

Assessment and Management of Pain in Older Adults: Current Perspectives and Future Directions

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ABSTRACT

Until recently our knowledge of the prevalence of pain in older persons, particularly the oldest old, was relatively poor. Pain tended to be considered as part of the ageing process and was rarely investigated in its own right. The evidence suggests that pain is a common problem for older people with chronic persistent pain affecting at least 50% of community dwelling older adults. Although, earlier work suggests that this number is even higher. When we consider the oldest and most vulnerable, such as those living in care homes, it is believed that the incidence of pain increases to 80%. More recent work confirms the size of the ageing population in pain and it remains high. This article aims to discuss the assessment and management of pain in older adults.

Key Words: pain; assessment; management; older adults

Background

We know that we are facing an ageing time bomb across the world. The proportion of the world's population over 65 years old will rise from 7.4% to 16.4% by 2050¹. Similarly, the over 80 population is set to triple, which suggests that we are going to see a significant increase in the frailest most vulnerable adults around the world¹. In contrast we also know that our younger population is set to decrease meaning there will be considerably less adults to support the oldest old.

Until recently our knowledge of the prevalence of pain in older persons, particularly the oldest old was relatively poor. Pain tended to be considered part of the ageing process and was rarely investigated in its own right²⁻³. Recent evidence suggests that pain is a common problem for older people with chronic persistent pain affecting at least 50% of community dwelling older adults²⁻³, with those with cognitive impairment and dementia even higher⁴. Furthermore, earlier work suggests that this number is even higher⁵. When we consider the oldest and most vulnerable, such as those living in care homes, it is believed that the incidence of pain increases to 80%⁴. More recent work confirms the size of the ageing population in pain and it remains high⁶. This work also demonstrated that of the 22 studies that examined pain at different sites, the three commonest sites of pain in older people are; back (16 studies); leg, knee or hip (16 studies); Other joints (5 studies)⁶.

Perspectives of Older Adults

A study looking at care home populations explored the perceptions of staff and residents to pain⁷. Six care homes were included in the study and from a pool of homes within one district, a total of twenty-six residents were interviewed. From this sample, the average age was 82 years, there were nine male residents and sixteen female residents. At the time of interview, 85% were experiencing pain and 50% reported this pain as being moderate to severe. Despite this finding, 50% were not taking any form of analgesia and the rest were either taking paracetamol (31%) or co-analgesics (19%)⁷. The range of pain producing

morbidities included; arthritis, hip pain, multiple pains and leg ulcers, with arthritis affecting 45% of the sample⁷.

Several major issues were identified that related to the residents⁷:

- Reluctance to report pain to staff
- Acceptance that being in pain is normal for older patients
- Low expectation of success from medical staff and concern about side-effects
- Fear of Chemical / Pharmacological dependence/addiction
- Age- related perceptions of pain
- Lack of awareness of potential strategies

A Scottish study based in one care home, reported that although the majority of psychoactive prescribing is tailored to patient need (for anxiety, depression and insomnia) with the notable exception of pain relief⁸. Similar reasons for the under-treatment of pain syndromes was reported as above⁸.

Many of these issues identified appear to relate to improved communication between residents and staff and it may be that by introducing pain assessment into practice, this would encourage an exchange between the older person and their carers. Furthermore, the study identified several issues related to the staff themselves, for example qualified care home staff were concerned that assessment of pain in this group was problematic and they felt that they were so short-staffed that time was a major problem. The unqualified staff were frustrated that they did not have the knowledge to contribute to pain management within this setting but they believed that they knew the residents well enough to contribute to the formal assessment of their pain⁷.

Furthermore, the staff interviewed were keen to improve pain management but they were unsure of what they could do and lacked the confidence to implement strategies as part of their everyday practice⁷. These findings appear to suggest that there is a need to provide unqualified care home staff with education to empower them to be more involved in pain management and this education could be supported by the implementation of pain guidelines, such as the ones recently published⁹.

Attitudes/ Perceptions/ Barriers

There is evidence to support the hypothesis that attitudes and beliefs play an important role in mediating the way in which patients engage with treatment and the pain experience in general (pain intensity, psychological distress, functional impairment and coping strategies utilised)¹⁰⁻¹¹. Attitudes can be defined as affective responses to an object (thing, idea, person or activity). Beliefs can be conceptualised as ideas held by individuals about the world that also act as a framework for interpreting experiences and using coping strategies (cognitive or behavioural) to manage challenges to day-to-day living¹².

A systematic review of the literature identified thirteen papers that focused upon attitudes of staff working in care homes from the USA, UK and Australia¹³. From this review a number of problems were identified that appear to influence pain management within the care home setting. For example, Closs identified that staff perceived pain to be a natural part of ageing but they found assessment of pain was hampered when cognitive impairment existed¹⁴. Further work by Vallerand et al found difficulties in communication were mainly related to physician – staff communication and they demonstrated that where education programmes and improved communication tools were implemented that many of the problems were reduced¹⁵. Many of the studies reviewed found that staff tend to

underestimate the pain of residents¹⁶⁻¹⁷ and Weiner et al suggested that this was because staff became desensitised to pain¹⁸. Nevertheless, the staff in this study did acknowledge that pain does not decrease when there is cognitive impairment, the problem is more related to assessment of pain and the ability of staff to attribute behaviours to pain¹⁸. Katsma & Souza reinforced this difficulty in identifying pain behaviours in their study and they reported that staff were more able to identify pain behaviours when they had received pain education¹⁹. Clearly, the studies demonstrate that by improving education of staff, communication, assessment and management of pain will improve.

More recently, a review of the literature by Jones has demonstrated that some attitudes and beliefs that are relevant to pain (but not pain-specific) operate at the level of the patients' 'world view', and research into such ontological beliefs is limited²⁰. Investigation into 'just world' beliefs (beliefs around the degree to which people 'get what they deserve') indicate that compared with working-age adults, older participants had stronger beliefs in a 'personal' and 'general' just world and experienced less pain, disability and psychological distress²⁰. The influence of spiritual/religious beliefs (and coping) has been the subject of more investigation, but with mixed findings regarding positive outcomes for different elements of the pain experience, and the importance of cultural differences in degrees of religiosity have been highlighted²¹.

Attitudes of stoicism have been implicated in the under-reporting of pain in older people³, although pain-related stoicism has been subject to limited empirical investigation. There is some evidence from qualitative and quantitative research to support the existence of age-related differences in attitudes of stoicism in the face of pain, its role in influencing pain reporting, and in mediating the chronic pain experience in general²².

Assessment of Pain

Uncontrolled pain can impact upon the physical health of the older adult and quality of life, and therefore assessment and management of pain should be important in all clinical settings²³. There are a number of advantages to carrying out a formal pain assessment as follows:

- **Formal Record:** It is important that we have a formal record documenting our pain management practice. From a professional and legal perspective we have a duty of care for our patients regardless of age and sadly in these days of litigation we could easily become victim of such law-suits if we fail to recognise and consequently treat pain.
- **Faster Recovery:** Research many years ago demonstrated that if we assessed pain appropriately, we would treat it more effectively and subsequently patients would recover quicker²⁴. Both the negative physical consequences of untreated pain and the emotional well-being that can be achieved by effectively assessing and managing pain should be borne in mind.
- **Improved Understanding:** When treatments are not working, it can be identified very quickly and so as practitioners we can become more aware of effective and ineffective treatment strategies

Assessment Tools

We have a range of assessment tools that are available for use with any adults. Many of which have been well validated. For example, the verbal pain descriptors (none, mild, moderate or severe) and numerical rating scale (0-10 or 0-5) are very useful measures of pain intensity that have been validated with the older population and can be used even

when mild to moderate cognitive impairment exists²⁵, although their effectiveness is limited in dementia syndromes where direct observation tools and caregiver reports may be more clinically accurate⁴. Examples of tools for more complicated pain measures include the Brief Pain Inventory (BPI) and the McGill Pain Questionnaire (MPQ). The McGill Pain Questionnaire (MPQ) is a very useful measure of pain quality and provides a list of 78 descriptors used to describe pain of which the user can pick words that can later be collated into a sensory, affective and evaluative overall score. This measure is well validated within many populations and translated into many languages for cross-cultural use.

What is really crucial, is that individuals become familiar with the assessment tools used in their local area⁴.

Behavioural Assessment Tools

In recent years there has been a proliferation of behavioural pain assessment tools that have been designed specifically for the measurement of pain in older adults. Recent systematic reviews of the literature^{5,26-27} have revealed at least ten behavioural pain assessment tools which can be used to measure pain in older adults with cognitive impairment. The scales include: DS Dat, CHPI, ADD, Doloplus, NOPAIN, PADE, PAINAD, Pacslac and Abbey pain scale. However, most of the scales with the exception of the Doloplus have only been used in small-scale studies and there is limited evidence of validity and reliability. Collectively they do corroborate the behavioural indicators, but individually, they do not demonstrate sufficient evidence to support the use of the scale.

The most promising scales for both practice and research appear to be PACSLAC, Abbey pain scale and DOLOPLUS-2.

The key take home messages that we can make from the review of the assessment literature are as follows:

- Assessment of pain in older adults can be carried out using the numerical rating scale or verbal descriptors even whilst there is evidence of mild to moderate cognitive impairment.
- There are a number of behavioural scales available all of which are fairly consistent in terms of behavioural indicators of pain. The most promising in terms of evidence is the Doloplus scale. However, PACSLAC and Abbey are promising in terms of clinical utility.
- Observation is an important skill in identification of pain amongst the older population
- Staff and caregivers must become familiar with the locally used tools for assessing pain syndromes. This in itself will improve the effectiveness of the assessing tool.

One of the lessons we have learned is that in order to get anything used in practice, we need to make it as user-friendly as possible. The assessment guidelines were not widely used, so we have developed the pain assessment application. This provides a pain assessment algorithm that can be downloaded onto the iPhone or an android phone²⁸.

It is also important to remember as Melzack once said:

“To describe pain solely in terms of intensity is like specifying the visual world only in terms of light flux, without regard to pattern, colour, texture and the many other dimensions of the visual experience”²⁹

Therefore pain assessment should take on a more holistic perspective. Although, assessment is only the first part of the process and as we have discussed, poor pain management can impact upon the health and well being of the older adult. Therefore, after the assessment, we need to manage pain effectively.

Management Approaches

The recent review of the literature around the management of pain in older adults published in 2013 has summarised the literature making recommendations on a number of approaches which includes; pharmacological, invasive, psychological, self management, activity, exercise and complementary therapies (see tables 1-3)⁶. What was consistent with all of the approaches was that there is limited research evidence specifically testing the approaches with older adults. Generally, the recommendations are based upon research that has used the approaches with young adults and translated across to older adults, which is not an ideal comparison. Therefore, we can clearly recommend that greater research needs to be carried out looking at interventions with the older population.

Conclusion

In conclusion, pain is both common and under-treated in older adults. There are numerous communication and knowledge barriers, some patient mediated and some clinician mediated, which prevent patient receiving optimal management of pain syndromes. Recent work looking at improved methods of assessing pain in older adults is welcome, and has aided improvements in assessing those older adults with pain syndromes, particularly with cognitive impairment. Further work is required to validate some of these tools and implement them more widely in clinical practice. In addition, as much of the evidence for managing pain syndromes in the over 65s is based upon research in younger patients, specific research looking at pain in the over 65s will be required to improve the age-specific recommendations in the evidence base.

Table 1: Summary of Pharmacological Recommendations⁶

Drug	Comments
Paracetamol	Musculoskeletal pain (do not exceed recommended daily dose)
NSAIDs	Used with caution - lowest dose should be used for the shortest period and be reviewed regularly. A proton pump inhibitor should be co-prescribed with a NSAID or selective COX-2 inhibitor, choosing the one with the lowest acquisition cost
Opioids	For moderate to severe pain. Treatment must be individualised and carefully monitored for efficacy and tolerability as there is marked variability in how individual patients respond to opioids. It is important that side effects of opioid therapy (including nausea and vomiting) are anticipated as we know they are common.
Tricyclic antidepressants or anti-epileptics	Anti-cholinergic side effects may be problematic. The lowest possible dose should be initiated and increased very slowly based on response and side effects.
Topical lidocaine and capsaicin	Limited efficacy in neuropathic pain. Topical NSAIDs can be used for neuropathic pain, if the pain is localised.

Table 2: Summary of Interventional Recommendations⁶

Intervention	Comments
Intraarticular (IA) corticosteroid injections IA hyaluronic acid	Indicated in knee osteoarthritis These are effective in relieving pain in the short term with few complications and/or joint damage. IA hyaluronic acid is effective with few systemic adverse effects and it should be considered in patients intolerant to systemic therapy. It has a slower onset of action than IA steroids but the effects appear to last longer.
Epidural corticosteroid injections	May be appropriate in spinal stenosis in older patients but their use in radicular pain or sciatica is not so convincing
Epidural adhesiolysis	May benefit older adults spinal stenosis and radicular symptoms
Sympathectomy	Neuropathic pain
Nerve blocks using a combination of local anaesthetic and corticosteroid or Botulinum toxin	Acute herpes zoster and post-herpetic neuralgia
Microvascular decompression	Trigeminal neuralgia in healthy patients and percutaneous procedures are indicated for elderly patients with high comorbidity.

Table 3: Other Strategies⁶

Strategy	Comments
CBT or behavioural therapy	Some small studies are promising
Biofeedback training, relaxation, mindfulness, meditation and enhancing emotion regulation	Some evidence in small scale studies
Physiotherapy and occupational therapy	Exercise should be tailored to the functional level of the individual. Balance exercises can be incorporated successfully into a programme.
Assistive devices	May support community living, reduce functional decline and reduce care costs.
Self management	Must have ongoing support
TENS, massage and reflexology	Some weak evidence

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