JOHN J. FRASER, PT, MS, OCS[1,2] • **NEAL R. GLAVIANO,** PhD, ATC[3] • **JAY HERTEL,** PhD, ATC[1]

Utilization of Physical Therapy Intervention Among Patients With Plantar Fasciitis in the United States

STUDY DESIGN: Retrospective observational study.

BACKGROUND: Plantar fasciitis is responsible for 1 million ambulatory patient care visits annually in the United States. Few studies have investigated practice patterns in the treatment of patients with plantar fasciitis.

OBJECTIVE: To assess physical therapist utilization and employment of manual therapy and supervised rehabilitation in the treatment of patients with plantar fasciitis.

METHODS: A retrospective review of the PearlDiver patient record database was used to evaluate physical therapist utilization and use of manual therapy and supervised rehabilitation in patients with plantar fasciitis between 2007 and 2011. An International Classification of Diseases code (728.71) was used to identify plantar fasciitis, and Current Procedural Terminology codes were used to identify evaluations (97001), manual therapy (97140), and rehabilitation services (97110, 97530, 97112).

RESULTS: A total of 819 963 unique patients diagnosed with plantar fasciitis accounted for 5 739 737 visits from 2007 to 2011, comprising 2.7% of all patients in the database. Only 7.1% (95% confidence interval: 7.0%, 7.1%) of patients received a physical therapist evaluation. Of the 57 800 patients evaluated by a physical therapist (59.8% female), 50 382 (87.2% ± 0.4%) received manual therapy, with significant increases in utilization per annum. A large proportion (89.5% ± 0.4%) received rehabilitation following physical therapist evaluation.

CONCLUSION: Despite plantar fasciitis being a frequently occurring musculoskeletal condition, a small proportion of patients with plantar fasciitis were seen by physical therapists. Most patients who were evaluated by a physical therapist received manual therapy and a course of supervised rehabilitation as part of their plan of care.

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Plantar fasciitis (PF) is a common musculoskeletal injury that affects approximately 10% of the population in their lifetime and is responsible for approximately 1 million outpatient visits annually in the United States.[11,21] Plantar fasciitis is a clinical condition that presents as sharp pain in the heel that spans from the medial border of the plantar fascia to its insertion at the medial tuberosity of the calcaneus. Pain is provoked with loading and with the initial few steps following periods of inactivity, such as rising from sleep in the morning and toward the end of the day. While PF has long been attributed to inflammation of the plantar fascia, current evidence suggests that the disease is more likely attributed to microscopic degeneration[14] and subsequent thickening[4,9] of the tissue. The diagnosis "plantar fasciosis" is utilized to more accurately reflect the degenerative nature of the condition. For the purpose of this manuscript, we will categorize plantar fasciosis and PF under the same diagnostic umbrella.

Treatment of PF often encompasses stretching, strengthening, modalities, bracing, strapping, and manual therapy (MT). In an updated clinical practice guideline published in 2014 by the Orthopaedic Section of the American Physical Therapy Association, MT and stretching were strongly recommended based on a preponderance of level I/II studies in the literature.[17] This is in stark contrast to the 2008 publication by the same organization, which recommended MT based on limited theoretical or framework evidence and moderate evidence for stretching.[18] Recent studies have found that MT, when included in a

[1]Department of Kinesiology, University of Virginia, Charlottesville, VA. [2]US Navy Medicine Professional Development Center, Bethesda, MD. [3]University of Toledo, Toledo, OH. The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the US Government. LCDR John J. Fraser is a military service member and this work was prepared as part of his official duties. Title 17, US Code, section 105 provides that "Copyright protection under this title is not available for any work of the US Government." Title 17, US Code, section 101 defines a US Government work as a work prepared by a military service member or employee of the US Government as part of that person's official duties. The authors certify that they have no affiliations with or financial involvement in any organization or entity with a direct financial interest in the subject matter or materials discussed in the article. Address correspondence to LCDR John J. Fraser, PO Box 400407, Memorial Gymnasium, Charlottesville, VA 22904. E-mail: jjf5ac@virginia.edu

comprehensive rehabilitation program, is more effective in reducing pressure pain thresholds and improving function in patients with PF when compared to comparative interventions.[1,7,20,23,26]

Despite the growth of evidence for MT and supervised rehabilitation in recent years, practice patterns often lag behind published evidence.[15] This gap between evidence and practice is multifactorial and may be attributed to a clinician's access to the evidence,[15,27] difficulty appraising the evidence,[15,27] interest and perceived role in utilizing evidence,[27] and poor self-efficacy due to lack of training or comfort level with searching, analyzing, and implementing evidence.[27] In order to properly assess the influence of research evidence on practice, study of patient characteristics within a clinical population, interdisciplinary referral patterns, and utilization of therapeutic modalities are required over time. Few published studies have reported patterns of care for patients with PF.[2,10,25]

The purpose of this retrospective observational study was to investigate the referral pattern of health care professionals to physical therapy and practice patterns of physical therapists as they specifically relate to MT and supervised rehabilitation. Secondary analysis of patient characteristics and costs associated with billed services was reported to provide a more comprehensive depiction of the clinical population and cost of care.

METHODS

The PearlDiver patient record database (PearlDiver Inc, Colorado Springs, CO) was utilized for this retrospective chart review. PearlDiver is a commercially available online database that provides aggregated data for International Classification of Diseases, Ninth Revision (ICD-9) codes and Current Procedural Terminology (CPT) codes. The ICD-9 and CPT codes are derived from diagnostic codes and billed services submitted to private insurance companies for inpatient, outpatient, and physician care. The database is compliant with the Health Insurance Portability and Accountability Act of 1996 and contains 1.1 billion deidentified patient records for over 30 million individuals between 2007 and 2011. Patients who are insured with Medicare, Medicaid, or Tricare—services that do not provide their data to PearlDiver—or patients who do not have insurance coverage were not included in the database. Data on billable ICD-9 and CPT codes associated with each patient were linked to all additional ICD-9 and CPT codes billed within 30 days.

The database was queried for the number of distinct patients diagnosed with PF and the total multidisciplinary health care visits associated with the ICD-9 diagnosis code of 728.71. The database was then queried for those individuals who were billed for an evaluation from physical therapists (CPT 97001) within 30 days of diagnosis of PF and the number of visits associated with this procedural code. Patients who had repeat visits for the same diagnosis were only counted once in all analyses, with the exception of the calculated proportion of all multidisciplinary health care visits for PF that were physical therapist evaluations. Individuals who received both a diagnosis of PF and were billed for an evaluation by physical therapists were then evaluated for the frequency of MT or rehabilitation-based exercises provided. Manual therapy utilization was determined with CPT 97140. Distinct patients who were billed for multiple units of CPT 97140 were counted only once in the analysis of individuals receiving MT following evaluation. Subsequent analysis was performed in this subset of patients to assess the volume (units billed) of MT rendered. Supervised rehabilitation services were a combination of 3 common CPT codes: therapeutic exercise (CPT 97110), dynamic activities to improve functional performance (CPT 97530), or neuromuscular re-education (CPT 97112).[31] Distinct patients who were billed for 1 or more of these 3 CPT codes were counted only once in the analysis of individuals receiving supervised rehabilitation services following evaluation. Subsequent analysis was performed in this subset of patients to assess the volume (units billed) of rehabilitation-based exercises provided. Data were evaluated by age (10-year increments), sex (male, female), and intervention (MT, supervised rehabilitation) by year (2007, 2008, 2009, 2010, and 2011). Proportion calculations and 95% confidence intervals (CIs) of sex, age, number of patients evaluated, and number of patients who received intervention were performed in Microsoft Excel and a custom CI calculator spreadsheet.[12] Point estimates were considered statistically significant if CIs did not overlap.

RESULTS

A total of 819 963 unique patients diagnosed with PF accounted for 5 739 737 billed multispecialty patient care visits from 2007 to 2011, representing 2.7% of the total 30 108 510 patients in the database. A total of 262 643 physical therapist evaluations were performed on 57 800 patients, accounting for 4.6% (95% CI: 4.6%, 4.6%) of the total billed health care visits for evaluation and treatment of PF. Only 7.1% (95% CI: 7.0%, 7.1%) of patients with PF received a physical therapist evaluation within 30 days of their initial diagnosis. **TABLE 1** details the distributions of sex and age, and the proportion of patients diagnosed with PF who were evaluated by a physical therapist. Seventy-eight percent of patients were between the ages of 30 and 59 years, with women 50% more likely to be seen for PF (**TABLE 1**). **TABLE 2** describes the setting of physical therapist evaluation, with most (85%) patients evaluated in private and hospital-based outpatient clinics. Of the patients evaluated by a physical therapist, 87.2% (95% CI: 86.4%, 87.9%) received MT as part of their care, with statistically significant increases in utilization per annum from 2007 to 2011 (**TABLE 3**). Patients treated

with MT were treated for a mean ± SD of 5.0 ± 0.1 visits and received 7.7 ± 0.4 units of care at a cost of $1039 ± $101 per patient. **TABLE 4** depicts the proportion of patients who received a course of supervised rehabilitation following physical therapist evaluation from 2007 to 2011. Supervised rehabilitation was prescribed for 89.5% (95% CI: 88.7%, 90.2%) of patients evaluated, with statistically significant per annum increases in utilization from 2007 to 2011 and a significant decrease from 2010 to 2011 (**TABLE 4**). A mean ± SD total of 11.2 ± 0.2 units of supervised rehabilitation were provided in 6.3 ± 0.2 visits per patient, for a total cost of $1379 ± $76. Patients who received MT as part of their care had a shorter episode of care (mean difference, 1.3 visits; 95% CI: 1.3, 1.3) and a lower cost of care (mean difference, $340; 95% CI: $339, $341).

DISCUSSION

The principal findings of this study are that a very low proportion of patients with PF and who are covered with private insurance were treated by physical therapists. Patients who were evaluated by physical therapists were treated with evidence-based interventions such as MT and supervised rehabilitation, with increasing trends of

TABLE 1 Characteristics and Distribution of Patients With Plantar Fasciitis Who Were Diagnosed by a Health Care Provider and Subsequently Seen by a Physical Therapist

Characteristic	n*	Patients With PF, n (%)	PF Patients Evaluated by a Physical Therapist, %†
Sex			
Male	17141	329841 (40.2)	5.2 (5.1, 5.3)
Female	38530	490122 (59.8)	7.9 (7.8, 7.9)
Age, y			
<20	1925	44146 (5.2)	4.4 (4.2, 4.6)
20-29	2496	51388 (6.0)	4.9 (4.7, 5.1)
30-39	9253	150806 (17.7)	6.1 (6.0, 6.3)
40-49	17409	247271 (29.0)	7.0 (6.9, 7.1)
50-59	18919	263081 (30.8)	7.2 (7.1, 7.3)
60-69	6636	94859 (11.1)	7.0 (6.8, 7.2)
70 or older	89	1388 (0.2)	6.4 (5.2, 7.8)

Abbreviation: PF, plantar fasciitis.
**Patients who were evaluated by a physical therapist.*
†Values are point estimate (95% confidence interval).

TABLE 2 Setting of Physical Therapist Evaluation

Facility	Patients Evaluated, n	Distribution, %
Office	55013	69
Outpatient hospital	12561	16
Home	1409	2
Emergency room: hospital	866	1
Ambulatory surgical center	1173	1
Other or unspecified facility	8691	11

TABLE 3 Patients With Plantar Fasciitis Who Were Evaluated by a Physical Therapist and Received a Course of Manual Therapy

Year	n*	n†	Patients Who Received MT, %‡	Billed Units of MT per Patient‡	Visits per Patient‡	Hours of MT Provided per Patient§	Total Charges per Patient‡
2007	11369	8898	78.3 (77.5, 79.0)	8.4 (8.4, 8.4)	4.9 (4.9, 4.9)	1.1-3.2	$1207 ($1206, $1207)
2008	11160	9193	82.4 (81.7, 83.1)	7.7 (7.7, 7.7)	4.8 (4.8, 4.8)	1.0-3.0	$979 ($979, $980)
2009	11208	9899	88.3 (87.7, 88.9)	7.4 (7.4, 7.4)	5.0 (5.0, 5.0)	1.0-2.8	$1021 ($1020, $1021)
2010	11687	10731	91.8 (91.3, 92.3)	7.5 (7.5, 7.5)	5.1 (5.1, 5.1)	1.0-2.9	$944 ($944, $944)
2011	12376	11661	94.2 (93.8, 94.6)	7.7 (7.7, 7.7)	5.1 (5.1, 5.1)	1.0-3.0	$1045 ($1045, $1045)
Grand total	11560 (11559, 11564)‡	10076 (10073, 10086)‡	87.2 (86.4, 87.9)	7.7 (7.7, 7.7)	5.0 (4.9, 5.1)	1.0-3.0	$1039 ($1038, $1040)

Abbreviation: MT, manual therapy.
**Patients with plantar fasciitis who were evaluated by a physical therapist.*
†Patients with plantar fasciitis who were evaluated by a physical therapist and received MT.
‡Values are mean (95% confidence interval).
§The lower and upper limits of hours of MT provided were calculated using 8 to 23 minutes per unit.

TABLE 4 Patients With Plantar Fasciitis Who Were Evaluated by a Physical Therapist and Received a Course of Supervised Rehabilitation

Year	n*	Patients Who Received Supervised Rehabilitation, %†	Billed Units of Supervised Rehabilitation per Patient†	Visits per Patient†	Hours of Supervised Rehabilitation Provided per Patient‡	Total Charges per Patient†
2007	9706	85.4 (84.7, 86.0)	11.3 (11.3, 11.3)	6.2 (6.2, 6.2)	1.5-4.4	$1332 ($1331, $1333)
2008	9835	88.1 (87.5, 88.7)	11.0 (11.0, 11.0)	6.0 (6.0, 6.0)	1.5-5.2	$1293 ($1293, $1294)
2009	10197	91.0 (90.4, 91.5)	11.2 (11.2, 11.2)	6.3 (6.3, 6.3)	1.5-4.3	$1369 ($1368, $1369)
2010	10764	92.1 (91.6, 92.6)	11.0 (11.0, 11.0)	6.4 (6.4, 6.4)	1.5-4.2	$1409 ($1409, $1409)
2011	11232	90.8 (90.2, 91.3)	11.3 (11.3, 11.3)	6.6 (6.6, 6.6)	1.5-4.3	$1490 ($1489, $1490)
Grand total	10347 (10341, 10352)†	89.5 (88.7, 90.2)	11.2 (11.2, 11.2)	6.3 (6.1, 6.5)	1.5-4.3	$1379 ($1378, $1379)

**Patients who were evaluated and received supervised rehabilitation.*
†Values are mean (95% confidence interval).
‡The lower and upper limits of hours of supervised rehabilitation provided were calculated using 8 to 23 minutes per unit.

utilization of these interventions between 2007 and 2011.

As a profession, there is a substantial need for physical therapists to engage and educate the public, primary care providers, sports medicine physicians, and orthopaedic surgeons on the scope of physical therapist practice and value added in the care of patients with PF. Lack of understanding or unfamiliarity with the etiology and treatment of PF, perceptions that PF is self-limiting with no subsequent sequelae, or lack of appreciation of the benefits of specialized physical therapist care may impede referral by medical practitioners. Even if referred, a patient who does not understand the potential benefits of specialized treatment or has competing priorities may not see the return on investment of time and money required to treat the condition and may choose to live with the PF symptoms. Administrative, financial, and geographic barriers and competing priorities may limit a patient's access to specialized physical therapist care. An inability or aversion to pay out-of-pocket care costs or dedicate time for treatment may preclude a patient from being evaluated by a physical therapist. In rural areas, the sparsity of practicing physical therapists and long travel distances or lack of transportation infrastructure to clinic locations may also influence physical therapist utilization. While most states had direct access to physical therapists in some form or another in 2011, regulatory barriers and referral requirements for reimbursement are likely responsible for the low relative numbers of patients seen by physical therapists.

A large proportion of patients evaluated by a physical therapist received MT as part of their treatment (**TABLE 3**). In 2007, 78.3% of patients received MT. In 2011, the proportion of patients increased to 94.2%. It is plausible that this trend in MT utilization in PF may be attributed to inclusion of mobilization and manipulation in physical therapy education programs,[3,16] trends of overall MT utilization in physical therapist practice,[3] and the recommendation of MT for treatment of PF in a clinical practice guideline published by the Orthopaedic Section of the American Physical Therapy Association in 2008.[18] While there were statistical per annum differences in volume of MT provided (billed units) and visits per patient resulting from tight and nonoverlapping CIs, the differences were in the tenths of a unit, did not display a trend over the study period, and were not clinically meaningful. There were per annum statistical differences in reimbursement for MT per patient up to $263 per patient. It is unclear why there is a trend of sequential alternating increases and decreases in reimbursement for MT, but it is plausible that reimbursement of care rendered in one fiscal year may carry over to the next if payment to the clinician was delayed. It is unclear from the data what type of MT was provided to the patients. The CPT 97140 code encompasses techniques such as connective tissue massage, myofascial techniques, joint mobilization and manipulation, and manual traction, any of which might have been employed in the care of these patients. We recommend that future studies investigate the types of MT employed by physical therapists in the care of patients with PF. It is important to note that MT was likely not performed in isolation and was part of a more comprehensive rehabilitation care plan.

Between 85% and 92% of patients evaluated by a physical therapist received a course of supervised rehabilitation (**TABLE 4**), a trend that was relatively stable during the evaluation period. Similar to the findings observed in the MT group, statistical differences were observed in care volume (units of supervised rehabilitation) and visits per patient, with the magnitude of differences equating to a fraction of a unit that did not follow a clear trend over the study period. Per annum reimbursements for supervised rehabilitation were also statistically significant, with a magnitude of difference up to $197 per patient. There were no identifiable trends for total charges per patient over the study period. These pa-

tients were provided therapeutic exercises to improve flexibility and strength, dynamic activities to improve functional performance, or neuromuscular re-education based on the CPT codes evaluated. In the 2008 PF clinical practice guideline,[18] calf and plantar fascial stretching was the only intervention recommended based on the evidence that could fit within our category of supervised rehabilitation. It is very likely that clinicians employed other forms of therapeutic exercises, such as intrinsic foot muscle exercises, in the plan of care. Therapeutic exercise (to include strengthening) and activity to prevent excessive pronation was later included in the updated 2014 clinical practice guideline[17] based on expert opinion, the lowest level of evidence. A disparity exists between clinical research and practice regarding the role of strengthening in the care of patients with PF. More research is needed to investigate the effectiveness of extrinsic and intrinsic foot strengthening in this clinical population.

When comparing patients who received MT in their care to those who received supervised rehabilitation only, patients who received MT were observed to have fewer total visits (mean difference of 1.3 visits) and decreased total health care costs ($340) per patient than patients who did not receive MT. In comparative effectiveness studies of the addition of MT to a comprehensive rehabilitation program, patients improved at earlier time points as compared to the exercise-centric control interventions.[1,7,23] Patients who return to function quicker are likely to be discharged from care sooner, which could explain the decreased health care utilization and cost in this treatment group.

Females were 50% more likely to be diagnosed with PF when compared to male patients (**TABLE 1**). These findings are similar to those recently reported by Reb and colleagues.[22] There are a few likely reasons for this finding. Women have increased arch laxity compared to men[32] and are likely to be more reliant on both dynamic stabilizers of the arch (intrinsic foot muscles) and other passive stabilizers (specifically the plantar fascia) for foot shaping, force transmission, and force attenuation during locomotion. Pregnancy has been found to permanently alter foot structure and function by increasing joint laxity and foot length, and decreasing arch height in primiparous females.[30] This alteration in foot morphology and laxity may be a sign of impaired passive and active stabilization of the foot, both of which may be contributory to the development of PF. Shoewear preference of women may contribute to the disparity. The authors of a study investigating the relationship of shoewear choice with foot pain found that after controlling for weight and age, women who wore shoes other than well-fitting athletic shoes or sneakers the majority of the time were 67% more likely to develop rearfoot pain.[8] The same study found no association between shoewear and foot pain in men.[8] Disparity in health care utilization between sexes may also explain this finding. Women are more likely to seek care and have been observed to have greater utilization of primary care and diagnostic services when compared to men.[5]

We observed that the number of patients with a diagnosis of PF progressively increased in the third to fifth decades of life, followed by a decline in the sixth and seventh decades. These findings are similar to those found by Reb and colleagues.[22] This trend may be attributed to differences in foot structure and function associated with aging, decreased physical activity level in the older middle-aged and the elderly, and differences in access to health care resources across the lifespan. Changes in the foot associated with aging include decreased arch height, range of motion, plantar tactile sensation, and strength, and increased prevalence of foot deformity.[29] Increased body mass index has previously been shown to be a predictor for PF development.[13,24] Progressive increases in body mass index across the lifespan may contribute to the increased PF diagnosis in the older young adults and middle-aged patients.[19] The observed decrease in PF diagnosis in patients in their sixth and seventh decades of life may be related to decreased physical activity and sedentary lifestyle in these individuals. A likely contribution to the decrease in utilization is that these patients switched to Medicare as their primary insurance carrier at age 65,[6] with private insurance either dropped or converted to a secondary supplemental policy. Any care provided would be billed primarily under Medicare and would not be reflected in this database.

Limitations

This current study does have limitations. First, the PearlDiver database is developed from billed services from health care providers, and the accuracy of billing services is difficult to verify. While it is not possible to determine any improper coding during the 5-year period, the size of the database allows for comfort when evaluating the trends of services provided to patients with PF. Second, the database did not include individuals who are covered under Medicare, Medicaid, and Tricare, services that do not provide their data to PearlDiver, or individuals who were uninsured. Inclusion of data from these individuals has the potential to influence the findings. One example is the inclusion of Tricare, as the armed forces have been found to have an incidence of PF of 10.5 cases per 1000 person-years.[28] It is also not possible to determine the discrepancy arising from those who were referred to receive physical therapy and opted out of care. Financial restraints, time limitations, and lack of patient education on the importance of receiving proper care may all influence the number of patients who might not follow up with a physical therapist for care. Greater utilization of health care services by women or individuals in their thirties to fifties, who are more likely to have private insurance coverage, and disenrollment or decreased utilization of private insurance by individuals aged 65 and older introduce selection bias into this study. The characterization

of the patient population in this study should be interpreted in the context of individuals who maintain private insurance and actively seek care. A limitation of the database is that it precluded the identification of patients who received the diagnosis of PF and disenrolled from their insurance prior to the initiation of physical therapy care. Additional information on patient demographics, chronicity of symptoms, other medical history that may influence care decisions, or outcome measures of clinical effectiveness was also not available for analysis.

CONCLUSION

Despite PF being a frequently occurring musculoskeletal condition, only 7.1% of patients were evaluated by physical therapists and were primarily seen in private or hospital-based outpatient clinics. Three quarters of all patients seen by a physical therapist were aged 30 to 59 years, with women 50% more likely to be seen than men. Among patients who were evaluated by a physical therapist, 89.5% received a course of supervised rehabilitation and 87.2% received MT as part of their plan of care. A trend of increased MT utilization was observed from 2007 to 2011. These practice patterns may be attributed to greater integration of MT in physical therapy education programs and increasing evidence in the literature. Patients who received MT as part of their care were seen for fewer visits and had lower costs of care.

KEY POINTS

FINDINGS: Based on a review of over 800 000 cases, only 7.1% of all patients with PF were evaluated by a physical therapist. Our findings demonstrate that once a patient is evaluated by a physical therapist, utilization of MT and supervised rehabilitative procedures was 87.2% and 89.5%, respectively.

IMPLICATIONS: Despite a growing body of evidence for the interventions that physical therapists provide, the vast majority of patients with PF are not receiving physical therapy. Through multidisciplinary research dissemination; education of patients, primary care providers, and orthopaedic and sports medicine clinicians; and improved access to physical therapy services, these trends may improve.

CAUTION: Due to the limitations of the database, it is unclear which individual factors influence a practitioner's decision to employ an intervention such as MT. Because these data are representative of patients who were covered by private insurance and actively sought health care services and did not encompass patients who were uninsured or covered by other medical coverage, such as Tricare, Medicare, or Medicaid, selection bias may limit the generalizability of our findings.

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Plantar Fasciitis

Will Physical Therapy Help My Foot Pain?

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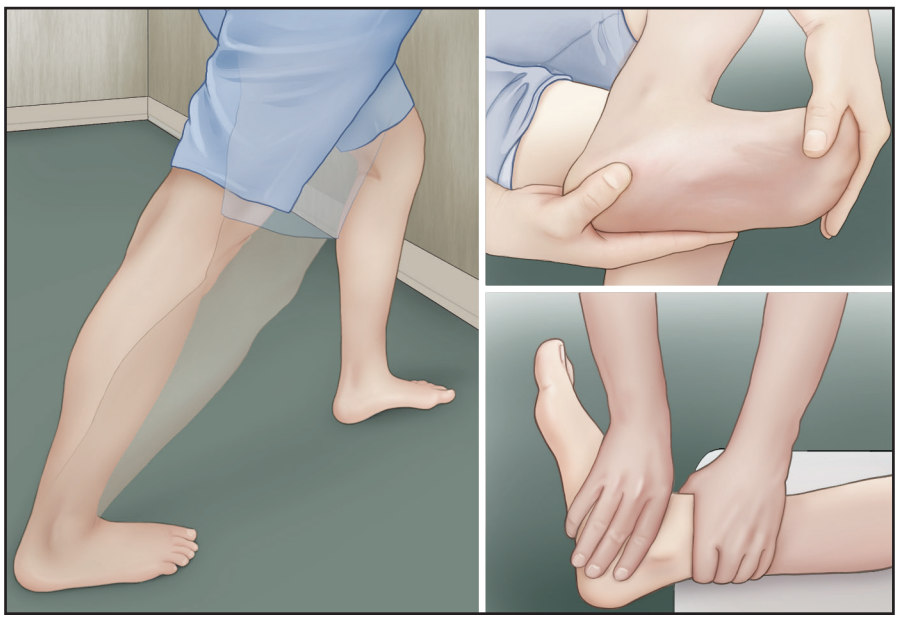
One out of 10 people in the United States experience persistent pain along the bottom of the foot, a condition known as plantar fasciitis. In this country alone, outpatient clinics receive more than 1 million visits a year from people seeking help for this type of foot pain. In 2014, the Orthopaedic Section of the American Physical Therapy Association published updated clinical practice guidelines on the best treatments for patients with plantar fasciitis. The guidelines present evidence that strongly suggests a combination of manual therapy and rehabilitative exercises to help patients with this foot condition. In a more recent study published in the February 2017 issue of *JOSPT*, researchers reviewed the records of people with plantar fasciitis who were sent to physical therapy to determine whether this treatment lessened their pain.



EXERCISES AND MANUAL THERAPY TO LESSEN FOOT PAIN. Your physical therapist may offer a combination of manual therapy and exercises, which have been shown to reduce your pain. These treatment options include calf stretches (A), foot stretches (B), and hands-on therapy (C). For calf stretches, while standing with your foot straight ahead, lean forward and keep your heel on the floor until you feel a stretch sensation in your calf. Perform this stretch first with the back leg straight and then repeat it with the back knee bent. For foot stretches, while seated, grab the base of your toes and pull them toward your shin. Your physical therapist can add manual therapy to your treatment, such as the ankle mobilization shown here.

This *JOSPT* Perspectives for Patients is based on an article by Fraser et al, titled "Utilization of Physical Therapy Intervention Among Patients With Plantar Fasciitis in the United States" (*J Orthop Sports Phys Ther 2017;47(2):49-55. doi:10.2519/jospt.2017.6999*).

This Perspectives article was written by a team of *JOSPT*'s editorial board and staff. Deydre S. Teyhen, PT, PhD, Editor, and Jeanne Robertson, Illustrator.

NEW INSIGHTS

The researchers studied a database of 819 963 patients diagnosed with plantar fasciitis. Only 7.1% of these patients were prescribed physical therapy. Overall, patients sent to physical therapy received evidence-based treatment. These patients were given manual therapy 87% of the time and supervised rehabilitative exercises 90% of the time. The researchers found that patients who received manual therapy as part of their treatment averaged fewer visits and had a lower cost of care of $340. These results support prior studies that show faster recovery time for those who receive evidence-based physical therapy for their foot pain.

PRACTICAL ADVICE

This study shows that despite strong evidence on the benefits of physical therapy for plantar fasciitis, very few patients were given this treatment. If you have foot pain, evidence suggests that physical therapy will help you recover faster and cost you less than if you do not receive this treatment. This study also indicates that physical therapists are quickly adopting the recommendations in the updated clinical practice guidelines on plantar fasciitis. Therapists' use of manual therapy increased from 78% in 2007 to 94% by 2011, while their use of supervised rehabilitative exercises increased from 85% to 91% during this same period. If you have been diagnosed with plantar fasciitis, physical therapy offers evidence-based treatment options to help you recover from your pain.

For this and more topics, visit *JOSPT* Perspectives for Patients online at **www.jospt.org**.