Assessing pain in older people in residential aged care facilities

TRISHA DUNNING AM, RN, CDE, MEd, PhD

The recognition of pain in older people can be complicated by the presence of dementia and misconceptions that pain is a part of ageing. Older people in residential aged care facilities should be assessed regularly for the presence of pain and managed accordingly.

Key points

- **Increasing age is associated with a higher prevalence of pain. Older people in residential aged care facilities are at risk of unrecognised and undertreated pain.**
- **Many reliable evidence-based pain assessment tools are available but self-report is the most reliable source of information about pain and may help in the diagnosis of the underlying cause of pain.**
- **Cognitive impairment makes pain assessment challenging; observational and behavioural assessment methods are useful.**
- **Pain has a significant adverse effect on a patient's behaviour, physical and mental health, functioning, social relationships, self-esteem and quality of life.**
- **It is important to treat the underlying cause of pain and to use appropriate treatments for the type of pain.**

Pain is a significant issue for many older people (over the age of 65 years), who may be more susceptible to pain than other age groups.[1] Musculoskeletal, neuropathic, cancer and pressure ulcer pain are particularly prevalent in the older age group.[2] Many countries, including Australia, have 'national pain strategies', yet pain remains under-recognised and undertreated in older people, especially those in residential aged care facilities (RACFs).[3-5] For example, up to 80% of residents in RACFs have pain but are not prescribed analgesics, and 75% are not treated at all.[6]

Pain is regarded as a global public health issue.[7] Untreated pain has both physical and psychological consequences and compromises quality of life. However, pain is not an inherent part of ageing: it is largely a result of the increasing burden of disease. Pain is due to age-related changes, diabetes complications and other comorbidities.

Most pain strategies and guidelines recommend regular screening for pain followed by a formal pain assessment to develop an individualised management plan. Culture and beliefs influence the way people cope with and explain pain. In addition, there are differences between the way men and women perceive and cope with pain, women often reporting greater pain intensity, fear and helplessness than men.[8] This paper focuses on identifying and assessing pain in older people in RACFs and also provides brief information about pain management strategies.

What is pain?

Pain in older people is a: 'highly individual unpleasant experience involving all aspects of the person and is amenable to intervention, yet if left untreated it reduces quality of life.'[1]

Therefore, pain is 'what a patient says it is and where he/she says it is.'[9,10] Language used by health professionals to describe pain may not be shared or understood by older people who use terms that refer to pain intensity, such as 'hurts', 'aches', 'burns' and 'sore.' Five categories of pain are described: acute, subacute, recurrent, chronic and cancer pain (Box 1).[10,11] It is important to determine the type of pain the person is experiencing because it will affect the treatment used and its effectiveness.

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Professor Dunning is Chair in Nursing and Director of the Centre for Nursing and Allied Health Research, Deakin University and Barwon Health, Geelong, Vic.

1. Overview of the different types of pain

Acute pain
Acute pain generally arises in damaged tissue and is a normal time-limited response to trauma, accidents, diseases and surgical procedures such as debridement and/or dressing a diabetic foot wound. Acute pain typically has a readily identifiable cause and purpose.

Subacute pain
Subacute pain is a stage in the transition process to chronic pain. It refers to the time from healing of the initial injury that caused the acute pain (usually one to two months) to six months after the injury.

Recurrent pain
Migraine is the classic example of recurrent pain. Pain can also occur in joints during walking and other activities, which may restrict people to activities that do not induce pain.

Chronic pain
Chronic or persistent non-cancer pain refers to pain that extends beyond the normal healing time. It refers to pain that is present every day for more than three months of the preceding six months. Chronic pain results from neuroplastic changes in the central nervous system. There is a relation between chronic pain and social disadvantage.[11]

The main types of chronic pain are:

- ***Nociceptive pain***: This is 'tissue pain' in everyday language. It is related to stimulation of specialised receptors (nociceptors) in somatic and visceral structures. It may arise from inflammation, mechanical deformation and ongoing injury or disease.
- ***Neuropathic pain***: This is also known as 'nervous system pain'. Examples are central post stroke pain, trauma pain, especially after spinal cord injury, post-herpetic neuralgia and diabetic neuropathy. This pain may be described as burning, tingling or numbness.
- ***Nervous system sensitisation pain***: This pain is related to dysfunction or sensitisation of the nervous system. Nervous system sensitisation explains the persistence of pain in the absence of a clear nerve injury and after a tissue injury has healed.

Cancer pain
Pain is one of the most feared consequences of cancer. It can occur at any stage of the cancer journey and can be due to the effects of the cancer and/or the investigations and treatment, and is often one of many burdensome symptoms.

Prevalence of pain in older people

Increasing age is associated with an increased prevalence of pain.[9,12] Many people expect to have pain as they get older, but pain should not be considered a normal part of ageing.[13] Prevalence rates of pain in older people in RACFs range from 40% to 80%.[14] More than 90% of community-dwelling older people experience pain and 41% report distressing, uncomfortable, 'horrible' or excruciating levels of pain.[12,15] Pain accounts for high rates of hospital admissions and is associated with the presenting problem, as well as investigations and medical procedures. More than 20% of Australians over the age of 65 years reported having persistent pain that significantly affects their quality of life.[11]

A retrospective analysis of data obtained from the database of a large for-profit RACF chain in Canada showed that 23% of residents who had pain documented on two consecutive assessments had no scheduled analgesia.[16] Also, those with cognitive impairment or Parkinson's disease were less likely to receive analgesia.[16] Residents were more likely to receive analgesia if they reported severe pain or pain on a daily basis.[16] Severe chronic pain has many physical, mental and behavioural impacts for the individual and is associated with increased 10-year mortality.[17]

Pain is a particular problem in older people with dementia or cognitive impairment because they cannot advocate for themselves. In addition, pain affects short-term memory and spatial location, possibly because pain disrupts the circuit between the prefrontal cortex and the hippocampus and depletes attentional reserves such as thought, reasoning and memory.[18] Assessing and treating pain can be difficult, especially in people with cognitive impairment or dementia; however, some people with cognitive impairment are able to complete some targeted pain assessment tools.[19] Treating patients with pain can also be challenging because opioids, anti-inflammatory drugs and tricyclic antidepressant medicines are not well tolerated by older people and may be contraindicated.[20] Age-related changes and diabetes complications affect medicine pharmacokinetics and pharmacodynamics and often lead to polypharmacy.

Assessing pain

Pain can be difficult to assess when the older person is unable to express or communicate their pain because of cognition changes (due to, for example, hypoglycaemia and hyperglycaemia, dementia, delirium, dysphasia, hearing and/or vision loss) and/or a language barrier. Pain intensity can vary considerably at different times of the day and between rest and activity. Assessments undertaken at rest could miss pain that occurs during usual activity, and people might limit activities to avoid pain, which can lead to muscle wasting, falls and sarcopaenia.[21] Consequently, mobility should be assessed as part of a comprehensive pain assessment.[5]

Several validated pain assessment tools are available that use self-reporting as part of a comprehensive assessment of pain. Box 2 lists multidimensional and unidimensional pain tools commonly used in RACFs.[1,21-23] Pain tools used to assess neuropathic pain specifically are also listed. It is important to choose a pain assessment tool that best suits the individual's health literacy level, cognitive function, language/culture and their ability to understand numerical rating scales, which can be challenging. The individual might use different words from those used on some pain tools – for example, 'hot', 'sore', 'hurts' instead of 'mild', 'moderate', 'severe' or 'very severe'.

Observation checklists

Observing behaviour, movements and verbalisations is useful to detect the presence or absence of pain when the older person is unable to communicate their pain verbally. Observation does not differentiate between behaviour changes unrelated to pain and has a high false-positive rate[19,21] but it can be useful to review the individual's progressive response to pain interventions.

The Behaviour Pain Scale (BPS) and the Critical-Care Pain Observation Tool can be

2. Commonly used pain assessment tools involving self-reporting*

Self-reporting of pain is regarded as the 'gold standard' and is often assessed using numerical rating scales (i.e. 0 to 10) and/or verbal descriptor scales (i.e. mild, moderate, severe). Choose an assessment tool that is appropriate to the resident and use the tool consistently for that resident.[1,21-23] Ensure relevant, valid pain assessment tools are readily available in residential aged care facilities and that staff are educated to use them appropriately.

Multidimensional pain assessment tools
Multidimensional pain tools are used to assess the sensory, emotional and physical/functional components of pain.

- McGill Pain and Short-Form McGill Questionnaires
- Resident's Verbal Brief Pain Inventory (RVBPI): short and long versions are available
- Comprehensive Pain Assessment Form: geriatrics
- Pain Disability Index (PDI)
- Multidimensional Pain Inventory

Unidimensional pain assessment tools
Unidimensional assessment tools are used to monitor ongoing pain and to assess the individual's response to pain management strategies.

- Numerical Rating Scale (NRS)
- Verbal Descriptor Scale (VDS)
- Visual Analogue Scale (VAS)
- Pictorial Pain Scale/Faces Pain Rating Scale
- Pain Thermometer Scale

Neuropathic pain assessment tools
These tools can be useful to assess diabetic and other neuropathic pain.

- Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) Pain Scale
- Neuropathic Pain Symptom Inventory (NPSI)
- Neuropathic Pain Questionnaire (NPQ)
- Douleur Neuropathique en 4 Questions (DN4)
- painDETECT
- ID-pain
- Brief Pain Inventory (BPI)
- NeuroQual and the Norfolk Quality of Life Scale: used to assess the effects of neuropathy on quality of life

* Further details on these tools can be found in *Pain in Residential Aged Care Facilities: Management Strategies* (The Australian Pain Society).[1]

3. Signs of pain observed as changes in an older person's usual body language and behaviour*

Facial expression

- Frowning, frightened expression, especially when combined with vocal and body movements
- Grimaces, wincing, tightly closed eyes
- Rapid blinking
- 'Pulling' faces, e.g. raising or lowering eyebrows, wrinkling the nose, compressed lips

Vocal sound/words

- Sighing, moaning, groaning, grunting, screaming
- Calling out or asking for help
- Aggression
- Noisy breathing or panting

Body movements

- Tension, guarding
- Fidgeting
- Pacing or rocking
- Restricting usual movement
- Changed gait

Social interaction

- Aggressive or disruptive behaviour
- Inappropriate behaviour
- Reduced social interaction
- Withdrawing

Activities

- Change in appetite or refusing food
- Fatigue or resting more frequently
- Changes in sleep and rest patterns, e.g. neuropathic foot pain often worse at night
- Increased wandering

Mental status

- Cognitive changes
- Increased confusion
- Crying
- Irritability

* Some behavioural signs of pain can be identified through careful observation and noting changes in the older person's usual body language and behaviour.[1,9,21] Assumptions about the observations should be checked where possible because the behaviours observed may or may not be due to pain. Knowing the person helps make informed decisions about body language and behaviours during observational assessments.

used in RACFs to assess pain in older people who cannot communicate but have intact motor function. Observation checklists assess several behavioural factors (Box 3)[1,9,21] and include the previously mentioned BPS and Critical-Care Pain Observation Tool and the following:

- Pain Assessment CheckList for seniors with Limited Ability to Communicate (PASLAC)
- Pain Assessment in Advanced Dementia (PANAID)
- Abbey Pain Scale, which is widely used in RACFs
- Non-Communicating Patient Pain Assessment Instrument
- Faces Pain Scale for the Elderly.

Observation checklists are particularly useful if they are used with tools that evaluate sedation, such as the Richmond Agitation Sedation Scale and the Sedation Agitation Scale, and tools to assess delirium, such as the Confusion Assessment Method.[11] It is particularly important to consider the relation among pain, delirium and depression.

RACF staff and family members often know the older people they care for and recognise changes in their behaviour that could indicate the presence of pain. This knowledge and astute clinical judgement (ability to recognise clinical indicators) are as important as using pain assessment tools. The older person's family can often provide important background information that can be helpful when deciding care goals and individualising the care plan.[1] Importantly, individual healthcare professionals interpret pain assessment tools differently, which can affect the recorded pain score and the treatment.[24] Assessments can vary significantly between doctors and nurses caring for the same RACF residents[25] and between the resident and healthcare professionals due to their training, personal experiences, and cultural and religious backgrounds.

Clinical interview

A clinical interview is an important component of a comprehensive pain assessment. Asking relevant questions, using probing and clarifying questions, actively listening by carefully observing the individual's behaviour and demeanour (astute observation) are essential. It can be helpful to have family members present during the clinical interview. Self-reporting is an important aspect

4. Questions to use in a clinical interview as part of a comprehensive pain assessment

Generally open-ended questions yield more information and are more likely to reflect the older person's experiences than using closed questions that force answers. It is also important to be alert for cognitive fatigue when using pain assessment tools and asking questions.

- 'Does it hurt anywhere?' Bear in mind older people might not use the word 'pain' so this it may be better than asking 'Are you in pain now?'
- 'Can you tell me what the pain feels like?'
- 'Have you had pain like this before?'
- 'Can you point to where the pain is?'
- 'Is the pain there all the time?'
- 'Does it go away sometimes?'
- 'What makes the pain better?'
- 'What makes the pain worse?'
- 'Do you have any other symptoms besides the pain?'
- 'Does the pain affect your sleep, usual activities, quality of life, appetite or mood?' 'Does it stop you visiting friends, doing your hobbies or having relationships?' Ask about each of these issues separately.
- 'Can you tell me how much pain you can tolerate on a scale of 1 to 10, where 0 is no pain and 10 is severe pain?'

of a pain assessment interview.[9,11] Understanding the resident's pain history and the psychological and social impact of pain, as well as reviewing the effectiveness of pain management strategies is important.

Pain experience can change; therefore careful documentation and reassessment, including treatment effectiveness, are important. Some useful questions are shown in Box 4. The questions should flow from the interview rather than using a 'tick box' list. Questions need to be asked slowly and may need to be repeated. Generally, combining a clinical interview and using a validated pain assessment tool appropriate for the individual yields better information, especially in older people with cognitive impairment.[26]

Managing pain

Where possible, non-medicine options such as acupuncture, massage and exercise should be used first in the management of older people with pain. These strategies can be combined with medicines to manage pain, improve function and sleep, and reduce fatigue.[7,10,16] The WHO has devised an analgesic ladder that is useful for titrating medicines for all types of pain.[26] It consists of three steps:

- use nonopioids, such as paracetamol or NSAIDs, to treat mild to moderate pain but note the cautions and contraindications to using NSAIDs in older people
- if pain persists add a weak opioid, such as codeine, for mild to moderate pain. However, it is increasingly common to use low-dose oxycodone or sometimes buprenorphine
- oxycodone is then used for severe and/or persistent pain.

To prevent withdrawal effects, opioids should not be stopped suddenly. Some older people and their families worry that opioids will cause addiction or that commencing opioids means the person is dying. It is important they are reassured that opioids are appropriate to treat patients with severe pain. Fear and worry about addiction can mean the person will not ask for analgesia and this contributes to chronic unrelieved pain.

Key aspects of assessing and managing pain in RACFs

The following issues need to be considered when assessing and managing older people with pain in RACFs.

- There should be a culture of 'pain vigilance/awareness' for staff, residents and families.
- Residents should be assessed for pain on admission to the RACF and then on a regular basis as needed or requested.
- Systematic processes for identifying and managing pain should be put in place and include:
  - educating staff, residents and families about how to identify, report, document and manage pain.
  - using carefully worded questions to obtain a self-report from the patient with pain
  - using observation to supplement self-reports, especially in people with cognitive impairment and dementia
  - using recognised validated pain assessment tools relevant to the type of pain and to the individual
  - considering pain when the individual's health status or behaviour changes
  - treating pain promptly once it is identified and having a comprehensive pain management and follow-up plan
  - tailoring the analgesic non-medicine/medicine regimen to the individual's health status, pain severity the effectiveness of the pain management interventions
  - collaborating with and referring to the individual's primary care doctors, allied health, pain and other specialist as indicated
  - ensuring regular pain assessments are undertaken on a needs basis and the effectiveness of the intervention documented
  - monitoring analgesic medicines for effectiveness, and side effects as part of the overall medicines regimen
  - proactively treating known analgesic side effects such as delirium, vomiting and constipation to prevent discomfort and harm; analgesics that cause delirium should be avoided
  - having a strategy for managing pain associated with end of life

Summary

Assessing pain is a key aspect of the care of older people in RACFs and is an essential part of each resident's individual care plan and, often, their medicines regimen. The effectiveness of pain management strategies should be assessed regularly using validated pain assessment tools relevant to the individual and clinical need. Importantly, evaluative pain assessment is an ongoing process. It should be undertaken when a person is admitted to a RACF, when pain is suspected or the resident indicates they are in pain, and at least at three-monthly intervals.[1] **PMT**

References

A list of references is included in the website version (www.medicinetoday.com.au) of this article.

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