Integration of Life Care Specialists Into Orthopaedic Trauma Care to Improve Postoperative Outcomes: A Pilot Study

Patients with orthopaedic injuries are particularly vulnerable to experiencing poor pain outcomes and opioid-related risks after an acute injury. This pilot study assessed the feasibility and impact of integrating a Life Care Specialist (LCS) into orthopaedic trauma care settings.

The LCS is a paraprofessional behavior-based “pain coach” who delivers patient-centered opioid safety education, trains patients on nonpharmacologic pain management approaches, conducts opioid risk assessments, and assists with coordinating care.

Methods:
- Prospective feasibility pilot study at a level 1 trauma center.
- Christopher Wolf Crusade, a nonprofit, trained all LCS in an immersive curriculum, which included shadowing multidisciplinary professionals and didactic coursework.
- LCS deliver personalized patient-centered interventions encompassing three main components: 1) Non-pharmacologic pain management strategies; 2) Opioid education; 3) Coordination of care and referrals (Fig. 1).
- Key outcomes included pain scores and morphine milligram equivalents (MME), or opioid dosages, measured from intake, during hospitalization, and at 2-week follow-up.

Findings:
- Twenty-two percent of 121 total participants met criteria for moderate to severe risk of opioid misuse at initial hospitalization.
- On average, 2.8 LCS pain management interventions were utilized, most frequently progressive muscle relaxation (80%) and sound therapy (48%).
- Mean inpatient MME/day was 40.5, which was significantly lower than mean historical MME/day of 49.7 (p < .001).
- Pain scores improved over time from admission to 2-weeks postoperatively (p < .001).
- Nearly all participants agreed that the LCS was helpful in managing pain (99%).

Discussion:
This study found that integrating LCS into orthopedic trauma care is feasible in both inpatient and ambulatory settings. Participants who worked with an LCS reported improved pain and less on-going opioid utilization 2-weeks postoperatively. Participants reported high satisfaction working with an LCS. Collectively these findings underscore both the feasibility and impact of implementing an LCS into orthopaedic trauma care settings.