Original Article

Barriers to Cancer Pain Management in Danish and Lithuanian Patients Treated in Pain and Palliative Care Units

Ramune Jacobsen, PhD,[*] *Jurgita Samsanaviciene, MSc,*[‡] *Zita Liubarskiene, PhD,*[‡] *Per Sjøgren, MD, DMedSc,*[||] *Claus Møldrup, PhD,*[#] *Lona Christrup, PhD,*[†] *Arunas Sciupokas, MD, PhD,*[ʃ] *and Ole Bo Hansen, MD*[¶]

Abstract:

The prevalence of cancer-related pain is high despite available guidelines for the effective assessment and management of that pain. Barriers to the use of opioid analgesics partially cause undertreatment of cancer pain. The aim of this study was to compare pain management outcomes and patient-related barriers to cancer pain management in patient samples from Denmark and Lithuania. Thirty-three Danish and 30 Lithuanian patients responded to, respectively, Danish and Lithuanian versions of the Brief Pain Inventory pain scale, the Barriers Questionnaire II, the Hospital Anxiety and Depression Scale, the Specific Questionnaire On Pain Communication, and the Medication Adherence Report Scale. Emotional distress and patient attitudes toward opioid analgesics in cancer patient samples from both countries explained pain management outcomes in the multivariate regression models. Pain relief and pain medication adherence were better in Denmark, and the country of origin significantly explained the difference in the regression models for these outcomes. In conclusion, interventions in emotional distress and patient attitudes toward opioid analgesics may result in better pain management outcomes generally, whereas poor adherence to pain medication and poor pain relief appear to be more country-specific problems.

*From the *Department of Pharmacy; [†]Department of Drug Design and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark; [‡]Department of Social and Humanitarian Sciences, Faculty of Public Health; [ʃ]Department of Neurology, Faculty of Medicine, Lithuanian University of Health Sciences, Kaunas, Lithuania; [||]Multidisciplinary Pain Center, Rigshospitalet, Copenhagen, Denmark; [#]Abbott Danmark, Copenhagen, Denmark; [¶]Department of Anesthesiology, Holbæk Hospital, Holbæk, Denmark.*

Address correspondence to Ramune Jacobsen, PhD, Section for Social Pharmacy, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Jagtvej 160, DK 2100, Copenhagen, Denmark. E-mail: raja@farma.ku.dk

Received September 28, 2011; Revised June 5, 2012; Accepted June 6, 2012.

1524-9042/$36.00

http://dx.doi.org/10.1016/j.pmn.2012.06.002

The prevalence of acute and chronic pain in cancer patients is high: from 30% in patients with newly diagnosed cancer to 60%-80% in patients with advanced disease (Cherny, 2006). However, if adequate treatment is provided, sufficient pain relief can be obtained in the majority of these patients (Meuser, Pietruck, Radbruch, Stute, Lehmann, & Grond, 2001). Barriers to the use of opioid analgesics may cause undertreatment of cancer pain.

In most countries, opioid consumption is considered to be a criterion for evaluating the quality of management for cancer pain (Lindena & Muller, 1996; Mercadante, 1998). Until recently, Denmark has had the highest use of strong opioid analgesics per capita in the world. This was explained by an increased awareness of the importance of pain treatment, increased opioid consumption in chronic noncancer pain patients, earlier initiation of opioid treatment, and higher opioid doses for cancer patients with severe pain (Jarlbaek, Andersen, Hallas, Engholm, & Kragstrup, 2005). Lithuania, on the other hand, lies at the bottom of country lists regarding opioid use. The summary defined daily dose of morphine consumption in Lithuania is ~20 times lower than in Denmark (End of Life Care, 2012; Hamunen, Paakkari, & Kalso, 2009). A comparison of these two countries with such differences in opioid consumption could help us to achieve a better understanding of the barriers to cancer pain management.

In general, systemic (e.g., economic, legislative, health care organizations), health care professional, and patient-related barriers to cancer pain management have been identified (Schug & Gandham, 2006). The different economic potential of the two countries has an influence on differences in the magnitude of opioid use. Aside from that, legislation regulating opioid prescription may also explain the magnitude of opioid consumption. There are no legislative restrictions regarding prescribing analgesics for cancer patients in Denmark. In Lithuania, however, a 1997 regulation requires that physicians use a special prescription form for every opioid analgesic being prescribed. In addition, each opioid may be ordered for only a period of 7 days for patients believed to be terminally ill. The single exception is transdermal patches, which may be prescribed over a period of 30 days (Skorupskiene, 2004).

A review of the literature on physician-related barriers to cancer pain management with opioids concluded that physicians from several countries, including Denmark, were clearly more knowledgeable regarding potential barriers. They were less concerned about addiction, tolerance, and side effects to opioids in cancer patients; prescribed strong opioids in effective doses more often; and were aware of the importance of rescue analgesia (Jacobsen, Sjogren, Moldrup, & Christrup, 2007). Physician-related barriers to cancer pain management in Denmark and Lithuania can not be compared, because no such studies exist in Lithuania.

Patient-perceived pain relief is the final goal of cancer pain management. Studies to validate instruments for assessing patient barriers in the Danish and in Lithuanian languages have been conducted previously (Jacobsen, Moldrup, Christrup, Sjogren, & Hansen, 2009a; Jacobsen, Moldrup, Christrup, Sjogren, & Hansen, 2009b; Jacobsen, Moldrup, Christrup, Sjogren, & Hansen, 2009c; Jacobsen, Samsanaviciene, Liuabarskiene, & Sciupokas, 2010). The aims of the present study were twofold: 1) to compare pain intensities and perceived pain relief in Danish and Lithuanian cancer patient samples; and 2) to compare patient-related barriers to pain management in these samples.

METHODS

Definition of Patient-Related Barriers to Cancer Pain Management

The most significant patient-related barriers to cancer pain management are patients' reluctance to communicate about pain and adhere to treatment recommendations, as well as cognitive barriers, such as fear of addiction (Pargeon & Hailey, 1999). The understanding of patient-related barriers in the present study was expanded by using an idea from the multidimensional theory of pain, which states that cognitive, sensory, and affective factors constitute the intensity of pain that patients perceive and report (Melzack, 1988). Following this idea, patients' knowledge and beliefs about pain medication (e.g., fear of addiction) were regarded as cognitive factors, the physiologic experiences related to pain treatment (e.g., opioid side effects) were regarded as sensory factors, and patients' emotional experiences (e.g., symptoms of anxiety and depression) were considered to be affective factors.

Measures

Pain Severity and Pain Relief. The pain intensity scale of the Brief Pain Inventory (BPI) was used to evaluate pain intensity and perceived pain relief. In addition to their current pain intensity, patients were asked to report their worst pain, least pain, and average pain over the past 24 hours. Patients rated pain intensity on an 11-point numeric rating scale (NRS) ranging from 0 = "no pain" to 10 = "pain as bad as I can imagine". One item addressed pain relief; its response options ranged from 0 = "no relief" to 100 = "complete relief" on an 11-point NRS. The BPI has been used extensively and translated into a number of languages. Different versions of the BPI have been found to be both valid and reliable (Cleeland & Syrjala, 1992).

Cognitive Barriers. The Barriers Questionnaire II (BQ-II) was used to evaluate cognitive factors. The BQ-II is a 27-item self-reporting instrument designed to measure the extent to which people hold beliefs