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Multimodal Pain Management for Older Adults in Primary Care

Bina Solanky

## **Abstract**

Persistent pain affects 50% to 75% of adults of the age of 65 and it is often underreported and undertreated in primary care. This manuscript discusses how nurse practitioners and other primary care providers can manage persistent pain in older adults utilizing nonpharmacological methods in addition to standard pharmacological treatments.

*Keywords: older adults, primary care, pain management, nonpharmacological treatments, nurse practitioners, elderly*

## **Introduction**

In the United States, the population over the age of 65 increased to 49.2 million in 2016.<sup>1</sup> This number is projected to be 83.7 million by 2050.<sup>2</sup> This means that primary care providers will be caring for more older patients and need to be able to address the specific biopsychosocial needs of this population. One important issue for the older adult is pain. There are an estimated 50% to 75% of adults over the age of 65 who suffer from persistent pain.<sup>3,4</sup> Women in this age group have a higher prevalence of pain than men.<sup>5</sup> Older adults often have pain in multiple sites<sup>6</sup> which can make assessment more challenging. Furthermore, there is evidence to suggest that due to multiple other health concerns, patients may underreport their pain when they are visiting their provider.<sup>5,7</sup> In one study, despite chronic pain being a priority for older adults, providers spent less than three minutes discussing it with their patients in a primary care setting.<sup>8</sup>

Persistent pain in older adults can affect other aspects of their health and lives. It can lead to sleep issues, risk for depression, and a decline in physical activity.<sup>7,9</sup> Patients may have pain-related fear of exercising which is strongly associated with disability.<sup>10</sup> This can also be complicated by the fact that less physical activity can lead to obesity or weight gain which can contribute to even more pain.<sup>7</sup> Furthermore, there is an increased risk for adverse effects from the medications that they may be taking for their pain due to changes that occur as people age.<sup>5</sup> All of these factors are especially important with older adults as many of the effects of pain in elders are also the same risks that are identified for falls.<sup>11</sup> Since falls are the leading cause of injury and injury-related death,<sup>12</sup> it is essential that nurse practitioners are able to successfully assess for pain and provide adequate pain management.

## **Assessment**

Nurse practitioners should assess for pain in every geriatric patient visit and should conduct a comprehensive pain assessment during the initial encounter. Older adults often underreport their pain due in part to stoicism, where they believe that pain is just a normal part of aging and do not want to be viewed as complaining.<sup>5,13,14</sup> It can also be underreported in part from providers not empathically asking about the pain or focusing on other health issues that are of higher priority.<sup>15</sup>

Providers can open the conversation asking about the presence of pain and assess severity and quality of pain. There are many validated screening tools for assessing pain. The most commonly used pain assessment tool is the numerical rating scale or verbal description scale where the patient either rates their scale from 0-10 or uses descriptive words such as mild, moderate, severe, etc.<sup>14</sup> There are more comprehensive standardized pain assessment tools such as the brief pain inventory, geriatric pain measure, and pain disability index.<sup>16</sup> The advantage of these validated tools are they not only assess for pain quality but also pain-related interference or disability which is important to assess in older adults.<sup>17-19</sup> Any persistent pain that interferes with activities of daily living (ADL), social functioning, and/or sleep should be assessed and treated. If a patient has moderate to severe dementia and is unable to utilize those tools, there are several observational nonverbal tools that can be used to identify pain. Providers can also get a history from caregivers.<sup>13</sup>

A physical exam should follow the history and should focus on the areas of reported pain as well as any areas that pain may be referred to. Special attention should be given to the musculoskeletal system and nervous system and a thorough functional assessment.<sup>13</sup> For patients with persistent pain, the same quantitative pain measures should be used at all follow up visits and there should be careful monitoring of any changes in pain between visits.<sup>13</sup>

It is also important to assess the patient's attitudes and goals related to pain management and to set realistic expectations. There is not always a "cure" for persistent pain but improvements can be made in pain severity, frequency, and limitations on functioning. This should be discussed with patients to prevent unrealistic expectations. The most successful treatment of persistent pain in older adults is related to adequate patient education about the different aspects of pain, treatment options, and self-care strategies.<sup>20</sup>

### **Special considerations for older adults**

There are certain considerations that need to be taken into account when assessing and treating adults over 65 years old compared to those under 65. There are physiological differences that need to be considered, especially when considering different treatment methods. Older adults have altered drug absorption and decreased renal excretion.<sup>21</sup> They also may be presenting with multimorbidity and polypharmacy,<sup>21</sup> so it is imperative that providers review all treatments that patients are taking and start with lower doses of analgesics to prevent harm to the patient. Other important aspects to consider with older adults is that there may be a change in sensitivity to pain by older adults.<sup>7</sup>

Another difference is that older adults may feel that pain and disability are to be expected with age. They may also compare themselves to other peers and think that their own pain is not as disabling comparatively and so would not report pain. Older adults tend to have smaller social networks which means they have less support to rely on for help with ADLs. Furthermore, older adults tend to be more reluctant to take medications for pain.<sup>7</sup>

### **Standard Treatment**

The most common treatment for pain in older adults is pharmacotherapy.<sup>13</sup> Pain that is mild to moderate is usually treated with acetaminophen or non-steroidal anti-inflammatory drugs

(NSAIDs).<sup>13</sup> Acetaminophen can be given around the clock for patients without renal or liver issues and can be effective in managing pain with few side effects.<sup>5</sup> Oral NSAIDs are usually a second choice for managing mild to moderate pain and can be given in addition to acetaminophen if the latter is not effective on its own.<sup>13</sup> However, it is not recommended to use NSAIDs for long periods of time due to risk of cardiovascular, renal, and gastrointestinal adverse effects.<sup>16</sup>

Pain that is moderate to severe is usually treated with opioids and have been shown to be effective in the short-term but there is not much data regarding long term use in older adults.<sup>5</sup> Opioids are usually considered when other treatments are unsuccessful but the side effects of nausea, constipation, and sedation can limit their use and must be carefully monitored.<sup>16</sup> Additionally, the Centers for Disease Control and Prevention created new opioid prescribing guidelines for primary care providers and discuss the use of opioids for older adults. The guidelines warn providers to increase monitoring of this population when taking opioids due to an increased likelihood for accumulation of opioids and an increased risk that other medications may interact with the opioids.<sup>22</sup> Other pharmacotherapies for persistent pain in older adults include tricyclic antidepressants and anticonvulsants but these also need careful monitoring due to increased risk for adverse effects in this population.

### **Effective nonpharmacologic pain management strategies in primary care**

The recommendation for effective treatment of persistent pain in older adults is utilizing a multi-modal approach that incorporates not only pharmacotherapy but nonpharmacological interventions as well.<sup>13,16,22</sup> Despite these recommendations, the treatment of pain in primary care is often limited to pharmacologic treatment only, due to lack of training, education, support and resources.<sup>23</sup> There are many different types of nonpharmacological interventions for chronic pain

management that cover a wide range of therapies. These therapies generally fall into the categories of mind-body therapies, movement therapies, and physically oriented therapies.<sup>24</sup>

There have been an increasing number of studies evaluating the effectiveness of these complementary therapies but there are still not many involving older adults.

Cognitive behavioral therapy (CBT) and other behavioral therapies have been shown to increase patients' control over pain and has been shown to be helpful in older adults as well. One study revealed that older adults who received CBT therapy and some exercises found significant improvements in pain distress, disability, and mood compared to those who received only exercise or wait-list control.<sup>25</sup> Even though CBT is generally provided by a trained practitioner, other behavioral techniques can be taught to patients by nurse practitioners in primary care.

Nurse practitioners who taught patients about pain coping skills in doctors' offices for patients with osteoarthritis found improvements in pain functioning, psychological distress, and reduced use of pain medication.<sup>26</sup> These mind-body therapies involve relaxation and breathing techniques, mindfulness, and meditation. Many of these techniques are fairly simple to teach to patients and behavioral therapies are revealing some effectiveness in chronic pain management in older adults.<sup>27</sup> These strategies can be helpful for patients as it gives them the tools to self-manage their pain and have greater control over their lives. A meta-analysis of 12 studies found that cognitive and behavioral therapies show effectiveness of pain experience for older adults.<sup>27</sup>

Another intervention that is helpful for older adults with persistent pain is exercise. This is an intervention that is often underutilized due to lack of knowledge on the part of the provider and fear of injury for the patient.<sup>28</sup> However, prescribing tailored exercise in primary care to older adults has shown to increase levels of activity.<sup>29</sup> This helps to improve physical functioning that is usually affected by persistent pain. Utilizing physical therapists or community resources



such as Tai Chi and yoga classes that are low cost and easily accessible can be a helpful way to encourage physical activity and have been shown to modestly improve function and decrease pain interference without exacerbating pain symptoms.<sup>30</sup>

Other practices such as acupuncture or chiropractic interventions have also shown some moderate effect on persistent pain.<sup>31</sup> However, these rely on referrals to other providers that may not be feasible for patients due to transportation or costs. It is helpful for primary care providers to establish connections with other providers and resources in the community that can be used as referrals. In primary care settings with multidisciplinary teams, offering these nonpharmacological methods should always be utilized when treating older patients with chronic pain.

## **Recommendations**

With the current CDC guidelines encouraging use of non-pharmacological pain treatment interventions, a recent study was published identifying the barriers and facilitators towards utilizing these options.<sup>32</sup> Along with cost and transportation, one of the barriers identified by patients and providers was lack of knowledge regarding efficacy of nonpharmacological treatment options.<sup>32</sup> Brief educational interventions for both providers and patients may help to reduce barriers to pain management.<sup>33</sup>

Providers also felt that it was difficult to introduce nonpharmacological treatments once patients were started on opioid therapies and patients did not feel that nonpharmacological therapies were as effective.<sup>32</sup> However, another study took patients on chronic opioids and put some into group visits that incorporated complementary therapies such as relaxation, mindfulness, yoga, tai chi, and behavior therapy. Though patients initially resisted the idea that

other therapies would help their pain, the ones who completed the group sessions stopped increasing opioid use and even started decreasing their use.<sup>34</sup>

The most effective way to promote a multimodal approach to chronic pain management in older adults is a combination of educational sessions for both primary care providers and their patients regarding the multi-dimensional aspects of pain and how nonpharmacological therapies can be used effectively to manage persistent pain. It is important to empower nurse practitioners in primary care with the knowledge of the efficacy of some of these treatments and which methods can be incorporated into primary care practice where there may not be a full interdisciplinary team. Further research still needs to be conducted on effectively managing chronic pain in the elderly especially focusing on nonpharmacological therapies that are easily accessible for this population.

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