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Approach of Physical Medicine and Rehabilitation Physicians to Somatic Symptoms: A Psychiatric Perspective

Fiziksel Tıp ve Rehabilitasyon Hekimlerinin Somatik Semptomlara Yaklaşımı: Psikiyatrik Bir Bakış Açısıyla

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ABSTRACT Objective: Physical medicine and rehabilitation (PMR) physicians frequently encounter somatic symptoms, and their attitudes and practices regarding somatic symptoms may be affected by various variables. This study aimed to examine the practices and attitudes of PMR physicians actively practicing in Türkiye through a survey. **Material and Methods:** A web-based, cross-section, and observational survey was administered to PMR physicians. **Results:** One hundred and eighty-eight physicians [116 females (61.70%) and 72 males (38.30%); 28 residents (14.90%) and 160 specialists (85.10%)) were included in the study. Musculoskeletal symptoms were the most common somatic symptom referral for all PMR physicians (n=188), while neurological (n=119) and general (n=69) symptoms were the second most common reason for referral. The most common non-organic/physical somatic symptom referral was general symptom for 82 PMR physicians (43.60%) and musculoskeletal symptom for 64 PMR physicians (34.00%). The most common non-organic/physical musculoskeletal symptom reason was pain for 96 PMR physicians (51.10%) and myalgia for 80 PMR physicians (42.60%). Numbness/tingling was the most common non-organic/physical neurological symptom reason for all PMR physicians (n=188). One hundred twenty-six PMR physicians (67.00%) started symptomatic treatment for non-organic/physical somatic symptoms, while 48 PMR physicians (25.50%) referred to psychiatry. Among all antidepressants, duloxetine was the most frequently preferred one by 170 PMR physicians (90.40%) for non-organic/physical somatic symptoms. Seventy-four PMR physicians (39.40%) thought that antidepressants caused dependency. **Conclusion:** This study demonstrates that PMR physicians' experiences and histories on various variables affect their approach to somatic symptoms. It is thought that their attitudes toward patients presenting with non-organic/physical somatic symptoms will be improved with psychiatric training (in-service, rotation, etc).

Keywords: Physical medicine and rehabilitation; somatic symptom; attitude; prescription practice; psychotropic preferences

ÖZET Amaç: Fiziksel tıp ve rehabilitasyon (FTR) hekimleri somatik semptomlarla sıklıkla karşılaşırlar ve somatik semptomlara ilişkin tutumları ve uygulamaları çeşitli değişkenlerden etkilenebilir. Bu çalışma, Türkiye'de aktif olarak çalışan FTR hekimlerinin uygulamalarını ve tutumlarını bir anket yoluyla incelemeyi amaçlamıştır. **Gereç ve Yöntemler:** FTR hekimlerine web tabanlı, kesitsel ve gözlemsel bir anket uygulandı. **Bulgular:** Çalışmaya 188 hekim (116 kadın (%61,70) ve 72 erkek (%38,30); 28 asistan (%14,90) ve 160 uzman (%85,10)) dâhil edildi. Kas-iskelet sistemi semptomları tüm FTR hekimleri için en yaygın somatik semptom başvurusu nedeniyken (n=188), nörolojik (n=119) ve genel (n=69) semptomlar ise ikinci en sık başvuru nedeniydi. En sık görülen organik olmayan/fiziksel somatik semptom başvurusu 82 FTR hekimi için genel semptom (%43,60) ve 64 FTR hekimi için kas-iskelet semptomu (%34,00) idi. En sık görülen organik olmayan/fiziksel kas-iskelet semptom nedeni 96 FTR hekimi için ağrı (%51,10) ve 80 FTR hekimi için miyalji (%42,60) idi. Uyuşma/karıncalanma tüm FTR hekimleri için en sık görülen organik olmayan/fiziksel nörolojik semptom nedeniydi (n=188). 126 FTR hekimi (%67,00) organik olmayan/fiziksel somatik semptomlar için semptomatik tedaviye başlarken, 48 FTR hekimi (%25,50) psikiyatriye yönlendiriyordu. Tüm antidepresanlar arasında, 170 FTR hekimi (%90,40) tarafından organik olmayan/fiziksel somatik semptomlar için en sık tercih edilen antidepresan duloksetindi. Yetmiş dört FTR hekimi (%39,40) antidepresanların bağımlılığa neden olduğunu düşünüyordu. **Sonuç:** Bu çalışma, FTR hekimlerinin çeşitli değişkenlere ilişkin deneyimlerinin ve geçmişlerinin somatik semptomlara yaklaşımlarını etkilediğini göstermektedir. Psikiyatrik eğitimlerle (hizmet içi, rotasyon vb.) organik olmayan/fiziksel somatik semptomlar gösteren hastalara yönelik tutumlarının iyileştirileceği düşünülmektedir.

Anahtar Kelimeler: Fiziksel tıp ve rehabilitasyon; somatik semptom; tutum; reçeteleme pratiği; psikotrop tercihleri

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Somatic symptom disorder (SSD) is characterized by disproportionate and excessive thoughts, emotions, and behavior about one or more physical symptoms that cause significant distress and/or dysfunction.[1] Somatic symptoms include general, cardiopulmonary, gastrointestinal, musculoskeletal, neurological, and genitourinary symptoms.[2] The symptoms may or may not be accompanied by a general medical illness and are not intentionally produced or feigned.[1,2] The diagnosis is reached based on the history taken from the patient or relatives. The prevalence of SSD is estimated to be 5% to 7% of the general population, accounting for as many as 50% of new medical outpatient visits in European countries, with a higher female/male ratio, and can occur at any time in life.[3-5] Although the etiology of SSD has not yet been clearly explained, genetic load, chaotic lifestyle, sexual abuse, childhood neglect, personality disorders, psychosocial stressors, including unemployment and impaired occupational functioning have been reported to increase the risk.[6]

Patients with somatic symptoms are commonly encountered in primary care and other medical settings.[3] Physical therapists are among the healthcare professionals who most frequently examine patients with somatic complaints.[7] The relationship between somatic symptoms and psychological processes has been known for many years. Physical illnesses can cause psychological symptoms or worsen existing symptoms, and vice versa.[4] Because somatic symptoms present with physical symptoms, patients with these symptoms are first admitted to non-psychiatric physicians. While some patients with somatic symptoms evaluated by non-psychiatric physicians may not have an organic/physical etiology, others may have psychiatric symptoms in addition to the organic/physical aetiology.[8] Patients who present to non-psychiatric physicians with somatic symptoms are subjected to many extensive examinations and receive unnecessary treatments, whereas psychological factors are insufficiently explored.[3,9] This situation leads to the reinforcement of patients' somatic symptoms that have a psychological origin, further alienating them from the possibility of accessing psychiatric treatment.[9] Also, patients who are deprived of psychiatric treatments even though no organic/physical aetiology can be determined cause excessive consumption of healthcare resources.[10] This group of patients who visit the same or different physicians multiple times with somatic symptoms but do not get better can be defined as "difficult", "heart sink", or "hateful" patients.[11] However, appropriate psychiatric interventions can prevent the emergence of these negative situations in some patients with SSD.[5,6]

There are a large number of studies in the literature examining patients who present to physical therapists with somatic symptoms.[7] Despite numerous studies investigating the subject from different aspects, the practices and attitudes of physical medicine and rehabilitation (PMR) physicians toward patients presenting with somatic symptoms have not been examined before from a psychiatric perspective. This study aimed to examine the sociodemographic and training characteristics, practices and attitudes regarding somatic symptoms, and psychotropic-use characteristics of PMR physicians actively working in Türkiye through a web-based survey.

MATERIAL AND METHODS

The sample of this cross-sectional study consists of PMR residents and specialists actively working in Türkiye.

SAMPLING FRAME AND GENERAL INFORMATION

The educational characteristics and job descriptions of health professionals working in the field of physical medicine, physical rehabilitation, or physical therapy in Türkiye show some differences compared to other countries. In Türkiye, there are 2 main professional groups involved for treating patients with physical complaints: physiotherapy and PMR. Following a 4-year university education, physiotherapists perform exercise activities aimed at the treatment of musculoskeletal and nervous system disorders. On the other hand, to become a PMR specialist, it is necessary to have a 4-year medical specialization training in PMR after a 6-year medical school education. In Türkiye, patients are first admitted to PMR physicians, and PMR physicians refer patients to physiotherapists for the necessary physiotherapy interventions (e.g., massage, hot or cold therapy, warm water therapy or ultrasound therapy). All

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PMR physicians included in this study were medical doctors. In this study, the experiences of PMR physicians in managing somatic symptoms were inquired.

In Türkiye, antidepressant (AD) [e.g., tricyclic antidepressants (TCA), tetracyclic antidepressants (TeCA), selective serotonin reuptake inhibitors (SSRI), serotonin norepinephrine reuptake inhibitors (SNRI), noradrenaline and specific serotoninergic antidepressants], benzodiazepine (BZD), and antipsychotic (AP) medications can be prescribed by PMR physicians. Medications with addictive effects, such as BZDs, are in the green prescription drug class.

Somatic symptoms were grouped under 6 main headings and were questioned in this manner in the survey: General (fatigue, dry mouth, hot or cold sweats, headaches, dizziness, trouble concentrating, trouble with memory, loss of energy, itching), cardiopulmonary (palpitations, chest pain, shortness of breath/difficulty breathing), gastrointestinal (vomiting, nausea, diarrhea, frequent burping, stomach pain, burning sensation in the chest or upper abdomen, feeling full after only a few bites), musculoskeletal (waist, neck, leg or arm pain, arthralgia, myalgia, pain when moving), neurological (numbness, tingling, weakness or paralysis, abnormal movements, abnormal limb postures, abnormalities with gait/walking, loss of balance or coordination, hearing, vision and speech abnormalities, sensation of a lump in the throat, coma), and genitourinary (burning sensation during urination, pelvic pain). The study of Gara et al.[12] Was used in the creation of the somatic symptom classification.

SAMPLE SIZE CALCULATION

The number of PMR physicians actively working in Türkiye is estimated to be 6,000. Studies show that all PMR physicians frequently encounter patients with somatic symptoms in their outpatient practice. It was found that 136 PMR physicians were sufficient to carry out this study (confidence level as 95% margin of error as 5%, population proportion as 90%).

DEVELOPMENT OF THE SURVEY AND DATA COLLECTION

The survey draft was created by researchers with 6 years of experience in psychiatry practice and 5 years of experience in PMR practice. Leading and sensitive questions were avoided. The survey language is Turkish. The survey draft was piloted and revised based on feedback from 10 PMR specialists. The Google Form (Alphabet, Googleplex, Mountain View, California, USA) was used in the creation of the survey and was sent to PMR specialists and residents via messaging and mail groups.

An initial e-mail/message and reminder e-mail/messages were directed to PMR specialists and residents. The landing page of the survey presented the purpose and ethical aspects of the study. The survey was open from September 12, 2024 to October 12, 2024.

Inclusion and Exclusion Criteria

Those who were not actively practicing PMR were not included in the study. There was no age or gender limit. There was no resident or specialist limit. The participants answered all the questions completely and harmoniously. Therefore, no data were excluded from the study.

ETHICAL APPROVAL

Ethical approval was obtained from the Fırat University Non-invasive Research Ethics Committee, and the 1964 Declaration of Helsinki was complied with (Date: September 11, 2024, no: 2024/12-15). All participants provided informed consent.

STATISTICAL ANALYSIS

All analyses were performed using Statistical Package for Social Sciences version 26 (Armonk, NY: IBM Corp). Descriptive statistics and continuous variables were given as mean±standard deviation and categorical variables were given as frequency and percentage. The chi-square test and Fisher's exact test were used to compare the categorical data between the groups and genders. Compliance with normal distribution was determined by the Kolmogorov-Smirnov test and Mann–Whitney U test was used for non-normally distributed variables. Binary logistic regression analysis was used in variable prediction and was applied separately for each independent variable, and those with significant p values were included in the model. Variables that did not sufficiently contribute to

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the model were subsequently excluded. The suitability of the independent variable to the model was checked through the Hosmer and Lemeshov test. A p value of less than 0.05 was set as statistical significance.

RESULTS

SOCIODEMOGRAPHIC AND TRAINING CHARACTERISTICS OF THE PMR PHYSICIANS

One hundred and eighty-eight physicians [116 females (61.70%) and 72 males (38.30%); 28 resident (14.90%) and 160 specialist (85.10%)] were included in the study. While the mean age (n=188) was 38. 68±9. 14 years (minimum 26 years, maximum 73 years, median 36.00 years), the mean duration of PMR practice (n=188) was 12.45±8.50 years (minimum 1 year, maximum 45 years, median 9. 50 years).

The distribution of the sociodemographic and training characteristics of the PMR physicians is shown in Table 1.

EXPERIENCES OF PMR PHYSICIANS TOWARD SOMATIC SYMPTOMS

The average daily outpatient visits of the PMR physicians were examined. Eighty-two PMR physicians (43.60%) had 0-30 outpatient visits, while 106 PMR physicians (56.40%) had 31-70 outpatient visits. The number of outpatient visits for somatic symptoms among 70 PMR physicians was between 0 and 10, among 54 PMR physicians was between 11 and 30, and among 64 PMR physicians was 31 and above. Musculoskeletal symptoms were the most common cause of visit for all PMR physicians (n=188).

Neurological symptoms were the second most common visit reason for 119 PMR physicians (63.30%), and general symptoms were the second most common reason for 69 PMR physicians (36.70%). The most common non-organic/physical somatic symptom reason was general symptom for 82 PMR physicians (43.60%) and musculoskeletal symptom for 64 PMR physicians (34.00%). The most common non-organic/physical musculoskeletal

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TABLE 1: Sociodemographic, training characteristics and experiences, and attitudes of PMR physicians in terms of gender

Variables	Female (n=116) $\bar{X}$±SD (mean rank)&n/n	Male (n=72) $\bar{X}$±SD (mean rank)&n/n	p value
Age (years)	40.09±9.62 (102.91)	36.40±7.87 (80.94)	0.007*[a]
Duration of PMR practice (years)	14.02±9.07 (103.57)	9.93±6.84 (79.88)	0.004*[a]
Specialization status (resident/specialist)	18/98	10/62	0.760[b]
Residency training from (university hospital/training and research hospital)	68/48	58/14	0.002*[b]
Current institution (university hospital/training and research hospital/private clinic)	18/62/36	10/44/18	0.576[b]
Average number of PMR outpatient visits (0-30 visit/31-70 visit)	54/62	28/44	0.303[b]
Average number of PMR outpatient visits due to any somatic symptoms (0-10 visit/11-30 visit/31 and above)	42/32/42	28/22/22	0.727[b]
Second most common class of any somatic symptom presentation (neurological/general)	78/38	41/31	0.154[b]
Most common class of non-organic/physical somatic symptom presentation (musculoskeletal/neurological/general/cardiopulmonary/gastrointestinal)	30/26/50/2/8	34/2/32/2/2	0.001*[c]
Most common musculoskeletal non-organic/physical somatic symptom presentation (pain/myalgia/arthralgia)	59/49/8	37/31/4	0.935[b]
In case of non-organic/physical somatic symptoms (I manage the patient with symptomatic treatment/ I refer the patient to psychiatry/I refer the patient to neurology/ I do not refer the patient and do not start treatment)	77/29/4/6	49/19/0/4	0.467[c]
Do you think that patients who present to any physician other than PMR with any somatic symptoms should be routinely referred to PMR? (yes/no)	78/38	44/28	0.392[a]
Average number of PMR outpatient visits with diagnosis-preliminary diagnosis of fibromyalgia (0-5 visit/6-10 visit/11-20 visit/21 visit and above)	73/27/14/2	39/23/10/0	0.364[a]
Experience of referring patients to psychiatry with a preliminary diagnosis of SSD (yes/no)	100/16	62/10	0.985[a]
History of SSD diagnosis in first- or second-degree relatives (yes/no)	38/78	20/52	0.472[a]

*p<0. 05; [a]Mann-Whitney U test; [b]Chi-square test; [c]Fisher's exact test were used in statistical analysis; PMR: Physical medicine and rehabilitation; SD: Standard deviation; SSD: Somatic symptom disorder

symptom reason was pain for 96 PMR physicians (51.10%) and myalgia for 80 PMR physicians (42.60%). Numbness/tingling was the most common non-organic/physical neurological symptom reason for all PMR physicians (n=188). Fifty-eight PMR physicians (30.90%) had at least one first- or second-degree relative with a history of SSD diagnosis. One hundred and sixteen PMR physicians (61.70%) had at least one first- or second-degree relative with a history of AD use.

In case of non-organic/physical somatic symptoms, 38 (30.20%) of the PMR specialists (n=126) who did not refer the patient to psychiatry and managed them with symptomatic treatment used duloxetine at a dose of 30 mg/day, while 6 (4.80%) did not prescribe duloxetine. Of these physicians (n=126), 40 (31.70%) thought that ADs caused dependency, and 46 (36.50%) thought that ADs caused forgetfulness. Thirty (31.70%) of them recommended ADs outside the morning hours. While there were 2 (1.60%) physicians who had experience in prescribing APs for somatic symptoms, there were 118 PMR physicians (93.70%) who used pregabalin/gabapentin for non-organic/physical somatic symptoms. The rate of those who thought that ADs should be used for 6 months or more was 63.49%. None of the PMR physicians had any training on cognitive behavioral therapy (CBT).

The psychotropic use characteristics and experiences of the PMR physicians are shown in Table 2.

TABLE 2: Psychotropic use characteristics and attitudes of PMR physicians in terms of gender

Variables	Female (n=116) n/n	Male (n=72) n/n	p value
Experience of starting any AD in non-organic/physical somatic symptoms (yes/no)	110/6	68/4	0.909[a]
Most preferred AD class in non-organic/physical somatic symptoms (no experience/SNRI/SSRI/TCA)	6/104/4/2	4/62/4/2	0.856[b]
Most preferred SNRI in the presence of non-organic/physical somatic symptoms (no experience/duloxetine)	110/6	68/4	0.909[a]
Most preferred SSRI in the presence of non-organic/physical somatic symptoms (no experience/sertraline/escitalopram/fluoxetine)	79/9/16/12	51/11/10/0	0.020*[a]
Most preferred TCA in the presence of non-organic/physical somatic symptoms (no experience/amitriptyline)	24/92	20/52	0.264[a]
Most preferred TeCA in the presence of non-organic/physical somatic symptoms (no experience/mirtazapine/mianserin)	114/2/0	68/2/2	0.172[b]
Most preferred AD medication in non-organic/physical somatic symptoms (no experience/duloxetine/amitriptyline/sertraline)	6/104/2/4	4/66/2/0	0.432[b]
Duloxetine starting dose in the presence of any somatic symptoms (no experience/30 mg/day)	6/110	4/68	0.909[a]
Time to increase duloxetine dosage (no experience/I do not increase the dose, I continue with the starting dose/1 week/2 week/3 week/4 week)	6/25/5/4/0/76	4/11/1/4/4/48	0.108[b]
Duloxetine maintenance regimen (no experience/both starting and maintenance dose 30 mg/day/ starting dose 30 mg/day, maintenance dose 60 mg/day)	6/37/73	4/21/47	0.924[a]
Experience with prescribing duloxetine at a dose of 90-120 mg/day (no experience/yes/no)	6/8/108	4/2/70	0.221[a]
Experience with duloxetine-induced hypertension (no experience/yes/no)	6/46/64	4/38/30	0.188[a]
Are ADs addictive? (yes/no)	43/73	31/41	0.414[a]
Do ADs cause forgetfulness? (yes/no)	53/63	23/49	0.062[a]
How long do you apply ADs in the presence of any somatic symptoms? (no experience/I stop AD when somatic symptoms disappear/1 month/3 month/6 month/12 month/12 month and above)	6/6/8/18/68/8/2	4/6/4/16/26/10/6	0.039*[b]
The most common AD side effect experience (no experience/nausea-vomiting/sedation/ headache-dizziness/constipation-dry mouth/palpitation/appetite problems/bruxism/sleep problems)	6/34/26/15/8/6/6/8/7	4/30/14/11/4/0/2/0/7	0.127[b]
What time of day should ADs be used? (morning/afternoon/evening/before sleep)	87/0/22/7	49/4/30/18	0.006*[a]
Experience of prescribing APs for any somatic symptoms (yes/no)	2/114	2/70	0.626[b]
Experience of prescribing BZDs for any somatic symptoms (yes/no)	16/100	10/62	0.985[a]
Experience of prescribing pregabalin/gabapentin for non-organic/physical somatic symptoms (yes/no)	100/16	66/6	0.258[a]
Most preferred AD medication in fibromyalgia (no experience/duloxetine/ amitriptyline/sertraline)	6/106/2/2	4/66/0/2	0.686[b]
Experience of dependency on pregabalin/gabapentin prescribed to treat non-organic/physical somatic symptoms (yes/no)	53/63	47/25	0.009*[a]
History of AD use in first- or second-degree relatives (yes/no)	78/38	38/34	0.047*[a]

*p<0.05; [a]Chi-square test; [b]Fisher's exact test were used in statistical analysis; PMR: Physical medicine and rehabilitation; AD: Antidepressant; SNRI: Serotonin norepinephrine reuptake inhibitor; SSRI: Selective serotonin reuptake inhibitor; TCA: Tricyclic antidepressant; TeCA: Tetracyclic antidepressant; BZD: Benzodiazepine; AP: Antipsychotic; BZD: Benzodiazepine

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PRACTICES AND ATTITUDES OF PMR PHYSICIANS TOWARD SOMATIC SYMPTOMS

One hundred twenty-six PMR physicians (67.00%) started symptomatic treatment for non-organic/physical somatic symptoms, while 48 PMR physicians (25.50%) were referred to psychiatry. Ten PMR physicians (5.30%) did not have experience prescribing ADs for non-organic/physical somatic symptoms. The most frequently preferred AD class for 166 PMR physicians (88.30%) for non-organic/physical somatic symptoms was SNRIs. One hundred thirty PMR physicians (69.10%) had never used SSRIs. The most frequently preferred SNRI for 178 PMR physicians (94.70%) for non-organic/physical somatic symptoms was duloxetine. The most frequently preferred TCA for 144 PMR physicians (76.60%) for non-organic/physical somatic symptoms was amitriptyline. One hundred and eighty-two PMR physicians (96.80%) had never used TeCA.

Among all the ADs, duloxetine was the most frequently preferred AD by 170 PMR physicians (90.40%) for non-organic/physical somatic symptoms. The starting dose of duloxetine for 178 PMR physicians (94.70%) was 30 mg/day. One hundred and twenty-four PMR physicians (94.70%) thought that the first duloxetine dose increase should be made at the end of 4 weeks. One hundred and twenty PMR physicians (63.80%) started duloxetine at a dose of 30 mg/day and then continued at a dose of 60 mg/day. Fifty-eight PMR physicians (30.90%) started duloxetine at a dose of 30 mg/day and continued at the same dose. Ten PMR physicians (5.30%) had experience with duloxetine at a dose of 90/120 mg/day. Eighty-four PMR physicians (44.70%) experienced duloxetine-induced hypertensive side effects.

Ninety-four PMR physicians (50.00%) prescribed ADs for 6 months for non-organic/physical somatic symptoms, while 34 PMR physicians (18.10%) prescribed them for 3 months. Seventy-four PMR physicians (39.40%) thought that ADs caused dependency. Seventy-six PMR physicians (40.40%) thought that ADs caused forgetfulness. The most common AD side effect experienced by 64 PMR physicians (34.00%) was nausea/vomiting. One hundred thirty-six PMR physicians (72.30%) thought that ADs should be used in the morning. There were four PMR physicians (2.10%) who recommended AP for any somatic symptoms. There were no PMR physicians with experience in prescribing sulpiride/amisulpride for any somatic symptoms. There were 26 PMR physicians (13.80%) who recommended BZD for any somatic symptoms. One hundred and sixty-six PMR physicians (88.30%) had experience using pregabalin/gabapentin for non-organic/physical somatic symptoms. One hundred PMR physicians (53.20%) had experience of patients developing dependency on pregabalin/gabapentin prescribed for treating somatic symptoms.

One hundred twenty-two PMR physicians (64.90%) thought that patients with somatic symptoms who were admitted to outpatient units outside PMR should be routinely referred to PMR. One hundred sixty-two PMR physicians (86.20%) had referred a patient to psychiatry at least once with a preliminary diagnosis of SSD.

COMPARISON OF PMR PHYSICIANS' APPROACHES TO SOMATIC SYMPTOMS ACCORDING TO VARIOUS VARIABLES

Various variables of PMR residents and specialists were compared and the following parameters were found to be similar between the 2 groups: Daily outpatient visit count (p=0.361), non-organic/physical somatic symptom experience (p=0.389), non-organic/physical musculoskeletal symptom experience (p=0.166), approach to non-organic/physical somatic symptom (p=0.114), most frequently prescribed AD (p=0.653) and AD class (p=0.497) in non-organic/physical somatic symptom, time of first dose increase of duloxetine (p=0. 319), duloxetine maintenance dose (p=0.119), duloxetine-induced hypertension experience (p=0.177), AD side effect experience (p=0.422), experience of prescribing AP in any somatic symptoms (p=0.398), daily outpatient visit count with a diagnosis of fibromyalgia (p=0.721), experience of prescribing BZD for any somatic symptoms (p=0.207), the most frequently prescribed AD in fibromyalgia (p=0.738), experience of pregabalin/gabapentin dependency (p=0.965), duration of treatment with AD (p=0.259).

Significant differences were found between the following parameters of PMR residents and special-

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ists: experience in prescribing AD in non-organic/physical somatic symptoms (p=0.022; specialist 96.30%, resident 85.70%), experience in prescribing pregabalin/gabapentin in non-organic/physical somatic symptoms (p=0.003; specialist 91.30%, resident 71.40%), approach of routinely referring somatic symptoms to PMR (p<0.001; specialist 70.00%, resident 35.70%), experience of referring to psychiatry with a preliminary diagnosis of SSD (p<0.001; specialist 90.00%, resident 64.30%), history of SSD diagnosis in first or second degree relatives (p=0.040; specialist 33.80%, resident 14.30%), history of AD use in first or second degree relatives (p=0.026; specialist 65.00%, resident 42.90%).

PMR physicians who thought ADs caused dependency and those who did not were compared. PMR physicians who did not think ADs caused dependency had a higher rate of initiating symptomatic treatment for somatic symptoms (p=0.011). While the maintenance dose rate of 30 mg/day was similar in PMR physicians who thought ADs caused dependency and those who did not, the maintenance dose rate of 60 mg/day was higher in those who thought ADs did not cause dependency (p=0.014). AD application periods (6 months and 1 year) were longer in PMR physicians who did not think ADs caused dependency (p=0.025).

Among PMR physicians with a history of AD use in first- or second-degree relatives, none had experience in prescribing AD. The rate of prescribing AD for non-organic/physical somatic symptoms was significantly higher among PMR physicians with a history of AD use in first- or second-degree relatives (p<0.001). Among PMR physicians with a history of AD use in first- or second-degree relatives, the rate of those who thought that ADs caused dependency was higher (p=0.001). The duration of AD application (6 months and 1 year) of PMR physicians with a history of AD use in first- or second-degree relatives was longer (p<0.001).

APPLICATION OF THE BINARY LOGISTIC REGRESSION ANALYSIS TO VARIOUS VARIABLES

Binary logistic regression analysis was used to predict the specialization status and was applied separately for each significant independent variable. According to the binary logistic regression analysis, the p values of experience of starting any AD in non-organic/physical somatic symptoms, experience of prescribing pregabalin/gabapentin in non-organic/physical somatic symptoms, routine referral of somatic symptoms to PMR, and experience of referring to psychiatry with a preliminary diagnosis of SSD were determined to be less than 0. 05. Only 3 variables (experience of prescribing pregabalin/gabapentin in non-organic/physical somatic symptoms, routine referral of somatic symptoms to PMR, experience of referring to psychiatry with a preliminary diagnosis of SSD) were included given their contribution to the model. According to the regression model (dependent variable encoding: resident=0, specialist=1), the sensitivity of our model was 7.10% and the specificity was 98.80% (Beginning block -2 Log likelihood 161.199, overall p value<0.001; Block one -2 Log likelihood 133.096[a], Cox&Snell R^2=0.125, Nagelkerke R^2=0.220; Hosmer and Lemeshow Test p value 0.627; constant p=0.009).

DISCUSSION

This study examined the experiences and attitudes of PMR residents and specialists in Türkiye regarding somatic symptom management. Variables were compared according to gender, specialty status, and approach the presence of somatic symptoms. Specialist physicians and female gender were the majority in the data. The mean age and mean duration of PMR practice in females were significantly higher than those in males.

Somatization is the term used to describe abnormal disease behavior in which patients experience and seek medical attention for physical/organic symptoms when they have underlying psychological distress.[13] Somatic complaints are the predominant reason for seeking general medical care. The majority of primary care visits consist of somatic complaints, and no physical/organic etiology can be determined in the majority of these complaints.[3,7] In a study by Khan et al. including all patients presenting to an urban primary care outpatient clinic, 48% of the admissions were reported to be psychiatric and idiopathic.[8] The most common symptom class for

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presentation was musculoskeletal symptoms, and the most common somatic symptom was pain.[8] General practitioners refer patients with somatic symptoms to relevant specialists. Musculoskeletal symptoms constitute the largest portion of referrals.[14] Jørgensen et al.'s study examined patients presenting to general practitioners in Denmark with symptoms and signs of musculoskeletal disease and were referred to physiotherapists.[7] The most common diagnoses in referred patients were myosin and back-related. They stated that, compared with the general population, patients with musculoskeletal disease had markedly poorer physical health and poorer mental health.[7] In the present study, musculoskeletal, neurological, and general symptoms were the most common somatic symptom classes for PMR physicians. General and musculoskeletal symptoms classes were the most common non-organic/physical somatic symptoms.

The most common non-organic/physical musculoskeletal symptoms encountered by PMR physicians were pain and myalgia. Our findings show that the possibility of the psychological origin of pain, which is the most common complaint in PMR practice, should not be ignored.[15] However, it was reported in this study that PMR physicians' psychiatric referral for non-organic/physical somatic symptoms was not at the desired level. It was determined that 74. 46% of PMR physicians did not refer non-organic/physical somatic symptoms to psychiatry. This suggests that patients do not have sufficient access to appropriate treatment. It has been observed that the level of knowledge of PMR specialists, who do not refer patients to psychiatry in cases of non-organic/physical somatic symptoms but manage them with symptomatic treatment, about psychotropic (dose, duration, time of application, side effects, indications, etc.) is not sufficient. Increasing the knowledge level about psychotropic agents, especially duloxetine, which is the most commonly preferred AD in patients with somatic complaints, whether of psychological origin or not, will contribute to the somatic symptom management skills of PMR physicians. Studies suggest that long-term AD pharmacotherapy (>1 year) is more effective than short-term (up to 12 weeks). Insufficient treatment duration results in increased relapse and recurrence.[16] It is thought that increasing the AD prescribing duration of PMR physicians to the optimal level will increase the benefit obtained from the treatment. The usual dose of duloxetine is 60 mg/day. At this dose, there was moderate quality evidence that duloxetine reduced pain in both painful peripheral neuropathy and fibromyalgia.[17] It is recommended to prescribe doses of 60 mg/day and above for non-organic/physical somatic symptoms.[18] There are different dosage schedules for the use of duloxetine. Kaur et al. recommend starting duloxetine at a dose of 20 mg/day and maintaining it at a dose of 60 mg/day, whereas Gao et al.[19,20] Recommend starting at a dose of 60 mg/day and maintaining it at a dose of 120 mg/day. As can be seen, the dose is recommended to be above 60 mg/day. However, it was determined that the maintenance dose of duloxetine for a significant portion of PMR physicians participating in our study was 30 mg/day. It has been shown that the number of physicians with experience prescribing duloxetine in doses above 60 mg/day is quite low. Inadequate dose use may result in failure to achieve the expected benefit from the medication.

The use of psychotropic drugs other than ADs may also be necessary in the management of non-organic/physical somatic symptoms. AP agents are the most frequently prescribed medications after ADs for treating SSD. Sulpiride and its derivatives (such as sulpiride, amisulpride, and levosulpride) are the most commonly used among these.[21,22] APs achieve their effects through their analgesic, anxiolytic and antidepressant characteristics.[22] Because of these properties, they can be used to provide direct or indirect benefit not only for non-organic/physical somatic symptoms but also for any somatic symptom.[21,22] When the findings of this presented study are examined, it is seen that almost all PMR physicians have no experience in prescribing APs. There is no PMR physician who has experience in prescribing sulpiride and its derivatives. It is thought that lack of knowledge and possible side effects are the main reasons underlying this finding. However, it is likely that the controlled use of APs will provide significant benefit to patients.[22] It has been known for some time that pregabalin/gabapentin use can lead to dependency.

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Due to this feature, caution should be exercised in the use of pregabalin/gabapentin.[23] This study found that PMR physicians have a high experience in prescribing pregabalin/gabapentin for non-organic/physical somatic symptoms. Although improvement is seen in patients diagnosed with SSD in the short term due to its anxiety-reducing feature, its negative effects will be greater in the long term.[24] In order to increase the success rates for treating non-organic/physical somatic symptoms, psychopharmacological treatments should be combined with CBT approaches.[25] In a randomized controlled study by Allen et al.[25] With patients diagnosed with SSD, it was reported that CBT provided significant improvement in patients diagnosed with SSD.

It has been determined that physicians with longer PMR experience perform more appropriate practices in the treatment and guidance of somatic symptoms (psychotropic use experience, psychiatry-PMR collaboration, distinguishing non-organic/physical symptoms/diagnoses in first- and second-degree relatives, etc.).

Although this study examined the approach of PMR physicians in Türkiye to somatic symptoms, there are problems arising from the lack or inadequacy of training in many countries. Based on the findings of this study, the approaches and experiences of PMR physicians in various countries regarding somatic symptoms can be compared. Healthcare professionals need to work in collaboration in order to maintain standardized and internationally valid training based on these and similar studies. The organization of a country's health system varies according to health priorities, geography, financing, availability of resources, and health priorities. Our findings suggest that greater emphasis should be placed on psychiatry and PMR collaboration under this organizational scheme.

LIMITATIONS

The most conspicuous aspect of this study is that it examines in detail the practices and attitudes of PMR residents and specialists regarding somatic symptoms. The cross-sectional design of this study is a limitation.

CONCLUSION

Somatic symptoms are detected in three-quarters of the primary care visits, and no organic etiology can be detected in half of these admissions. In these patients where the organic/physical etiology cannot be determined, the diagnosis of SSD should not be overlooked. In the presence of non-organic/physical somatic symptoms, PMR physicians' cooperation with psychiatrists to manage the process will increase the success of the treatment. The use of CBT approaches in addition to psychopharmacological treatment provides the best results. However, it was determined that the PMR physicians' knowledge level about psychotropic agents was not sufficient and they did not have CBT training. There is a need for training on topics such as the general properties of ADs, duloxetine use in somatic symptoms (dose, dose increase, maximum dose, time of administration, use of duration), and the prescription of APs.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

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