



Demographic Characteristics of the Patients Referred to Physical Therapy Outpatient Clinic

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Fizik Tedavi Polikliniğine Başvuran Hastaların Demografik Özellikleri

ABSTRACT

Objective: Physical medicine and rehabilitation is a medical science which has very wide scope, although pain is the main symptom in patients admitted physical therapy polyclinic. The aim of the present study was to examine the demographic features of the patients who were admitted to the physical medicine outpatient clinic in 2010- 2014 years. **Method:** The medical records of 46729 patients, who were admitted to the outpatient clinics affiliated with Abant İzzet Baysal University Faculty of Medicine and Association of Public Hospitals, were retrospectively reviewed. Of these patients, 29721 (63.6%) were females and 17,008 (36.4%) were males. The mean age of the patients was 51.7 years. The mean age was 53.3 years in female patients and 48.9 years in male patients. **Results:** Of the patients, 10111 had lumbar problems, 7816 in knee, 5612 in neck, and 3652 in shoulder, respectively. The present study attempted to present in detail the characteristics of the patients who were admitted to the outpatient clinics. **Conclusion:** Such studies may guide hospitals in taking necessary precautions depending on the volume of patients who present to the outpatient clinics for follow-up and treatment.

Key words: Physical Therapy, polyclinic, demographic characteristics, pain

ÖZET

Amaç: Fizik Tedavi polikliniğine başvuran hastaların esas yakınması ağrı olmasına rağmen, çok geniş kapsama sahip bir tıp bilim dalıdır. Bizim bu çalışmadaki amacımız 2010-2014 yıllarında fizik tedavi polikliniğine başvuran hastaların demografik özelliklerini incelemektir. **Yöntem:** Abant İzzet Baysal Üniversitesi Tıp Fakültesi Hastanesi ve Kamu Hastaneler Birliğine bağlı fizik tedavi polikliniklerine başvuran 46729 hastanın kayıtları retrospektif olarak incelendi. 29721 (%63.6) hasta kadın, 17008 (36.4) hasta erkekti. Başvuran hastaların ortalama yaşı 51.7 idi. Kadın hastaların yaş ortalaması 53.3, erkek hastaların yaş ortalaması ise 48.9 idi. **Bulgular:** Bel problemi nedeniyle başvuran toplam hasta sayısı 10111, diz problemi nedeniyle başvuran 7816, boyun problemi ile başvuran 5612 ve omuz problemi nedeniyle başvuran hasta sayısı ise 3652 idi. **Sonuç:** Çalışmamızda polikliniklere başvuran hastaların özelliklerini ayrıntılı şekilde sunmaya çalıştık. Bu tür çalışmalar polikliniklerde takip ve tedavi yapılan hastaların yoğunluklarına göre hastanelerin gerekli tedbirler alması konusunda yardımcı olabilir.

Anahtar kelimeler: Fizik Tedavi, poliklinik, demografik özellikler, ağrı

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INTRODUCTION

Physical medicine and rehabilitation is a medical science which has very wide scope, although pain is the main symptom in patients admitted physical therapy polyclinic. The medical history and physical examination are the utmost importance in the diagnosis and treatment of the conditions in the practice of physical medicine and rehabilitation (PMR). The imaging techniques and laboratory tests are utilized if necessary (1). The methods used in physical medicine can be complicated depending on the disease. This branch of the medicine uses manual therapy, injections, kinesiotape, and many other methods of complementary medicine, in addition to patient education, exercises, drug therapies, and physical therapy devices.

Among patients presenting to physicians in the United States, 10.9% had musculoskeletal disorders, and of these patients, 2% had lumbar pain (2). The incidences of chronic and degenerative joint disorders also increase with aging. The rate of joint problems is 5% in the 16-24 age group, and this rate is as high as 54% in patients aged above 85 years. Degenerative disorders of the musculoskeletal system and non-inflammatory diseases that cause mechanical pain are among the most common health problems. Of patients aged 65 years and above, 90% exhibit radiological evidences of the degenerative joint disease, osteoarthritis (3). The prevalence of osteoarthritis is 57% in the population aged 55 years and above in the United States, and 24% of these patients report impairment in performing daily activities (4).

The aim of the present study was to examine the demographic features of the patients who were admitted to the physical medicine polyclinic in 2010-2014 years. In this regard, a comparison with other studies might provide clues about common disorders in the area and associated factors.

MATERIAL AND METHODS

The medical records of 46.729 patients, who were admit-

ted to the outpatient clinics affiliated with Abant İzzet Baysal University Faculty of Medicine and Association of Public Hospitals in 2010-2014 years, were retrospectively reviewed. Demographic data and patient characteristics were retrieved from the medical records. The study included only outpatients. The patients presenting to the outpatient clinics are generally from the Bolu province, and patients residing in the neighboring provinces are also admitted on occasion. The study attempted to determine disorders of the musculoskeletal system in patients living in the same area. were retrieved from the medical records. The study included only outpatients. The patients presenting to the outpatient clinics are generally from the Bolu province, and patients residing in the neighboring provinces are also admitted on occasion. The study attempted to determine disorders of the musculoskeletal system in patients living in the same area.

Statistical Analysis

The sociodemographic features of the patients were expressed as mean, standard deviation, and percentage. The patient groups were compared depending on the diagnosis groups (physical medicine, rheumatologic, neurologic, and orthopedic) using one-way ANOVA. Post-hoc multiple comparisons test with Bonferonni correction was used to determine the differences between the groups.

RESULTS

46729 patients were admitted to the physical medicine and rehabilitation outpatient clinics affiliated with Abant İzzet Baysal University Faculty of Medicine and Association of Public Hospitals. Of these patients, 29721 (63.6%) were females and 17008 (36.4%) were males. The mean age of the patients was 51.7 years. The mean age was 53.3 years in female patients and 48.9 years in male patients. Of the patients, 1358 (2.9%) were in the 0-19 years age group, 8,806 (18.84%) were in the 20-30 years age group, 21012 (44.96%) were in the 40-59 years age group, and 15553 (33.28%) were above 60 years. The youngest patients were below 1 year of age (total 13 patients) and

Table 1. Data indicating the monthly distribution of the admissions to the outpatient clinics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<i>n</i>	4038	4486	3736	3377	3826	6847	5187	3520	2559	2060	3160	3933
%	8.6	9.6	8	7.2	8.2	14.6	11.1	7.5	5.5	4.4	6.8	8.4

Table 2. The rates of diagnoses according to treatment methods in outpatients

	Physical therapy department	Orthopedic rehabilitation	Neurological rehabilitation	Rheumatic diseases group
<i>n</i>	43433	1481	1518	1024
%	92.94	3.16	3.24	2.19

the oldest patient was 102 years old (1 patient). The mean age was significantly different in patients admitted to the PMR outpatient clinics compared to the patients admitted to the other departments. The mean age was 48.1 years in patients who required rehabilitation due to orthopedic problems, 54.5 years in patients who required rehabilitation due to neurological problems, and 47.2 years in patients who required rehabilitation due to rheumatologic problems. The number of admissions was 4756 (10.2%) in 2010, 9666 (20.7%) in 2011, 8086 (17.3%) in 2012, 11570 in 2013, and 12651 in 2014. The monthly distribution of the admissions are presented in Table 1, and the distribution of the patients according to diagnostic groups is presented in Table 2, and the most frequent reasons for admissions are presented in Table 3.

Table 3. The most frequent reasons for admission

Diagnosis	<i>n</i>
Lumbar Discopathy	5262
Back pain	2689
Lumbar Spondylosis	1812
Cervical Discopathy	2541
Cervical Strain	1218
Cervical Spondylosis	1726
Impingement Syndrome	1790
Rotator cuff Syndrome	600
Shoulder lesions, tendinitis, bursitis	473
Gonartrosis	5626
Meniscopathy	1323
Condromalasia patella	573

Of the patients, 10111 had lumbar problems, 7816 in knee, 5612 in neck, and 3652 in shoulder, respectively. 202 had upper extremity fractures, 127 had lower extremity fractures, and 30 had vertebral fractures. 1194 had peripheral nerve lesions, 1043 had been diagnosed with polyneuropathy, and 24 had been diagnosed with plexopathy. 2204 patients were monitored due to fibro-

myalgia and fibrositis. 131 were diagnosed with and administered therapy for osteoporosis, and 132 were followed as an outpatient with the diagnosis of scoliosis.

DISCUSSION

Pain is the main symptom in patients presenting to the physical medicine and rehabilitation outpatient clinics. Pain was previously considered as a symptom of the diseases; however, pain itself, particularly chronic pain, is accepted today as a syndrome and disease. The epidemiological studies on pain investigate the burden of pain in a population and how pain differs according to age, gender, ethnicity, and population. The results of the studies evaluating the prevalence of pain may vary greatly. Pain, as a symptom, is a complex response comprising objective, subjective, sensorial, and psychogenic components. As a result, the response given to pain differs from one person to another and this response can even change in the same person between different time periods. Medical therapies as well as invasive interventions are used in the treatment of pain, and many disciplines are involved in pain management.

Of the patients suffering from pain in a study conducted in the United States, 9.9% had acute pain, 6.9% had sub-acute pain, and 64.4% had chronic pain; the prevalence of chronic pain was found to be 87.4% in Hong Kong (5, 6). The prevalence of chronic pain was 76.6% in the 18-65 years age group in Turkey, and higher prevalence rates were reported in Northern, Middle, and Eastern areas, particularly in the rural areas (81.4%) of Turkey (7). In the present study, patients were classified according to specific diagnoses. Of these patients, 202 were only diagnosed with acute pain and 132 were diagnosed with chronic pain.

In the study by Portenoy et al., the rate of pain was 47% in the hip and lower extremities, 40% in the back, 28% in the head and neck region, and 24% in the shoulder and upper extremities (8). In Spain, the most common sites of involvement are the lower extremities, back, and head-

neck in the respective order (9). James et al. reported low back pain (25%), headache (15%), and joint pain (11%) as the most common causes of pain. In the study by Erdine et al., the prevalence rates for headache, low back pain, lower extremity, and abdominal pain were 34.5%, 14.1%, 12%, and 10.9%, respectively. The prevalence of pain in Turkey was reported to be higher in females (79.8%) compared to males (56.8%). Pain was even more prevalent among females living in the urban areas in western parts of Turkey, and the prevalence of pain increased in parallel to increasing age (7). Most studies on the prevalence of pain reported higher prevalence rates in females and higher rates with increasing age (11). In the study by Chung and Wong, the most frequent complaints were low back pain (22.2%), headache (19.9%), upper extremity pain (18.5%), lower extremity pain (16.4%), and abdominal pain (11.3%) (6). The most common sites of involvement in the study by Kuru et al. were shoulder, low back, neck, back, and knees (12). The most common sites of involvement in the study by Elliott et al. were low back and joints, while low back pain was more common in young and male patients and joint pain was more common in the older age groups and in females (13). The current retrospective study reviewed patients who were admitted to the physical medicine and rehabilitation outpatient clinics for the duration of one year. Of these patients, 60.3% (2154) were females and 39.6% (1417) were males. The most common cause of pain was discopathies (21.4%), while 84.9% of the herniations occurred in the lumbar area and 15% occurred in the cervical area. The second most common cause of pain was arthrosis occurring in 19.8% of the patients, and of these patients, 43.9% had gonarthrosis, 34.6% had cervical spondylosis, 12.1% had lumbar spondylosis, 7.4% had generalized arthrosis, and 1.6% had coxarthrosis. The third most common cause of pain was soft tissue rheumatic disease, and of these patients, 81.3% had fibromyalgia, 10.9% had myofascial pain syndrome, and 7.8% had other rheumatic diseases of the soft tissue. The fourth most common cause of pain was arthritis, and of these patients, 36% had non-specific arthritis, 28.6% had acute articular rheumatism, 19.6% had spondyloarthritis, and 6.9% had gout. The studies that evaluated the prevalence of various disorders in certain age groups reported that disc herniations most frequently occurred in the 21-40 years age group (64.9%) and arthrosis most frequently occurred in the 51-70 years age group (55.8%) (14). Another study that evaluated patients presenting to the PMR outpatient clinics for a duration of

three months reported that the proportions of females and males were 68.2% and 31.8%, respectively, and 22.5% of the patients were aged above 60 years. Among the patients aged above 60 years, the prevalence of degenerative joint diseases was 45.6%, the prevalence of osteoporosis was 23.7%, the prevalence of inflammatory disorders was 2.8%, the prevalence of soft tissue disorders was 5%, the prevalence of vertebral disorders was 14.2%, the prevalence of orthopedic disorders was 2.8%, and the prevalence of neurological disorders was 5.9%. In one study, vertebral disorders were the second most common cause of pain in males with the exception of degenerative and inflammatory disorders, and osteoporosis was the second most common cause of pain in females (15). In the present study, a total of 10,111 patients presented with low back pain (21.6%), 5,612 patients presented with neck pain (12%), 3,052 patients presented with shoulder pain (6.5%), and 7,818 patients presented with knee pain (16.7%). A significant proportion of our patients were in the 20-30 years age group (44.96%).

Among patients who were admitted to the algology outpatient clinic for pain management over a duration of two years, low back pain, shoulder pain, and headache were the most common causes of presentation, and the three most common diagnoses were low back pain, musculoskeletal pain and headache. The mean VAS score was 7.3, and the pain was usually of a tingling or throbbing character, and 73% of the patients had chronic pain (16). In the present study, low back pain and knee pain were the most common causes of admission to the outpatient clinics.

In one study that evaluated patients presenting with pain between 2000 and 2010, 160 patients were aged 18 years and below, 4,447 patients were aged between 19-64 years, and 2,040 patients were aged 65 years and above, and the study evaluated 6,647 patients, 49.9% of which were males and 50.1% were females. Of these patients, 22.6% had myofascial pain, 21.2% had neuropathic pain, 15.7% had lumbar pain, and 6.2% had neck-shoulder-arm pain (17). Some psychophysical studies conducted in healthy individuals reported that females had lower pain threshold than males and higher pain scores were reported by female patients, indicating a low pain tolerance in female patients (18). In a study conducted in PMR clinics at Ankara Numune Education and Research Hospital in 1998, 76.4% of the patients presenting to the outpatient clinics were in the 65-70

age group. In the same study, gonarthrosis and generalized osteoarthritis were reported as the most common disorders in both genders (19). In the present study, females composed 63.6% of the patients presenting to the outpatient clinics. Of the patients, 33.28% were aged 60 years or above.

In another study, of patients aged 65 years or above presenting to the physical medicine and rehabilitation centers for treatment, 52.36% were males and 47.64% were females, and the reason for admission was rheumatic diseases in 81.98% of males and 86.13% of females; orthopedic rehabilitation after sustaining a fracture in 41.44% of males and 48.51% of females; neurological rehabilitation after stroke in 27.92% of males and 27.72% of females ($p>0.05$); pulmonary exercises due to disorders such as asthma and COPD in 27.03% of males and 18.81% of females ($p<0.01$); and physical therapy due to cervical disc herniation in 22.52% of males and 31.68% of females ($p<0.001$) (20). The proportion of patients requiring orthopedic, neurologic, and rheumatologic rehabilitation was 3.16%, 3.24%, and 2.19%, respectively.

The present study attempted to present in detail the characteristics of the patients who were admitted to the outpatient clinics. We cannot apply our results for general population due to the broad exclusion criteria. Such studies may guide hospitals in taking necessary precautions depending on the volume of patients who present to the outpatient clinics for follow-up and treatment.

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