative established additional criteria to judge tools for clinical utility and usefulness as part of regulatory mandates for pain assessment in NHs, which are included in the proposed Minimum Data Set (MDS) 3.0 (Centers for Medicare & Medicaid Services [CMS], 2009b) and the surveyor criteria for the recently revised F-Tag 309 Quality of Life that includes pain management updates (CMS, 2009a). Criteria were drafted, revised by the Collaborative, reviewed by four expert consultants, and refined by the workgroup. In the summer of 2008, members of the Collaborative, as well as the consultants, rated 14 of the 17 tools on their conceptualization, psychometric evidence, clinical utility, and fit with the regulatory environment, as described in Table 1. All raters were asked to provide comments and an overall recommendation of the tool’s appropriateness for use in the NH.

**Tools**

The fourteen tools considered in the review process can be found in Table 2. Three of the tools critiqued in the 2004 review were not considered appropriate for routine use in NHs and were thus not included in the expert review. These included the Face, Legs, Activity, Cry and Consolability Pain Assessment Tool (FLACC) (Merkel, Voepel-Lewis, Shayeitvitz, & Malviya, 1997), Assessment of Discomfort in Dementia Protocol (ADD) (Kovach, Weissman, Griffie, Matson, & Muchka, 1999), and the Discomfort Scale-Dementia of the Alzheimer’s Type (DS-DAT) (Hurley, Volicer, Hanrahan, Houte, & Volicer, 1992). No evidence has been found for use of the FLACC with older adults, and the ADD has been converted to the Serial Trial Intervention and is not described as an assessment tool. (The Serial Trial Intervention involves use of systematic serial assessments and sequential trials of treatments to identify and treat unmet needs in people with dementia that may be the underlying cause of behaviors.) The DS-DAT was omitted because it was developed as a research tool and considered too cumbersome for clinical practice.

In addition to tools strictly directed at assessing pain in nonverbal adults, two tools that measured discomfort and/or distress, the Discomfort Behavior Scale (DBS) (Stevenson, Brown, Dahl, Ward, & Brown, 2006) and the Disability Distress Assessment Tool (Dis DAT) (Regnard et al., 2007; Regnard, Matthews, Gibson, & Clarke, 2003), were included because their identified purpose was to recognize pain. Although individuals experiencing discomfort and distress may display behaviors similar to pain, clinicians are interested in distinguishing these different constructs, and clearly, treatment and interventions may differ between pain and distress or discomfort.

**RESULTS**

An average score (possible score =

<table>
<thead>
<tr>
<th>Response to Yes/No Question</th>
<th>Sum Score Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5/8.5</td>
<td>1.36</td>
</tr>
<tr>
<td>4/6</td>
<td>1.78</td>
</tr>
<tr>
<td>0/10</td>
<td>0.93</td>
</tr>
<tr>
<td>2/8</td>
<td>1.48</td>
</tr>
<tr>
<td>1/8b</td>
<td>0.83</td>
</tr>
<tr>
<td>1/9</td>
<td>1.72</td>
</tr>
<tr>
<td>4/5b</td>
<td>1.99</td>
</tr>
<tr>
<td>3/7</td>
<td>1.67</td>
</tr>
<tr>
<td>9/1</td>
<td>2.09</td>
</tr>
<tr>
<td>8/2</td>
<td>2.13</td>
</tr>
<tr>
<td>0/10</td>
<td>1.41</td>
</tr>
<tr>
<td>7/3</td>
<td>2.18</td>
</tr>
<tr>
<td>1/8b</td>
<td>1.64</td>
</tr>
<tr>
<td>0/9b</td>
<td>1.18</td>
</tr>
</tbody>
</table>
A complete list of scores can be found in Table 3. Three clusters of scores emerged in the data: The Certified Nurse Assistant Pain Assessment Tool (CPAT) and Disability Distress Assessment Tool (Dis DAT) received average ratings of less than 1. The Pain Behaviors for Osteoarthritis.
that may be pain related; however, it sist CNAs in recognizing behaviors and incorporates visual cues to as does focus on key pain behaviors routine clinical use. The NOPPAIN nying comments did not support overall tool ratings, but accompa limitations of these three tools in the to identify and discuss strengths and orative met for two teleconferences (2.18). Next, members of the Collaborative and expert panel recog- nize the importance of developing reliable, valid pain assessment tools for use by CNAs and other unli- censed personnel, in that these care providers spend the most time with NH residents and are often in the best position to observe behaviors and subtle changes in activities that may indicate pain.

**Recommended Tools**

Recommendations must be pref- aced with the precaution that these tools were selected for nonverbal NH residents with advanced de- mentia due to Alzheimer’s disease or other dementias with similar pre- sentation. No validated behavioral tools currently exist for other types of nonverbal NH residents, such as those unable to self-report pain due to aphasia or intellectual disability. Future research for these populations is urgently needed.

On the basis of the Collabora- tive’s review and discussions, the PAINAD and the PACSLAC are recommended for routine use in NHs. Both are valuable, but for different reasons. Used together, the two tools may provide a comprehen- sive approach to recognizing pain in NH residents who are nonverbal, such as those with advanced dementia. The PACSLAC incorporates a more comprehensive list of behaviors and thus may be useful as an ongoing screen on a monthly or quarterly ba- sis to identify person-specific behav- iors related to pain. The PAINAD, on the other hand, is a short, focused tool that can be completed on a more frequent basis. Because it is brief, fo- cuses on a narrower list of pain-relat- ed behaviors, and has demonstrated sensitivity to change in intervention studies for pain (Lane et al., 2003), the PAINAD is useful for daily or as-needed use and to monitor response to interventions. The tool's items of breathing and consolability are not emerging as useful indicators of pain in practice—as shown by studies in which these two items are weakly correlated to other pain behaviors (Schuler et al., 2007; van Iersel, Tim- merman, & Mullie, 2006)—however, removal of the items does not sub- stantially increase the tool’s inter- nal consistency. Because the current form of the PAINAD is used interna- tionally, we are not recommend- ing these items be deleted, allowing for cross-study comparison of out- comes. The sensitivity of the PAIN- AD to treatment outcomes requires further evaluation.

The second recommended tool, the PACSLAC, provides different, additionally valuable aspects. This tool contains 60 items but is report- ed to be relatively quick to complete when the user is familiar with the tool. It is valuable for establishing baseline behaviors that may be affect- ed by pain and supports monitoring over time to reflect broader changes in behavior and activity. Due to its comprehensiveness, it corresponds well with the proposed MDS 3.0 pain criteria and covers items that are also included in the PAINAD. The Collaborative and consultants believe this tool would be especially useful for completion of the MDS assessment, using feedback from CNAs who are familiar with the patient’s usual behaviors. Research is needed to determine whether such a process is effective for detecting pain in this population.

**Table 4** summarizes the strengths and limitations of the PAINAD and PACSLAC and shows that even the recommended tools have limitations and reinforces the importance of using pain-behavioral tools in conjunc- tion with other clinical information. Because observed behaviors captured
TABLE 5
RECOMMENDATIONS FOR ADMINISTRATION OF BEHAVIORAL TOOLS FOR PAIN ASSESSMENT IN THE NURSING HOME SETTING

1. Be aware of the limitations of the tool.
2. The tool is only one piece of the comprehensive pain assessment. Other assessments include health and medical history for potential causes of pain, physical examination, and report from family members.
3. The gold standard for pain assessment is self-report. Try to elicit a verbal report but interpret with caution if the person is inconsistent.
5. Serial observations are better than one snapshot in time.
7. Integrate tool with Minimum Data Set 3.0 and F-Tag requirements.
8. Develop an institutional policy that includes:
   - Process for facility-wide pain screening.
   - Identification of residents who are at risk for under-identification of pain.
   - Staff who are responsible for pain assessment.
   - Sources of information for pain assessment.
   - Timing of assessment and reassessment (i.e., frequency, triggers such as a change in behavior or a fall) post-treatment.
9. Recommendations for staff education:
   - Include all nursing staff, especially certified nursing assistants.
   - Provide basic pain observation and reporting training for nonclinical staff (e.g., housekeeping, dietary personnel) and families.
   - Incorporate pain assessment into orientation activities.
   - Include pain assessment in annual education activities.

in these tools have the potential to be explained by events other than pain, the well-informed clinician might initiate an analgesic medication trial to further investigate the etiology of the behaviors. For example, if evidence gathered from tool administration and caregiver report is suggestive of pain but there is no known physiological cause, the use of a routine analgesic agent for a limited observational period can be useful for providing additional information to support or refute the conclusion that behaviors are related to pain. The need for sound clinical judgment, using a comprehensive approach and knowledge about an individual resident, remains essential in determining an appropriate course of action.

In addition to the tools described in this article, the Collaborative discussed the merits of international pain assessment tools that scored high in the general evaluation but have not yet been evaluated in an English-language version and sample. This project was targeted for an English-speaking NH audience. However, continued development and validation of nonverbal pain tools across cultures and languages is needed to ensure valid and reliable tools for recognizing pain in older adults throughout the world.

RECOMMENDATIONS FOR INCORPORATING TOOLS IN THE NURSING HOME

Tool selection is only one step in identifying pain in nonverbal residents. Pain assessment in this population requires a systematic process that incorporates information from several sources. A hierarchical approach is recommended in the position statement published by the American Society for Pain Management Nursing (ASPMN) (Herr et al., 2006). The ASPMN recommendations outline five ordered steps to assess pain in nonverbal patients:
1. Attempting self-report.
2. Searching for potential causes of pain.
3. Observing pain behaviors.
4. Obtaining surrogate report from caregivers and family members for pain and behavior changes.
5. Evaluating patients’ responses to an analgesic medication trial.

The Collaborative recommends that any pain-behavioral tool should be embedded into this multidimensional process of pain assessment. A strong behavioral pain assessment tool can therefore be used to augment steps 3 and 4 by providing structure and support to observation and surrogate reports. It will also serve to evaluate the resident’s response to an analgesic medication trial in step 5.

Endorsement and support by administrative and clinical leaders is necessary for facilities to adopt and incorporate regular use of new resources (Hadjistavropoulos et al., 2009; Swafford et al., 2009). Ensuring consistent and accurate use of the pain-behavioral tools requires that each facility establish policies and procedures that guide pain assessment practices. These standards should include: how residents will be screened and evaluated for pain; the individual(s) responsible for pain assessment; and the parameters for reassessment following therapies. For some facilities, use of the tools may be part of a larger initiative to improve pain practices within the facilities. In others, a small group of staff with an interest in pain assessment may choose to trial the two recommended tools to identify their fit with organizational procedures and practices. Table 5 outlines additional recommendations for such systems-level components and also includes elements for educating staff and others about pain in this population. Pain assessment in NHs should be considered a team effort and include ancillary personnel (e.g., dietary, housekeeping) in screening for be-
haviors that may indicate pain (Herr et al., 2006; Swafford et al., 2009).

There are other considerations in using pain observation tools. First, facial grimacing, vocalizations, and body movements are emerging as key direct observational indicators (Shega et al., 2008), but these behaviors may occur only in patients with typical pain presentation. Clinicians must be alert for nontypical presentations of pain, such as changes in activity, sleep, appetite, and usual behavior, and should document specific behaviors that individual patients demonstrate. Second, research suggests that, in general, observation of pain behaviors is most effective when done during activity (e.g., transfers, ambulation, daily care activities); thus, the procedure for observation should focus on behaviors occurring during routine care activities that involve movement (Miller et al., 2005). Third, serial observations are better than singular or intermittent observations in that repeated assessments are more likely to pick up changes in behaviors that indicate exacerbations in pain and responses to therapies. Fourth, it may be advisable to use two tools concurrently, one for screening and one for brief, direct observation and assessment at more frequent intervals.

This is why we are recommending two tools—the PAINAD, which focuses on common pain behaviors, and the PACSLAC, which features a more comprehensive list that includes less common behaviors and changes in activities, interaction, and mental state. The PACSLAC serves as a good screening tool, requiring a simple yes or no response that triggers further evaluation of the pain. The PAINAD, used as an assessment tool, would allow the nurse to determine therapeutic interventions and evaluate the effectiveness of the therapies. Note that because pain-behavioral tools do not provide information on pain quality, these tools cannot guide diagnosis of pain etiology. Thus, treatment planning is largely dependent on patient medical and pain history and known diagnoses.

LIMITATIONS OF THE PAINAD AND PACSLAC

Incorporation of pain observation tools into clinical practice must include awareness of the tools’ limitations. Despite studies that document the validity, reliability, and usefulness of selected tools, additional research is necessary. For example, there is very limited empirical evidence to date on how to use pain observation tools in the context of the five-pronged approach recommended in the ASPMN guideline (Herr et al., 2006). In the absence of self-report, it is unclear how to weigh and interpret pain behaviors, surrogate report, and other indicators (Ersek, Polissar, & Neradilek, 2009; Herr & Ersek, 2009). There is also insufficient evidence to label a pain behavior score as mild, moderate, or severe pain (Pasero & McCaffery, 2005), although there is preliminary evidence that greater numbers of pain behaviors for some tools is associated with higher pain intensity (DeWaters et al., 2008; Fuchs-Lacelle, Hadjistavropoulos, & Lix, 2008). Therefore, at this time, the best approach is to use the tools to identify the presence or absence of pain and to consider increases and decreases in scores as indicators of change in level of pain for that individual.

The current state of the science does not guide the use of the tools in residents with varying degrees of cognitive impairment. It is possible that severely cognitively impaired or completely nonverbal individuals demonstrate different pain behavior than those with fewer impairments. Another area of uncertainty is the appropriate time frame for observation. Studies have used real-time observation as well as retrospective recall of varying periods, but differences in tool reliability based on time frame for observation have not been documented. Finally, there is limited evidence on the sensitivity of these tools to detect change (Cohen-Mansfield, 2008; Cohen-Mansfield

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**KEYPOINTS**

**PAIN-BEHAVIORAL ASSESSMENT TOOLS**


1. When selecting a pain-behavioral assessment tool for patients with dementia who cannot report or describe their pain, clinicians need to consider the purpose and focus of tool development, its reliability and validity, its clinical utility in their specific nursing home setting, regulatory guidelines, and the tool’s limitations.

2. Used in combination, the Pain Assessment in Advanced Dementia Scale and the Pain Assessment Scale for Seniors with Limited Ability to Communicate can augment a systematic hierarchical pain assessment process in nonverbal patients with dementia.

3. Ensuring consistent and accurate use of the pain-behavioral tools requires that facilities establish policies and procedures that guide pain assessment practices.
& Lipson, 2008; Fuchs-Lacelle et al., 2008). Sensitivity of the tools to subtle changes in pain is critical for determining their utility and the effectiveness of therapies, and research in this area is needed.

The limitations of the current state of the science regarding pain-behavioral tools reflect the complexity of assessing pain in nonverbal residents. Although additional research and refinement is necessary, there is sufficient evidence to recommend the two tools, the PAINAD and the PACSLAC, for use in NHs. Earlier published reviews noted the strengths of these tools, and additional support that addresses earlier limitations has accumulated (Herr et al., 2006; Stolee et al., 2005; van Herk et al., 2007; Zwakhalen, Hamers, Abu-Saad, et al., 2006).

SUMMARY

This review and expert analysis of 14 pain assessment tools for nonverbal older adults show that there is no one single tool that fully meets rigorous standards of reliability and validity in NH settings. Nonetheless, two tools emerged with sound psychometric findings in follow-up studies, resulting in these recommendations for practical application in the clinical setting. The PAINAD was deemed useful for daily assessments, including follow-up evaluation of pain interventions, whereas the PACSLAC was recommended as a baseline and monthly or quarterly maintenance assessment tool to reflect broader changes in behavior and activity and to integrate ongoing pain monitoring into the proposed MDS 3.0 documentation.

The Collaborative also sought to provide implementation strategies to facilitate practical use of the tools. These strategies, including training recommendations, suggestions regarding integration of the tools into daily practice, and strategies for tool use, are offered to help NHs successfully integrate these tools. Systems-level support from NH administration is required to embrace the changes in process and associated training that are necessary for consistent application of the recommended tools. Integration of tools into daily clinical practice in NHs and careful evaluation of patient outcomes will contribute to further refinement of these and other behavioral pain assessment tools and improve assessment of pain for nonverbal NH residents who have dementia. A comprehensive evidence-based web resource for managing pain in the nursing home, including clinically usable formats of the PACSLAC and the PAINAD, can be accessed at http://www.geriatricpain.org.

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**ABOUT THE AUTHORS**

Dr. Herr is Professor and Chair, Adult and Gerontological Area, and Ms. Bursch is a John A. Hartford Predoctoral Scholar, The University of Iowa College of Nursing, Iowa City, Iowa; Dr. Ersek is Associate Director, John A. Hartford Center for Geriatric Nursing Excellence, and Associate Professor, Center for Integrative Science in Aging, The University of Pennsylvania School of Nursing, Philadelphia, Pennsylvania; and Dr. Miller is Professor, and Ms. Swafford is a John A. Hartford Predoctoral Scholar, John A. Hartford Center of Geriatric Nursing Excellence, Oregon Health & Science University, Portland, Oregon.

The authors disclose that they have no significant financial interests in any product or class of products discussed directly or indirectly in this activity. This project was supported by The MayDay Fund.

The authors thank Brianne Black for efforts in the original critique process, other members of the Collaborative (Deb Bakerjian, Suzanne Prevost, and Pao Feng Tsai), and the expert consultants (Ann Horgas, Christine Koutch, Janet Specht, and Joan Teno).

Address correspondence to Keela Herr, PhD, RN, FAAN, AGSF, Professor and Chair, Adult and Gerontological Area, The University of Iowa College of Nursing, 50 Newton Road, Iowa City, Iowa 52242; e-mail: keela-herr@uiowa.edu.

Received: April 7, 2009
Accepted: October 5, 2009
Posted: January 22, 2010
doi:10.3928/00989134-20100108-04