Evaluation of Patient Satisfaction With Physical Therapy Following Primary THA

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abstract

Physical therapy following total hip arthroplasty (THA) is intended to maximize a patient's range of motion and function and improve the quality of life. No universally accepted standard of care exists for physical therapy among physicians or therapists. However, it may be crucial to enhance efforts to more fully elucidate contributing parameters that affect patient experiences. The purpose of this study was to evaluate various factors contributing to patient satisfaction with postoperative physical therapy. One hundred consecutive patients (110 hips) who underwent THA were prospectively surveyed for satisfaction with postoperative physical therapy. All surveys were filled out anonymously by the patients, and investigators were blinded to clinical outcomes and who was surveyed. Seventy-six percent of patients reported being satisfied with their rehabilitation experiences. Factors, including patient age and sex, duration of therapy, number of patients per session, continuity of care with the same therapist, amount of hands-on time spent with the therapist, number of patients per session, and total number of sessions completed, were significantly correlated with patient satisfaction. Co-pay amount did not significantly affect patient satisfaction. These factors may be underappreciated by physicians and physical therapists. To maximize patient satisfaction with physical therapy, physicians should identify institutions whose therapists are willing to spend adequate hands-on time during one-on-one or small-group sessions while maintaining the greatest possible continuity of care with a single provider.
Total hip arthroplasty (THA) is one of the most efficacious orthopedic reconstructive procedures and is often indicated to improve function and ameliorate degenerative arthritis symptoms in patients who failed nonoperative management. After discharge from in-hospital care, patients are commonly referred to physical therapy and rehabilitation to improve range of motion, strength, and activities of daily living. In recent years, this referral tendency has increased in association with earlier patient discharge, reduced length of hospital stay, and greater emphasis on the necessity of postoperative physical therapy. However, marked variations exist in rehabilitation protocols, specifically in the timing, setting, and duration of physical therapy. Although patients who undergo surgery continually report higher satisfaction rates than patients who receive nonoperative management, long-term self-reported satisfaction in quality of life and hip functionality often remains unsatisfactory.

Several reports have attempted to objectively quantify the measures of functional improvement and compare the quality of enhancement of activities of daily living with physical therapy. Sharma et al questioned the long-term benefits of such intervention based on a lack of prospective, randomized, clinical trials and a failure to use evidence-based therapy protocols. Although these studies have focused on tangible improvements in patient function following physical therapy, few have adopted a patient-centered perspective emphasizing expectations or satisfaction. This paucity of data may in part be due to the confounders a study must overcome to differentiate between a patient’s perception of the initial surgery vs the physical therapy experience. At the current authors’ institution, all patients are referred to physical therapy, and discourse with their patients has heightened their awareness of dissatisfaction regarding this experience. As the trend in physical therapy referral following THA increases, it is crucial to enhance efforts to elucidate the various factors that affect patient experiences.

The purpose of this study was to further evaluate the various factors contributing to patient satisfaction with postoperative physical therapy. Patients completed a survey that allowed the authors to assess: (1) what percentage of patients who underwent THA were satisfied with their physical therapy experience, (2) if a correlation existed between the duration of each therapy session and patient satisfaction, (3) if an association existed between the number of therapists from whom patients had received physical therapy and patient satisfaction, (4) if a correlation existed between the amount of time spent with the therapist vs therapist aides and patient satisfaction, (5) if a correlation existed between the number of patients in each therapy session and patient satisfaction, (6) if a relationship existed between the total number of completed therapy sessions and patient satisfaction, and (7) if a correlation existed between the co-pay amounts for physical therapy and patient satisfaction.

**Materials and Methods**

A prospective analysis was conducted on 100 consecutive patients (110 hips) who underwent primary THA. All surveys were completed anonymously, and investigators (Q.N., A.J.J.) were blinded to the clinical outcomes and the patients who were surveyed.

All operations were performed by an experienced adult reconstructive surgeon (M.A.M.) at a high-volume institution. Patients were surveyed between May and November 2011 when they presented for their regularly scheduled follow-up with the senior author (M.A.M.) at 12±2 weeks postoperatively. The study population included 36 men and 64 women with a mean age of 53 years (range, 15-88 years) at surgery. All patients were followed for a minimum of 1 year. Review board approval was obtained from the the authors’ institution.

All patients completed a survey that assessed demographics, including age and sex, and questions designed to elicitate patient satisfaction, duration of each therapy session, number of therapists for whom a patient had received intervention, amount of hands-on time the patient spent with the therapist vs therapist aides, number of additional patients in each therapy session, total number of therapy sessions completed, and whether any previous revision surgery had been performed. Patients identified their satisfaction level in a 5-tier system: completely not satisfied, not satisfied, neutral, satisfied, or very satisfied. To evaluate whether financial status for paying for physical therapy affected patient satisfaction, the authors also analyzed patient co-pay amounts.

Patient outcomes were further stratified into 2 categories: patients who were satisfied vs unsatisfied with physical therapy. Patients were considered satisfied if they selected very satisfied or satisfied with their physical therapy experiences; otherwise, they were considered unsatisfied. Patients were grouped according to which answer they selected. No reoperations or manipulations under anesthesia were performed in any patient at a minimum 1-year follow-up.

All statistics were recorded using an Excel spreadsheet (Microsoft Corporation, Redmond, Washington). Descriptive statistics were performed using Fisher’s exact test and Student’s t test to evaluate the significance of survey responses between satisfied and unsatisfied patients. A P value less than .05 was considered statistically significant.

**Results**

Survey results revealed that 76% of patients were satisfied with their postoperative physical therapy experience. This cohort included 40 men and 36 women with a mean age of 55 years (range, 18-81 years) at surgery. In contrast, 24% of patients reported being unsatisfied with their physical therapy experience. This cohort
A significant relationship also existed between the number of therapy sessions completed and patient satisfaction (P = .03). Satisfied patients completed a mean of 18 therapy sessions (range, 2-55 sessions), whereas unsatisfied patients reported completing a mean of 13 therapy sessions (range, 3-36 sessions).

No significant difference existed in the co-pay amount for physical therapy between patients who were satisfied or unsatisfied with physical therapy (P = .64). Patients who were satisfied with therapy paid a mean co-pay amount of $12 (range, $0-$35) per therapy session, whereas patients who were unsatisfied paid a mean co-pay amount of $13 (range, $0-$30) per therapy session.

**DISCUSSION**

Physical therapy following THA is intended to maximize range of motion, strength, and function and improve quality of life. No universally accepted standard of care for physical therapy currently exists among physicians or therapists. Previous studies primarily reported tangible outcomes related to clinical function, providing little insight into factors contributing to patient expectations and satisfaction.

The results of this study are in concordance with previous reports demonstrating correlations between patient satisfaction and multiple characteristics of their physical therapy. Westby and Backman reported the experiences of a group of providers (n = 44) and patients (n = 32) with rehabilitation practices following total hip and knee arthroplasties. Although the ratio of satisfaction among patients was not assessed, it was reported that patients may value a variety of non-clinical features during physical therapy. The quality of physical therapy was frequently thought to be poor and more detrimental to patient recovery than helpful. In addition, a lack of effective communication, duration of therapy, convenience of access, and limitations on frequency of access to supervised therapy were influential factors in patient satisfaction.

A discrepancy also existed in the amount of hands-on time that the patient spent with physical therapists vs therapist aides (P = .03). Satisfied patients spent an average of 75% of each session working with their physical therapist, whereas unsatisfied patients spent an average of 51% of each session working with their physical therapist.

An inverse correlation existed between patient satisfaction and the number of therapists from whom the patients received physical therapy (P = .01). Satisfied patients received therapy from a mean of 2 therapists (range, 1-4 therapists), whereas unsatisfied patients received therapy from a mean of 3 therapists (range, 1-6 therapists).

A significant inverse correlation was identified between patient satisfaction and the number of other patients participating in the therapy session (P = .03). Satisfied patients identified a mean of 2 patients (range, 1-4 patients) participating in each session, whereas unsatisfied patients reported a mean of 3 patients (range, 1-6 patients) participating in each therapy session.

<table>
<thead>
<tr>
<th>Evaluated Metric</th>
<th>Satisfied Patients</th>
<th>Unsatisfied Patients</th>
<th>P</th>
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<tbody>
<tr>
<td>Percentage of patients</td>
<td>76</td>
<td>24</td>
<td>.03</td>
</tr>
<tr>
<td>Mean age (range), y</td>
<td>55 (18-81)</td>
<td>41 (19-67)</td>
<td>.03</td>
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<tr>
<td>No. of M:F</td>
<td>40:36</td>
<td>19:5</td>
<td>.03</td>
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<td>Mean time spent directly with the therapist (range), min</td>
<td>60 (25-120)</td>
<td>44 (15-75)</td>
<td>.01</td>
</tr>
<tr>
<td>No. of therapists who provided rehabilitation (range)</td>
<td>2 (1-4)</td>
<td>3 (1-6)</td>
<td>.01</td>
</tr>
<tr>
<td>Hands-on time spent directly with the therapist (range), %</td>
<td>75</td>
<td>51</td>
<td>.03</td>
</tr>
<tr>
<td>Mean No. of patients per therapy session (range)</td>
<td>2 (1-4)</td>
<td>3 (1-6)</td>
<td>.03</td>
</tr>
<tr>
<td>No. of sessions completed (range)</td>
<td>18 (2-55)</td>
<td>13 (3-36)</td>
<td>.03</td>
</tr>
<tr>
<td>Mean co-pay (range), $</td>
<td>12 (0-35)</td>
<td>13 (0-30)</td>
<td>.64</td>
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*Statistically significant between satisfied and unsatisfied patients.
the results of satisfaction with rehabilitation in 1502 patients and concluded that more than 71% of patients who were satisfied with physical therapy had longitudinal continuity of care with the same provider. In addition, patients who had received the entire course of therapy from 1 therapist were 3 times more likely to report satisfaction. They also reported that a higher proportion of women compared with men were satisfied with their physical therapy \( (P = .01) \). In a cross-sectional survey of 147 patients who underwent THA, Mark-er et al reported that patients who were committed to their rehabilitation had better clinical outcomes and higher satisfaction. They also reported lower satisfaction in men compared with women. Grissom and Dunagan prospectively evaluated patient satisfaction during in-patient physical therapy after total hip and knee arthroplasty. They reported improvement in satisfaction to 92% from a baseline of 77% when patients received consistent care from the same staff and therapists. Similarly, the current study showed higher satisfaction rates with physical therapy for women compared with men.

Heaton et al reported the experiences of 58 patients with a mean age of 68 years (range, 40-89 years) who underwent primary THA followed by in-patient physical therapy and postoperative physiotherapy and exercise classes. They reported that most patients were satisfied with their experience overall (no percentages were reported). However, they also reported a few patients who believed they would have benefited from additional exercises, more hands-on time with their physical therapists, smaller classes, and more qualified physiotherapists. Four of 58 patients were unsatisfied with their experiences; 2 patients reported that physical therapists were unable to help them, 1 patient reported the waiting was too long for an opportunity to be referred for therapy, and 1 patient reported a lack of follow-up therapy after discharge. Similarly, the current study showed that unsatisfied patients had spent less hands-on time with their physical therapists in bigger therapy groups compared with satisfied patients.

Several limitations existed in the current study. Satisfaction levels are a subjective measurement based on self-reported experiences. This is inherently a relative measurement because patients may respond differently to the same obstacles during the course of therapy. Because no clinical assessment of the THA was performed, global dissatisfaction may have been due to dissatisfaction with the clinical results instead of physical therapy. It is possible that some patients were going to fail their THA with longer follow-ups; however, to the best of the authors’ knowledge, no patient has failed. Comorbidities were also not compared between the satisfied and unsatis-\( _fied \) patients, which may have provided a confounding variable. No universally accepted standardized survey exists to evaluate patient satisfaction with physical therapy. Therefore, the authors created a graduated system to help patients express their experiences with physical therapy. Despite these limitations, these results can provide valuable insight into the nonclinical factors contributing to patient satisfaction with physical therapy following THA. Additional prospective multicenter studies are warranted to further validate whether a correlation exists between patient satisfaction with physical therapy and the clinical outcome.

CONCLUSION

Currently, no universally accepted protocol exists for rehabilitation therapy following THA. Furthermore, no agreed-upon standard of care exists regarding the efficacy of patient-therapist interactions or intervention duration. In this study, 1 in 4 patients who underwent primary THA were dissatisfied with their physical therapy experiences. Several previously studied factors were positively correlated with patient satisfaction, including longitudinal continuity of care, smaller group therapy sessions, increased hands-on time with the physical therapist, and total number of therapy sessions completed. These factors substantially influenced patient satisfaction but may be underappreciated by physicians and physical therapists. To maximize patient satisfaction with physical therapy, physicians should identify institutions whose therapists are willing to spend adequate hands-on time during one-on-one or small group sessions while maintaining the greatest possible continuity of care with a single provider.

REFERENCES


