Original Article

Sex Differences in the Adequacy of Pain Management Among Patients Referred to a Multidisciplinary Cancer Pain Clinic

Kristine A. Donovan, PhD, Lindsay A. Taliaferro, MS, MPH, Charles W. Brock, MD, and Sadaf Bazargan, MD

Health Outcomes and Behavior Program (K.A.D., L.A.T.) and Psychosocial and Palliative Care Program (S.B.), H. Lee Moffitt Cancer Center & Research Institute, Tampa; and Department of Neurology (C.W.B.), University of South Florida College of Medicine, Tampa, Florida, USA

Abstract

Few studies have evaluated sex differences in the adequacy of pain management in cancer. Existing studies have been marked by methodological limitations and results have been mixed. The present study sought to determine whether sex was associated with pain severity and pain management in cancer patients newly referred by their primary oncology team to a multidisciplinary cancer pain clinic. One hundred thirty-one cancer patients completed the Brief Pain Inventory-Short Form and medical chart review was conducted to obtain patients' clinical characteristics and pain treatment data. There were no differences between males and females in ratings of worst pain in the last week. Females were significantly less likely to have been prescribed high potency opioids by their primary oncology team and significantly more likely to report inadequate pain management as measured by Pain Management Index scores. These results suggest a sex bias in the treatment of cancer pain and support the routine examination of the effect of sex in cancer pain research. J Pain Symptom Manage 2008;36:167–172. © *2008 U.S. Cancer Pain Relief Committee. Published by Elsevier Inc. All rights reserved.*

Key Words

Pain, cancer, pain management, sex differences

Introduction

Despite the prevalence of pain in cancer,[1] pain is often undertreated.[2–5] Research suggests that patient characteristics, such as minority status or less educational achievement, are associated with an increased likelihood of having pain inadequately treated.[6–9] Other patient characteristics, including sex, have not been as widely evaluated in studies of cancer pain patients.[10] That research on the effect of sex on cancer pain and pain management is limited is particularly noteworthy given the fact that studies have suggested sex differences in pain sensitivity and tolerance,[11,12] response to analgesic medications,[13,14] and pain treatment outcomes.[15]

To date, the results of existing research examining the effect of sex on the treatment of

Address correspondence to: Kristine A. Donovan, PhD, Health Outcomes and Behavior Program, H. Lee Moffitt Cancer Center & Research Institute, 12902 Magnolia Drive, MRC-PSY, Tampa, FL 33612, USA. E-mail: kristine.donovan@moffitt.org

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pain in cancer have been mixed. For example, in a descriptive, cross-sectional study, Cleeland et al.[3] described the treatment of pain in 1,308 outpatients with metastatic cancer. Results indicated that females were 1.5 times more likely to report inadequate pain management based on Pain Management Index (PMI) scores.[3] The researchers did not report whether there were sex differences in reported pain severity or in the analgesic medication doses prescribed, however. Strömgren et al.[16] examined pain control in 175 patients with advanced cancer referred for palliative care. Males and females did not differ in reported pain severity. Although the researchers compiled data on analgesic medications, including equianalgesic doses, they did not examine whether there were sex differences related to the adequacy of pain management. Edrington et al.[17] assessed the severity and management of pain in 187 cancer outpatients with pain from bone metastases. There were no sex differences in pain severity, analgesic doses prescribed, or the adequacy of pain management based on PMI scores.

Given the paucity of existing research examining the effect of sex on pain management in cancer, as well as a lack of consistency among what medication data are reported and how, it is difficult to draw definitive conclusions about potential sex differences. Only Edrington et al.[17] reported detailed information about analgesic doses prescribed, as well as PMI scores. The Edrington et al.[17] study included a heterogeneous sample of cancer patients and there was considerable variability in the analgesic doses prescribed; both of these factors may have affected their ability to detect a sex effect and likely limited the generalizability of the results. Further research is warranted because existing studies have lacked methodological consistency in how potential sex differences in pain management have been examined.

The purpose of the present study was to evaluate whether sex was associated with the adequacy of pain management in patients newly referred to a multidisciplinary cancer pain clinic. We also were interested in examining whether other demographic factors, such as age and education, and other clinical factors, such as stage of disease, were associated with patients' pain severity and the adequacy of pain management.

Materials and Methods

Participants

Participants were individuals with a diagnosis of cancer referred by their primary oncology team at the Moffitt Cancer Center at the University of South Florida to the multidisciplinary cancer pain clinic within the Moffitt Cancer Center. Pain management services are available to cancer patients who are in active treatment or who are being seen for routine surveillance by their primary team. There are no formal criteria for making a referral; referrals are typically made when the primary team believes the patient needs more specialized pain management services or when the patient requests that the referral be made. Specific eligibility criteria for the study were that participants: (a) be at least 18 years of age, (b) have no documented or observable psychiatric or neurological disorders that would interfere with study participation (e.g., dementia or psychosis), (c) be able to speak and read standard English, and (d) provide written informed consent.

Procedure

The Institutional Review Board at the University of South Florida approved the study. Eligible participants were identified through the computerized appointment system at the Moffitt Cancer Center. Approximately two weeks prior to their scheduled pain clinic appointment, patients were mailed an introductory letter and packet of self-report questionnaires. A toll-free number was included and patients were asked to leave a message at this number if they did not wish to participate. Patients were contacted by telephone two days before their scheduled appointment to determine whether or not they would be willing to complete the questionnaires and bring the packet with them to their appointment. At their appointment, written informed consent was obtained and the completed questionnaires were collected.

Of the 161 patients who met eligibility criteria and agreed to participate, 131 (81%) completed the assessment just prior to their multidisciplinary cancer pain clinic appointment.

Measures

Demographic Data. Demographic data were obtained via a standard self-report questionnaire.