Pain Assessment in the Older Population – where are we now?

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Assessment of pain in the older adult presents a number of challenges, especially related to communication. This commentary summarises the revised evidence-based Guidelines for the Assessment of Pain in Older Adults (2nd Edition) which have been developed by the British Pain Society and British Geriatrics Society. The guideline summarises the pain assessment tools that have been developed and validated for use in the older population. Recommendations are made for use of specific tools in older people and in those with dementia. The need for education and training of health care professionals is emphasised. Gaps in the evidence are identified as subjects for future research. It is hoped that the guideline will improve recognition of pain in older people, and help to drive the future research agenda

Aim of the National Guideline Update

The primary aim of this revised systematic review was to examine the evidence for the effectiveness of pain assessment strategies in older people with or without cognitive function.

**The objectives were to:**

1. Explore the attitudes and beliefs of older people with pain about the assessment of their pain and interactions with carers

2. Evaluate the effectiveness of the assessment of function as a measure of pain in older people

3. Evaluate the effectiveness of self-assessment to quantify pain in older people

4. Determine if changes in pain assessment strategy are required for people with cognitive impairment, mental health or psychological problems.

The overall methodology for this assessment document follows the procedures in the British Pain Society *Publication Process Manual* (BPS 2010). The strategies to identify and evaluate, and the methods used to identify recommendations were based upon the Scottish Intercollegiate Guideline Network *SIGN 50* guidance document (SIGN 2011).

**Search Strategy**

All publications on acute and chronic pain screening and assessment in adults over 60 years of age including case reports, cohort studies, review papers, observational studies, randomised controlled trials and systematic reviews in all languages in all care settings were identified from searches of Medline (PubMed), CINAHL, Amed, PsycINFO, Embase, Google Scholar and Cochrane Library between 01.01.2002 and 30.04.2017. Two reviewers independently read and graded the papers according to the National Health and Medical Research Council criteria (1999b).

The following sections will summarise the results of the systematic review. The full version of the guidelines is available in print and in Age and Ageing online.

**Prevalence of pain in older persons**

The prevalence of any type of pain ranged widely from a low of 0% to a high of 93%, clearly illustrating how variations in the population, methods and definitions used can affect prevalence estimates. The vast majority of studies found that women had a higher prevalence than men and age differences were also demonstrated.

While previous evidence suggests that chronic pain typically affects those of working age, there is growing evidence to demonstrate that chronic pain continues to increase into the oldest old. Dionne et al (2006) found that, although older people experience a decrease in non-disabling back pain, described as benign or mild pain, they experience increased prevalence of disabling back pain, described as severe. This work is further supported by the findings of Thomas et al (2007) who reported that the onset of pain that interferes with everyday life continues to increase with age. There is a need to carry out large scale epidemiological studies to confirm the incidence and prevalence of pain in older people.

**Attitudes & Beliefs**

The influence of spiritual and religious beliefs on dealing with pain has been the subject of more investigation but with mixed findings regarding positive outcomes for different elements of the pain experience; cultural differences need particular consideration. Stoicism has been implicated in the underreporting of pain in older people, although pain related stoicism has been subjected to limited empirical investigation. We are aware from clinical experiences and from the literature that increasing pain with age is often assumed to be a natural part of ageing both on the part of the professional and the individual themselves. Engagement with self-management and coping with pain should be an essential aspect of any pain management service. More research into the specific coping strategies and beliefs of the older population is welcomed and would allow us to tailor approaches to their specific needs.

 **Communication**

We know that communication of pain presents many challenges to the individual, caregiver and family member. Communication (verbal or other), is fundamental to the whole process of pain assessment. However, one of the problems we face in the UK is the 10 minute consultation, which often limits older adults from engaging in meaningful conversation about their pain. It has been highlighted by McDonald et al (2009) that providing older adults with more time in consultations aids communication and this may be enhanced by using simple assessment tools such as the Brief Pain Inventory (BPI) (De Rond et al 2000).

**Interpersonal interaction in pain assessment**

Assessing pain in older adults is complex (Horgas & Dunn 2001) and in many cases, a lack of caregiver (Martin et al 2005; van Herk et al 2009) and family (Hall-Lord et al 2002) knowledge results in half of those living in pain continuing to do so (Bradford et al 2012). Pain in nursing home residents is often undetected with older adults with cognitive impairment reporting more pain than their cognitively intact counterparts (Allen et al 2002). This results in poor pain management for this group. Education and training of staff to recognise pain and importantly, to act on their findings is paramount. But we also need an awareness of the arsenal of pain measures available and an understanding of how and when to use them.

**Self-report measures of pain assessment**

The most accurate and reliable evidence of the existence of pain and its intensity is the patient’s self-report (Pautex et al 2005). The patient self-report is the most reliable and accurate is true even for patients with impaired cognition (Stolee et al 2005; Pautex et al 2006). The responsibility for the inclusion of a regular assessment of pain during discussions with the patient lies with the clinician or carer. Older people often deny pain, but may respond positively when asked using related terms, such as soreness, aching or discomfort. Re-wording your question to elicit the presence of pain such as “Do you hurt anywhere?” or “What is stopping you from doing what you want to do?” can substantiate the presence or absence of pain. Using a self-report pain measurement tool for a patient with known cognitive, sensory, or motor deficits can be useful. There are a number of validated and reliable tools and the choice of tool should be based on the patient’s ability to use the tool. Many patients with moderate to severe cognitive impairment are able to report pain reliably when prompted (Manz et al 2000). Previous reviews support the use of verbal descriptors or numerical rating scales for this group and avoidance of the Visual Analogue Scale or Faces Pain Scale (Collett et al 2007). Pain scales should be utilised alongside the clinical skills of the member of the multi-disciplinary team and a clinical assessment should be carried out which requires education of staff.

The most common self-report assessment tools for pain included: Multidimensional Pain Inventory, Pain and Impairment Relationship Scale, McGill Pain Questionnaire, PRI, Brief Pain Inventory (and in some cases: interRAI (collaborative network of researchers ) LTCF, The Standardized Evaluation of Pain StEP , ODI (Oswestry Disability Index), and items from SF-36). The self-report assessment tools for mood most commonly used were: Geriatric Depression Scale, The Center for Epidemiological Studies-Depression (CES-**D**),, Depression Rating Scale (DRS), Depression, Anxiety, Stress Scaler (DASS) (and in some cases:, Hospital Anxiety & Depression Scalr (HADS), ASI, The Cambridge Examination for Mental Disorders of Older People (CAMDEX), PVS, and selected items from K6, Minimum Data Set (MDS), SF-36). Physician recorded diagnosis, structured interviews, body map diagrams, simple checklists, multiple choice questions and Likert scales designed specifically for the research were also used to assess pain and mood. These different pain assessment tools have been described in detail in the full version of the guidelines.

**Self-report measures of function for older people with chronic pain**

Chronic pain affects physical function in older people as it does people of all ages, and is commonly assessed by self-report questionnaires. A major consensus statement offered recommendations on self-report measures of physical function in older people with pain, based on review of literature and expert opinion (Hadjistavropoulos et al 2007). Hadjistavropoulos et al (2007) provide a list of measures, which they view as performing well psychometrically and practically in clinical and research settings with older people. For assessment of overall function (as opposed to function related to a specific anatomical area) they list:

 Functional Status Index

 MPI-General Activity Scale

 Physical Activity Scale

 Human Activity Profile

 Groningen Activity Restriction Scale

 Sickness Impact Profile

 SF36 – specifically in relation to its physical functioning and role limitations-physical scales

 Older Americans Resources Service, which is primarily applicable to a USA-based population.

These measures are designed for use in a range of conditions. For example the Pain Disability Index is recommended as a measure of pain and its impact on the ability of a person to participate in essential lifestyle activities. Of these measures listed, it is the SF36 that Hadjistavropoulos et al (2007) recommend for assessing pain and its effects in older adults.

A recent addition to that family of measures is the WHODAS 2.0 (Ustun et al 2010). The WHODAS 2.0 (replacing the WHODAS II) addresses physical function within its domains of mobility, self-care, getting along, life activities, cognition and participation. It has a possible added value of being directly linked to the theoretical basis of the well-recognised WHO International Classification of Functioning, Disability and Health. As well as a straightforward procedure for analysis, broadly similar to that in the other measures, it also features the facility to conduct an advanced (and complex) analysis using Item Response Theory. This has yet to be validated on older people over 65 with chronic pain.

**Pain assessment in cognitive impairment**

In terms of behavioural pain assessment scales, in 2007 we identified a total of 12 scales (Abbey, Pain Assessment in Advanced Dementia Scale (PAINAD)., Pain Assessment Checklist for Seniors with Limited Ability to. Communicate (**PACSLAC**)., Disability. Distress Assessment Tool (DisDat), Pain Assessment for the Dementing Elderly (PADE) , Paine, Doloplus, NoPain,][checklist of nonverbal pain indicators (cnpi)](https://kentuckyonehealth.org/documents/Nursing/CNPI.pdf), Pain Assessment in Advanced Dementia (ADD), MOBILIZATION – OBSERVATION – BEHAVIOUR – INTENSITY – DEMENTIA (Mobid) & COOP). The recent review undertaken for these guidelines has identified sixteen scales, an increase of four scales. In 2007, we recommended the use of the Abbey, PAINAD or Doloplus scales based upon the best evidence at the time. We also recommended that more work was needed in terms of validating scales as opposed to developing new scales. There has been no further work in terms of validating the Abbey scale, yet it still remains popular in the UK. The Bolton Pain Assessment Tool (BPAT) continues to be evaluated in clinical practice in different settings (Bruce 2017).

There have been a number of studies which have further explored the Doloplus scale. Furthermore, this scale has now been translated into many languages including English for use across Europe, yet it remains unpopular in the UK.

More work has been carried out using Pacslac (Cheung & Choi 2008) and PAINAD (Horgas & Miller 2008)). The Pacslac scale has good inter-rater reliability (Cheung & Choi 2008;), is the scale most valued by nurses (Zwakalen et al 2012), but does need a short form and more testing in larger scale studies. PAINAD is a sensitive tool for detecting pain in adults with dementia, but does have a high false positive rate (Jordon et al 2009). The scale has not been evaluated in adults with mild to moderate dementia, but we do know that adults with mild to moderate dementia can appropriately use self-report measures and scales such as numerical rating scale and verbal descriptors. Nevertheless, PAINAD has a high sensitivity (92%) but low specificity for pain (62%). It is easy and simple to use. More research is needed using larger sample sizes and BME groups.

**Conclusion and Recommendations**

Assessment of pain in the older adult presents a number of challenges, especially related to communication. Revised evidence-based Guidelines for the Assessment of Pain in Older Adults have been developed by the British Pain Society and British Geriatrics Society. The guideline summarises the pain assessment tools that have been developed and validated for use in the older population. Recommendations are made for use of specific tools in older people and in those with dementia. The need for education and training of health care professionals is emphasised. Gaps in the evidence are identified as subjects for future research. It is hoped that the guideline will improve recognition of pain in older people, and help to drive the future research agenda.

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