The Effects of Healing Touch on Pain, Nausea, and Anxiety Following Bariatric Surgery: A Pilot Study

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Context: Given the growth in the number of bariatric surgeries, it is important for healthcare practitioners to maximize symptom management for these patients, including the option of complementary therapies such as Healing Touch.

Objective: A quasi-experimental study was conducted to determine the feasibility of a Healing Touch intervention for reducing pain, nausea, and anxiety in patients undergoing laparoscopic bariatric surgery.

Design: Following surgery, a nurse administered the Healing Touch intervention once daily. Study participants reported levels of pain, nausea, and anxiety immediately before and after the Healing Touch intervention using separate numeric rating scales.

Results: Significant decreases in pain, nausea, and anxiety were observed immediately following the intervention on post-operative days one and two, and in pain and anxiety on post-operative day three compared with pre-intervention levels. These findings indicate that the Healing Touch intervention is feasible and acceptable to patients undergoing bariatric surgery, and significantly improved pain, nausea, and anxiety in these patients.

Key words: Healing Touch, pain, surgery, nausea, nurse

(Explore 2015; 11:208-216 © 2015 Elsevier Inc. All rights reserved.)

INTRODUCTION

Obesity has become an epidemic worldwide, with an estimated 1.5 billion adults overweight (BMI $\geq$ 25) and 500 million adults obese (BMI $\geq$ 30) in 2008.[1] In the U.S., the prevalence of obesity is estimated at 34% of the population.[1] The rise in the incidence of obesity is closely related to increased prevalence of comorbidities, including type 2 diabetes, hyperlipidemia, hypertension, heart disease, and sleep apnea, which contribute to a decrease in life expectancy of 10 or more years.[2] Until the development of a less invasive, successful, long-term intervention to counter the effects of obesity, bariatric surgery (including gastric bypass, gastric sleeve, and gastric banding) will continue to be used, potentially at increased rates. Indeed, the annual number of bariatric surgeries performed in the U.S. has increased to approximately 200,000 in the last decade.[3]

Post-operative pain control continues to be managed ineffectively after surgical procedures[4,5] and can have deleterious effects on patient recovery and satisfaction.[6] Abdominal pain is one of the most common symptoms experienced by patients following bariatric surgery. Strategies to reduce opioid use in this patient population are highly desirable.[7,8] There is a high prevalence of obstructive sleep apnea among these patients, and the use of opioids to manage post-operative pain can lead to complications related to the development of adverse respiratory events.[9,10] Additionally, opioid use is inversely related to the quality of recovery from surgery,[11] and there is a relationship between opioid-sparing strategies and better patient outcomes.[12,13] Pain management is recognized as a quality measure for optimal care by the Joint Commission,[14] which emphasizes alternatives to pharmacological interventions in the management of patient comfort, pain control, and health-related quality of life (HQoL).[15] Therefore, patients may require more than prescription medication for pain relief or comfort.

Obesity is associated with mood disorders and anxiety disorders[16] and is correlated with a significant increase in lifetime diagnoses of major depression and panic disorders.[16] Obese subjects seeking treatment have been shown to have more psychopathologies, including anxiety and depression, than normal-weight controls.[16] Moreover, those persons seeking medical treatment of obesity, including bariatric surgery, have higher rates of anxiety disorders than those seeking behavioral-based treatments for weight loss.[17] Although the results are equivocal, most studies point to a decrease in weight-loss outcomes following surgery in

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ISSN 1550-8307/$36.00

http://dx.doi.org/10.1016/j.explore.2015.02.006

patients with higher levels of anxiety.[18] Still, most studies point to a decrease in overall weight lost following the surgery in those with anxiety disorders or higher levels of anxiety.[16] Given the life-changing nature of bariatric surgery and the prevalence of anxiety disorders among this patient population, patients undergoing this surgical procedure can exhibit high levels of anxiety during the perioperative experience.

Post-operative nausea and vomiting remain primary factors related to dissatisfaction with the perioperative experience in patients undergoing laparoscopic bariatric surgery.[19] Pharmacological advances in treatment of post-operative nausea and vomiting have met with limited success.[20] One-third to one-fifth of this patient population continue to have significant post-operative nausea and vomiting despite prophylactic treatment using frontline anti-emetics.[21] Post-operative nausea and vomiting are associated with significant perioperative morbidity in terms of dehydration, electrolyte imbalance, hypertension, and potential aspiration. Current available interventions for post-operative nausea lack universal effectiveness.[22] Although these pharmacological treatments may decrease the incidence of vomiting, these treatments have little to no effects on patients' ratings of nausea.[20] Given these findings, holistic and integrative care can offer other aspects of symptom management for these patients that may be neglected by conventional treatment. One such integrative modality that holds promise for improving outcomes in this patient population is Healing Touch.

Healing Touch (HT) arose in the nursing field and is described as a patient-centered modality in which the practitioner and recipient participate jointly in the healing process.[23,24] Biofield therapies, such as HT, are categorized as mind–body therapies and involve the direction of healing energy through the practitioner's hands to facilitate general health and well-being by modifying the patient's energy field.[25,26] These biofield modalities are most demonstrable when used to treat symptoms affecting patient-centered outcomes encompassing HQoL. To date, most published research on the use of biofield therapies, including HT, in clinical settings and studies has been among cancer, pain, and palliative care patients.[27] While several studies have demonstrated the effectiveness of energy-based healing modalities in reducing generalized pain,[27–35] most of these studies focused on the benefits and effectiveness of Therapeutic Touch rather than HT, and none have focused on symptom management in patients undergoing bariatric surgery. Recent reviews and meta-analyses have found many biofield studies, including HT, to be promising enough to warrant further research,[36] including a recent Cochrane review that found biofield therapies to be effective for managing pain.[37]

Given the potential effectiveness in improving HQoL, these modalities represent an untapped resource for improving patient-centered outcomes, complementing conventional care models.[38–40] While HT studies have examined some clinical endpoints in the inpatient setting,[41–44] no study to date has examined the impact of nurses' delivery of HT in the acute care setting on pain and other patient-centered outcomes in persons undergoing bariatric surgery. Thus, the aim of the proposed study was to determine the effectiveness of a HT intervention for reducing length of stay, use of pain and nausea medications, hospital complications (coded complication, infections, extended LOS, and additional surgery), pain, stress, anxiety, and nausea in patients undergoing laparoscopic bariatric surgery (gastric bypass/Roux-en-Y or gastric sleeve), using a quasi-experimental study design.

METHODS

Study Sample

Participants in the Healing Touch intervention group were recruited from a mid-Atlantic, mid-sized hospital during pre-operative bariatric surgery education classes. A total of 46 participants were recruited for the study (Figure 1). For the Healing Touch intervention group, 21 patients age $\geq$ 18 years scheduled for laparoscopic bariatric surgery were enrolled. For the control comparison group, 25 patients who underwent surgery during the three months prior to the intervention period were identified and matched by age, sex, BMI, and type of surgery to participants in the intervention group. Data concerning the outcomes outlined below were obtained from the electronic medical record for both groups. Inclusion criteria were (1) scheduled for laparoscopic bariatric surgery (gastric bypass/Roux-en-Y or gastric sleeve), (2) the ability to ensure informed consent and completion of assessments, and (3) the ability to speak and understand English. Exclusion criteria included (1) prior regular use of Healing Touch (>one session/month) within three months of enrolling in the study and (2) concurrent Healing Touch or other mind–body/biofield therapy outside of the study protocol. All participants provided informed consent, and all study procedures were approved by the health system Institutional Review Board.

Recruitment

Patients scheduled for laparoscopic bariatric surgery (gastric bypass/Roux-en-Y or gastric sleeve) were introduced to and informed of the study by a member of the study team during pre-operative patient education sessions. An overview of the study was presented, as well as the pros and cons of study participation. Once screened for eligibility, a member of the study team provided informed consent during these patient education sessions and collected baseline data as outlined below.

Healing Touch Intervention

Following surgery and admission to the surgical unit, a nurse on the unit trained in Healing Touch and familiar with the study protocol delivered the Healing Touch intervention. The Healing Touch intervention used was modified from the *Magnetic Clearing* technique learned during the first level of Healing Touch training. *Magnetic Clearing* is a full-body technique used to clear the entire biofield, reducing nausea and pain.[45] The intervention was designed for ease of use in the inpatient setting and took approximately seven minutes to complete. During each 24-h period of a participant's inpatient stay, a nurse on the unit trained in Healing Touch and familiar with the study protocol delivered the Healing Touch intervention. Immediately before and immediately following the Healing Touch