

Background

Patients who comply with pre- and post-operative physical therapy show improvements in pain, functioning, and quality of life. Physical therapy non-compliance rates following orthopedic surgery can be variable, with reports ranging from 27% to 36%. Physical therapy in the pre-operative time period is rarely addressed in the literature, especially in closed urban settings where patients may face barriers to access. This study focuses on non-surgical and pre-surgical physical therapy compliance rates in sports medicine and arthroplasty patients and how these rates correlate with pain improvement in a single institution closed urban setting.

Methods

A representative sample of patients prescribed non-operative or pre-operative physical therapy between 2023-2024 from two sports medicine and two arthroplasty surgeons was collected from our institution. The data originated from electronic health records and reviewed 50 patients from each doctor for a total sample of 200. Compliance data was categorized by: No Compliance (0%), Very Low Compliance (0-25%), Low Compliance (25-50%), Moderate Compliance (50-75%), and High Compliance (75-100%) based on the number of visits attended and the number of visits prescribed. We defined non-compliant patients as those with a 0-25% compliance rate. Patient-reported pain scales (0-10) from the initial and final physical therapy sessions were used to determine a change-in-pain score for each patient.

Results

Within 2023-2024, we found a 60% physical therapy non-compliance rate among all patients, irrespective of the physician. Compared to other reported data, PT non-compliance in this closed urban setting is significantly higher. There were comparable non-compliance rates between sports medicine patients and arthroplasty patients, with rates of 63% and 57.6% respectively. However, sports medicine patients demonstrated a significant positive correlation between pain improvement and compliance rate, while no such relationship existed for arthroplasty patients.

Conclusions

Though physical therapy has demonstrated clinical significance as well as subjective pain reduction for some patients, it is most beneficial for sports medicine patients with high rates of compliance. With a lower observed pain reduction for pre-operative arthroplasty patients despite similar compliance rates, there seems to be less necessity for physical therapy before surgical candidacy is determined. Our findings suggest it is beneficial to recommend patients for other therapy options that are more convenient and accessible with a similar impact as traditional physical therapy.