

Pain Education for Minority Patients with Cancer

Anderson KO, Mendoza TR, Payne R, et al. Pain education for underserved minority cancer patients: a randomized controlled trial. *J Clin Oncol* 2004;22:4918–25.

Study Overview

Objective. To assess the efficacy of a pain education intervention for underserved minority patients with cancer.

Design. Randomized trial.

Setting and participants. Between 1998 and 2002, underserved African American and Hispanic American patients with chronic cancer-related pain at multiple outpatient centers were randomized by study site and minority group to either an education group or a control group. Education group patients received a culture- and gender-specific video and booklet on pain management; control group patients received a video and booklet focused on nutrition. "Underserved" was defined as having a low income. A bilingual, trained research nurse reviewed materials with each patient in both groups. The nurse also called the patient within 72 hours of the clinic visit to review the patient's pain control or nutritional status depending on group assignment. All patients received the pain management interventions usually given by the clinic staff. The patients' physicians also provided their assessments of the patients' pain.

Main outcome measures. Changes in pain intensity and pain-related interference assessed at follow-up during weeks 2 to 10. Secondary measures included changes in quality of life, perceived pain control, functional status, analgesics, and physician pain assessments. The physicians were blind to the patients' group assignments.

Main results. 97 patients were enrolled. Patients had similar baseline characteristics; however, the control group had more patients with good Eastern Cooperative Oncology Group performance status. 68% of patients in the educational group and 72% in the control group reported severe pain intensity at baseline. Physicians underestimated baseline pain intensity in both groups, but this was more prominent in the education group as compared with the control group ($P < 0.05$). As well, physicians provided inadequate analgesics for more than half of all patients at baseline. Pain intensity and pain interference decreased over time for both cohorts, but there was no statistically significant difference

between groups. There was no significant effect in terms of group assignment, and no group-by-time interaction. Pain education did not significantly impact quality of life, perceived pain control, or functional status. African American patients in the education group, but not the control group, reported a significant decrease in severe pain from baseline to first follow-up ($P < 0.01$), although this decrease was not maintained at later assessments.

Conclusion. Brief pain education had limited impact on pain outcomes for underserved minority patients with cancer-related pain.

Commentary

Pain is a common symptom of cancer. It often results from disease progression, but it may be treatment-related as well (eg, chemotherapy-induced neuropathy, postsurgical). Treating pain is a priority for oncologists, but unfortunately over 40% of patients receive inadequate pain control [1,2]. Underserved minority populations are among the highest at-risk groups for poor pain control. One effort to address this problem has focused on improving pain education for minority patients. Teaching individuals how to recognize, describe, and rate cancer-related pain while addressing concerns about analgesic addiction and side effects could potentially improve consistent appropriate pain management by health care providers.

Anderson et al's randomized trial assessed the role of a pain education intervention in an underserved minority population of patients with cancer-related pain. The majority (two thirds) of screened patients did not enroll over the 4-year period, underscoring a major barrier to studying pain in patients with cancer. Therefore, the trial was relatively small, even though accrual spanned several medical centers in the United States in addition to Puerto Rico. The intervention included educational booklets and videos that were validated through peer-review and testing. The control arm used a nutritional intervention, which attempted to control for the one-on-one nursing and material educational components of the intervention arm.

The investigators found no overall advantage in terms of pain reduction to the educational intervention compared

with the control arm. In fact, at the study's final assessment (week 10), patients in the control arm reported less pain than the education group. Patients in the educational arm appeared to have improved communication about their pain with their providers, given improvements in physician estimations of pain early in the study. However, this was not sustained over subsequent weeks.

The findings may be due to several factors. As the authors point out, the sample size is small, perhaps too small to highlight a statistical difference between interventions. As well, a small sample size may have contributed to selection bias, where only patients with severe and refractory pain enrolled, thus making any interventions unlikely to succeed. Another important consideration is that there may have been communication barriers between providers and patients. Although nurses were bilingual and the educational materials were validated, there may have been enough of a gap between patient and provider to negate any true benefits of the

intervention. One last concern is that patients in the control arm may have benefited from heightened pain assessment from physicians and nurses, in addition to increased self-assessment and reporting of symptoms.

Applications for Clinical Practice

Minority patients with cancer-related pain represent an especially vulnerable group in terms of inadequate pain control. Pain education likely represents an important, but not exclusive, component to comprehensive pain control.

—Review by David R. Spigel, MD

References

1. Levy MH. Pharmacologic treatment of cancer pain. *N Engl J Med* 1996;335:1124–32.
2. Cleeland CS, Gonin R, Hatfield AK, et al. Pain and its treatment in outpatients with metastatic cancer. *N Engl J Med* 1994;330:592–6.

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