Appropriate Analgesic Use in the Elderly

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Background

There is a growing concern of prescription pain medication abuse amongst the elderly. Seniors aged 65 and older represent 38 million people and account for 13% of the US population today.¹ This population is projected to grow to an estimated 71 million by the year 2030.¹ According to an epidemiologic study presented at the American Academy of Addiction Psychiatry (AAAP) 23rd Annual Meeting & Symposium, 20% of people 65 and older take analgesics several times a week.² Within this population, the rates of abuse and/or addiction in the chronic pain population can be as high as up to 18%.² The elderly population, particularly those in the community setting, has increased access of wide ranging analgesic agents. A Medscape report states that “people get prescription pain medications from a friend or a relative, not from a drug dealer on the street. Or they get it from one physician.”³ This report continues on to imply that there is an abundance of over-prescribing narcotic agents by primary care prescribers.

With a growing population of elderly patients that is at risk for misuse, abuse, or addiction to pain medications, the purpose of this study is to determine whether analgesic medications are used appropriately by an elderly population. For the purposes of this study, appropriate use will be defined by the Pharmacological Management of Persistent Pain in Older Persons.⁴ The guidelines set within this article explain that significant pain involves a lack of physical function or decrease in quality of life. Proper usage of analgesics requires a “thorough initial assessment” by a physician in order to relieve pain in the most accurate physiological sense. Under the guidelines, pain management and comfort levels must be established between the physician and patient.⁴ Patients must be appropriately treated by the least invasive route of pharmacotherapy while also considering proper timing. For example, patients with around-the-clock pain should be treated with medications that provide “steady-state analgesic blood concentration.” These types of patients should also have a fast-acting, breakthrough agent included in their medication profile. Treatment regimens need to be properly established for patients who have both chronic and non-chronic pain types. An assessment of activities of daily living needs to be performed in order to determine the complexity of the patients’ pain and its impact on his or her everyday living.⁵ Patients are also to be screened for the type and duration of pain they are experiencing in order to differentiate between chronic and acute pain, while also determining the underlying disease state.⁵ These areas of assessment are integral for proper medication management.

Recent research suggests that opioid misuse may be linked to depression in patients with no history of substance abuse. The treatment of pain in this population of patients should typically include an adjuvant agent, such as an antidepressant. Taking into account the proper management of pain given
the aforementioned guidelines, the overall objective of this study is to provide insight into the self-management of pain in older adults. Specific aims include: determining whether there is a gap in care with regards to pain management within this population, defining the abuse and misuse prevalence within this age group, and assessing potential correlations between depression and medication abuse through the use of the Patient Health Questionnaire-2 (PHQ-2).

Methods

This study was conducted utilizing survey methodology. A non-validated survey was developed by the researchers for the purpose of this study. The survey collected the following information: respondent demographics such as gender and age, a respondent assessment of their current pain control utilizing the Wong-Baker FACES scale, a description of the respondent’s current pain and treatment for it, and a brief assessment of depression status utilizing the Patient Health Questionnaire-2 (PHQ-2). The Wong-Baker FACES scale is a popular visual scale that uses facial expressions to help illustrate the patient’s pain level. The PHQ-2 questionnaire inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 questionnaire is meant to be utilized as a means to screen for depression and not as a diagnostic tool. Patients who screen positive (score of ≥3 out of 6) should be further evaluated utilizing the PHQ-9 to determine whether they meet the criteria for a depressive disorder. The survey utilized in this study can be seen in Figure 1.

The project was approved by the Duquesne University Institutional Review Board (IRB). Following IRB approval, survey distribution began on January 4, 2014 and concluded on March 4, 2014. Surveys were distributed at several ambulatory locations. Specifically, surveys were distributed at 4 locations throughout the city of Pittsburgh, PA: a senior community center, two independent pharmacy locations, and a primary care physician office. At each of these locations, the surveys were distributed by one of the research pharmacists and/or student pharmacists to any participant over the age of 65 years. No other exclusion criteria were used. Due to the length of the survey, participants were incentivized by receiving a small gift bag upon completion. The gift bags contained a variety of over-the-counter health and wellness products, such as Kleenex®, shampoo or conditioner, hand sanitizer, toothpaste, lotion, or dental floss.

Results

During the three month data collection phase, a total of 29 surveys were completed in their entirety and able to be used for statistical analysis. Specifically, 13 surveys were collected from the senior community center, 4 surveys were collected from the primary care physician office, and 7 and 5 surveys were collected from each of the independent pharmacy locations.
Demographics collected from the surveys revealed that the average age of participants was 75.4 years (range 65-93). Sixty-two percent of the respondents were female (n=18).

Table 1 depicts respondent answers to the survey questions regarding their current level of pain control as assessed by the Wong-Baker FACES scale, as well as how well they felt their non-opioid or opioid medications helped to control their pain. Table 2 illustrates how respondents selected their over-the-counter pain medication (through referral, advertisement, or self-selection). Each table shows these results individually for each study location as well as aggregate averages.

Three of the 29 participants screened positively on the PHQ-2 questionnaire (score of ≥3 out of 6). Two of these participants rated their current pain level as 8 out of 10. The third participant stated that they were not currently having any pain.

Discussion

This study was done as a pilot to assess the potential improper utilization of pain medication in an elderly population. The study locations selected to participate in this study were chosen due to their proximity of a pharmacy attempting to implement a pharmacist-managed pain center. Results of this study showed that, on average, participant’s pain levels were well-controlled. Survey results also showed that participants were most likely to select an over-the-counter pain medication as the result of physician referral or by their own self-selection. Lastly, there appeared to be a slight correlation between potential depressive disorders and enhanced perception of pain; however, more data is needed to fully substantiate this claim.

The largest limitation to the study was the small sample size. Data was collected for a time period of three months with the hope of collection at least 100 surveys. Despite gift bag incentives, participants were often unwilling to complete the survey. Of those that did, some did not complete the form in its entirety, making statistical significance impossible to prove. Another limitation to the study was that the questions were subjective in nature and patient-reported. This could potentially lead to inaccurate or incomplete information gathered.

Despite the study limitations, the qualitative pieces of the survey did reveal that as a whole, the participant’s pain was being treated in accordance to guidelines for the management of pain in older adults. Additionally, interaction with the research pharmacists during survey collection resulted in many
counseling sessions on proper utilization of pain medications as well as nonpharmacologic options to help alleviate pain.

Future plans are to continue this study to gather more data in order to assess the feasibility of a pharmacist-managed pain center in this area of the city.

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References


