

INPATIENT PAIN MANAGEMENT

INSTITUTION

The Penny George Institute for Health and Healing
Abbott Northwestern Hospital, Minneapolis, Minnesota
Allina Hospitals & Clinics

The Penny George Institute for Health and Healing provides integrative medicine (IM) across the facilities of Allina Hospitals & Clinics. The George Institute maintains one of the largest inpatient IM services in the country and an outpatient clinic at Abbott Northwestern Hospital, a 629-bed tertiary-care hospital in Minneapolis, Minnesota.

BEST PRACTICE SUBMITTED BY

Jeffery A. Dusek, PhD; Michael Finch, PhD; Gregory Plotnikoff, MD, MTS; and Lori Knutson, RN, BSN, HNB-BC

HEALTH CARE CHALLENGE

Pain control in a hospital setting typically involves the use of opioid medications and other pharmaceutical drugs that produce side effects such as respiratory depression, clouded mentation, hypotension, nausea, constipation, dizziness, and falls. The National Quality Forum's recent report, *Safe Practices for Better Healthcare—2009 Update*¹, establishes the importance of addressing both safety and quality, and queries how the current health care system can better manage pain (improve quality) while simultaneously reducing side effects (improve safety).

PROPOSED INTERVENTION

Recent systematic reviews from the Cochrane Collaboration and others indicate efficacy of various nonpharmacological, integrative approaches for pain management in hospitalized patient populations²⁻⁵, including obstetrics⁶⁻⁸, surgical, and postoperative and cancer-related nausea and vomiting^{9,10}. These approaches avoid the adverse reactions associated with the predominant reliance on opioid medications for pain management.

Consistent with the evidence, an integrative medicine intervention consisting of mind-body therapies via relaxation response, acupuncture, acupressure, massage therapy, healing touch, music therapy, aromatherapy, and/or reflexology was devised to be delivered post surgery.

PATIENT POPULATION

Hospitalized patients experiencing moderate to severe pain levels after surgery.

HOW THE PATIENTS WERE SELECTED FOR THE INTERVENTION

The George Institute receives referrals from physicians and nurses (MD, DO, RN, CNP, and CNS) on a daily basis. A patient, family, or friend can request



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a referral, but a nurse or physician must approve and submit the referral through the hospital's EPIC-based electronic health record (EHR). Providers can make a referral for any reason; however, the George Institute has preferred referral guidelines for pain, anxiety/stress, elimination problems, nausea or vomiting, and coping with changes in health and wellbeing. Once a referral is submitted, patients are expected to receive services within 24 to 48 hours of referral.

DESCRIPTION OF THE PROGRAM

The integrative medicine (IM) sessions average 25 minutes in duration and are provided in patients' rooms at no expense to patients. These services include mind-body therapies via relaxation response, acupuncture, acupressure, massage therapy, healing touch, music therapy, aromatherapy, or reflexology.

Patient populations receive IM in 6 areas of the hospital including cardiovascular, medical/surgical, orthopedics and spine, neurology and acute care rehabilitation, oncology, and women's health. New referrals are assigned to an appropriate IM provider, who serves as the care coordinator for the duration of the hospital stay. Ongoing referrals are overseen by the established care coordinator. However, various IM providers may see the patient throughout their hospital stay, depending on the established plan of care and determination of appropriate services.

Each patient's initial pain is recorded on a scale of 0 to 10 (with 10 being the most severe pain). After treatment by the IM practitioner, patients report their pain on the scale of 0 to 10. Practitioners are free to use their clinical judgment to provide whatever mix of therapies, within their scope of practice, they deem necessary and therapeutic.

The IM practitioners routinely round with conventional medical practitioners to ensure consistency and coordination of care. Providers chart their visits in the EHR throughout the day at clinical work stations throughout the hospital.

WHAT HEALTH CARE PROVIDERS DELIVER THE PRACTICE AND HOW THEY ARE CREDENTIALLED

The George Institute employs a total of 21 IM practitioners, including 6 registered nurses board-certified in both their specialty area (e.g., oncology, cardiovascular) and holistic nursing, 6 licensed Oriental medicine practitioners, 8 certified massage therapists with an emphasis on acute care massage, and 1 certified music therapist.

Practitioners are trained in the principles of IM, the multiple modalities as previously noted, the provision of services based on individual patient needs, and effective collaboration and coordination with other medical professionals.

The IM practitioners are all hospital staff on salary.

PATIENT DEMOGRAPHICS

An observational study focused on patients who were hospitalized between January 1, 2008, and June 30, 2009, and received services from an IM practitioner for which both pre-treatment and post-treatment pain scores were available. The resulting dataset included data for 1,837 patients.

Patients seen by IM practitioners were younger, with a mean age of 47.1 (SD, 16.9) compared with 55.9 (SD, 20.7) for all patients at Abbott Northwestern during this period. A higher proportion of female patients received integrative therapies (78.8%) compared with the percentage of female patients at the hospital (58.5%) and those receiving integrative care had shorter length of stays (3.99 as opposed to 4.41). Approximately 66% of the patients reported that this was the first time that they had ever received integrative therapies.

OUTCOMES DATA

The average reduction in self-reported pain was 1.9 on a scale of 0 to 10. Although this average decrease in pain scores is important, initial levels of pain vary from patient to patient. Thus, a more useful measure of pain management is the percentage reduction in pain, which is derived for each patient's initial level of

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pain. The resulting average reduction in pain across all patients was 55.8%.

Thus, the provision of IM had immediate and beneficial effects on pain among hospitalized patients.

These findings are consistent with those found in numerous randomized trials of hospitalized patient populations. Briefly, Tusek (1999) found that a multi-day guided imagery intervention managed pretreatment to post-treatment pain scores after cardiac surgery relative to control condition.¹¹ In 2000, Lang and colleagues reported in *The Lancet* that hypnosis managed pain scores significantly better than a control condition during percutaneous vascular and renal procedures.¹² Several other trials have shown that massage therapy significantly impacts pain scores and pain medications in cancer and surgical populations.^{13–16}

Our results extend previous knowledge by demonstrating that integrative care reduces immediate pain levels by more than 50% and that it can be provided as part of routine clinical care across numerous patient populations including cardiovascular, medical/surgical, orthopedics and spine, acute care rehabilitation, oncology, and women's health.



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