

INTRODUCTION

A significant number of osteopathic manipulative medicine (OMM) consults in the hospital are placed for musculoskeletal (MSK) reasons.^{1,2} Despite having a hospital-based OMM service, medical staff lack knowledge about OMM's use in the hospital setting and may be unaware of the potential benefits of osteopathic manipulative treatment (OMT) for other significant medical diagnoses.³

Research has shown improved outcomes or decreased length of stay (LOS) with OMT for diagnoses including postoperative ileus (POI),⁴ pneumonia,^{5,6} postoperative coronary artery bypass graft patients (CABG),⁷ and neonatal feeding difficulty.⁸

- Abdominal wall focused OMT has shown to decrease time to first flatus,⁹ and LOS by 5.4 days (p-value 0.06).⁴
- Noll et al.⁶ was able to show a decreased duration of antibiotic therapy of 6.1 days (p-value 0.003) and LOS of 6.6 days (p-value 0.014) in patient with pneumonia.
- OMT has been shown to decrease LOS in cardiac surgery by 2.6 days (19.1 +/- 4.8 days; p-value 0.04).⁷
- In a hospital study, infants who received OMT had improved LATCH scores (9.22 +/- 0.92; p-value 0.001).¹⁰

OBJECTIVES

1. To determine whether targeted education to medical staff increases the proportion of OMM consults for non-MSK reasons.
2. To assess the comfort and knowledge of the medical staff on describing OMT to the hospitalized patient and suggesting appropriate inpatient OMT consults, before and after education.

METHODS

Study design

- Quality improvement (QI) project with retrospective chart review through the Samaritan Health system and cross-sectional survey.
- Reviewed by SHS IRB as Category 4 Exempt

Study subjects

- Study Aim 1: Patients admitted to GSRMC in Corvallis, Oregon between July 2019 and July 2020 who were treated by the OMM service.
- Study Aim 2: Medical staff (physicians & nurses) at GSRMC who attended our educational intervention and completed a survey.

Implementation plan

- Provided education presentation at medical staff meetings in January & February 2020 about specific diagnoses for which OMT has been shown to be an efficacious treatment.
- Provided a four-question paper-based survey to the medical staff immediately after the presentation.
- Manually reviewed inpatient charts with consults for the OMM service, to determine the reason for the consult 6-months before and 2-months after targeted education. Charts were categorized into MSK, non-MSK, OBGYN, or pediatrics diagnoses. Data was analyzed using a chi-squared test to determine whether the proportion of non-MSK related consults changed from pre to post.

RESULTS

- 40 medical staff (22 MD/DO, 14 nurses, 4 other/unknown) attended the educational sessions and responded to the survey.
- 90% of staff knew what OMT was before education, but 82% felt that education improved their ability to describe OMT to patients and 78% felt the education made them more likely to request OMT.
- Staff indicated that, historically, they consulted OMM most commonly for Chronic Back Pain (58% of staff) and Headaches (43%), while only 25% had consulted OMM for POI, pneumonia, neonatal feeding, or laboring/postpartum, and 38% had never requested OMM for any of these reasons. (Figure 1)
- Reasons for inpatient OMM consult were reviewed for 6 months pre-intervention (N=249) and 2 months post-intervention (N=71). The proportion of OMM consults for MSK reasons decreased from 56% to 51%. The odds of OMM consult for MSK reasons did not significantly change after the intervention (p=0.4). (Figure 2)

Figure 2. Reasons for OMM consult

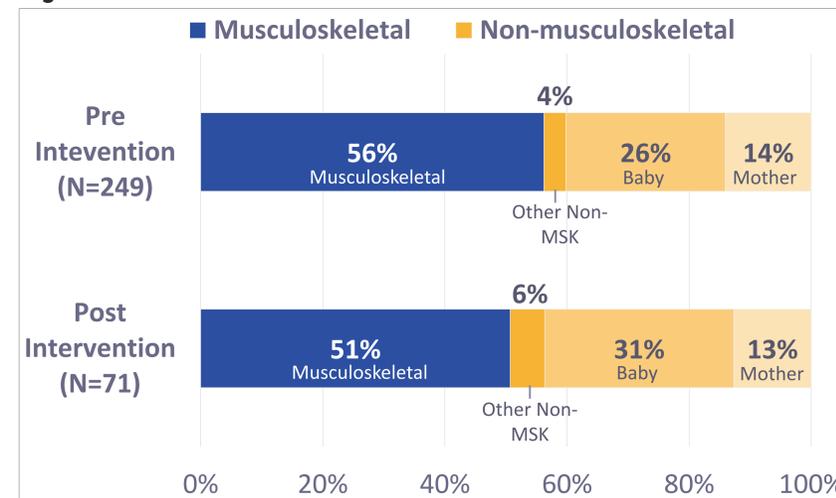
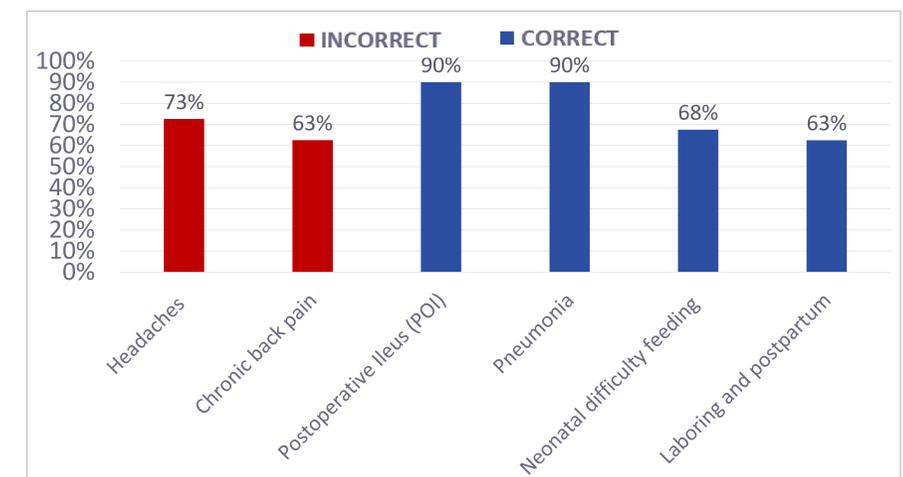


Figure 1. Post education results for appropriate inpatient OMM consults



CONCLUSIONS

Targeted education improved understanding of OMM among medical staff and improved comfort in describing OMT in interactions with patients. Although the proportion of MSK versus non-MSK diagnoses were not statistically significant, it is important to bring awareness and knowledge about the benefits of OMT into the hospital setting. The implementation of education was well received and created a good discussion about the benefits of OMT in the hospital setting. This study was limited by the timeframe of data collection and the small target sample size for medical staff. Medical staff who are most likely to consult the OMT service were selected; however, given limitations with nurses placing consults, it may be more beneficial to focus on physicians only.

FUTURE IMPLICATIONS

This study is limited by implementation at a single hospital and a short data collection timeframe; however, there is potential for implementing an annual educational session or replicating education at other hospitals.

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