

Adult disability assessment in Türkiye with real-life experiences of physiatrists: A cross-sectional analytic study

Hande Özdemir¹, Derya Demirbağ Kabayel¹, Meliha Kasapoğlu Aksoy², Erhan Arif Öztürk³, Filiz Tuna⁴, Sadiye Murat⁴, İbrahim Gündoğdu⁵, Sevil Okan⁶, Nilgün Mesci⁶, İlknur Aykurt Karlıbel², Filiz Acar Sivas⁷, Hanife Çağlar Yağcı⁸, Ali Sahillioglu⁹

¹Department of Physical Medicine and Rehabilitation, Trakya University Faculty of Medicine, Edirne, Türkiye

²Department of Physical Medicine and Rehabilitation, University of Health Sciences, Bursa Yüksek İhtisas Training and Research Hospital, Bursa, Türkiye

³Department of Physical Medicine and Rehabilitation, Ankara Etlik City Hospital, Ankara, Türkiye

⁴Department of Physical Medicine and Rehabilitation, İstanbul Medeniyet University Faculty of Medicine, İstanbul, Türkiye

⁵Department of Physical Medicine and Rehabilitation, Tokat State Hospital, Tokat, Türkiye

⁶Department of Physical Medicine and Rehabilitation, Haydarpaşa Numune Training and Research Hospital, İstanbul, Türkiye

⁷Department of Physical Medicine and Rehabilitation, Ankara Bilkent City Hospital, Ankara, Türkiye

⁸Department of Physical Medicine and Rehabilitation, Göztepe Prof. Dr. Süleyman Yalçın City Hospital, İstanbul, Türkiye

⁹Department of Physical Medicine and Rehabilitation, Demiroğlu Bilim University, İstanbul, Türkiye

ABSTRACT

Objectives: The aim of this study was to determine the workload and problems of physiatrists in disability assessment in Türkiye.

Materials and methods: A 39-question electronic survey was administered between May 2023 and October 2023 to 217 physiatrists from all geographical regions of Türkiye. The survey was comprehensive in scope, encompassing a range of inquiries pertaining to demographic characteristics, time allocation for assessment, additional payment status, comprehensive training received, knowledge and skill levels, consistency of the national guideline used for disability assessment, attitudes toward decision-making, communication with other specialists, and medico-legal issues.

Results: A total of 217 physiatrists (86 males, 131 females; mean age: 41.5±8.0 years; range, 28 to 68 years), 155 (71.4%) specialists and 62 (28.6%) academics, with a mean residency experience of 11.99±8.31 years, participated in the study. The survey results showed that disability assessment was a heavy burden and a difficult task that may involve disadvantages for physiatrists, and a significant majority reported not having received comprehensive training in disability assessment during or after residency. Additionally, only 65% felt that their knowledge and skills in disability assessment were adequate. In addition, only 13.8% of physiatrists felt that the national guideline accurately reflected an individual's level of disability, with the results highlighting inadequacies and inconsistencies in the guideline. Another striking finding was that there was disagreement among clinicians regarding the rate of impairment and the determination of full dependency.

Conclusion: Physiatrists, who play an important role in disability assessment, face several challenges in this process in Türkiye. The results of this study are expected to guide the implementation of effective and accurate disability assessment methods and provide sustainable solutions.

Keywords: Disability evaluation, knowledge, psychiatry.

According to a report from World Health Organization, people with disabilities, who make up about 16% of the population, face numerous challenges, including stigma, discrimination, poverty, lack of access to education and employment, and barriers in the health care system. To address these issues, it is crucial for governments to implement

inclusive policies that provide community-based support services, including individualized support, to enable the inclusion and participation of persons with disabilities in society.^[1-3] The assessment of disability and the identification of special needs are typically carried out in accordance with national legislation and guidelines,

Corresponding author: Hande Özdemir, MD. Trakya Üniversitesi Tıp Fakültesi, Fiziksel Tıp ve Rehabilitasyon Anabilim Dalı, 22030 Edirne, Türkiye.

E-mail: handeozdemirmd@gmail.com

Received: February 29, 2024 **Accepted:** October 15, 2024 **Published online:** May 21, 2025

Cite this article as: Özdemir H, Demirbağ Kabayel D, Kasapoğlu Aksoy M, Öztürk EA, Tuna F, Murat S, et al. Adult disability assessment in Türkiye with real-life experiences of physiatrists: A cross-sectional analytic study. Turk J Phys Med Rehab 2025;71(2):146-156. doi: 10.5606/tftrd.2025.14903.



This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes (<http://creativecommons.org/licenses/by-nc/4.0/>).

with physicians historically being responsible for this task.^[4] However, in recent years, there has been an increase in publications and training courses aimed at developing skills in disability assessment.^[5-7] These efforts aim to improve the accuracy and consistency of disability assessments.

The American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment, which serve as a standardized reference for impairment rating, are widely accepted internationally and provide an objective framework for assessing disability. The guides, first published in 1958, are updated on a periodic basis, with the sixth edition being the most recent.^[8]

In comparison to previous versions, the latest edition made significant changes in the methodology of disability rating.^[6,8] However, in the USA, some jurisdictions use the new editions, while others use earlier editions.^[9] These concerns include inconsistency and uncertainty in definitions, poor reliability and reproducibility, ratings that do not reflect actual or perceived functional loss, lack of consistency across organ systems, insufficient basis in scientific evidence, complexity of the system requiring comprehensive training, and a significant deviation in the rating protocol from previous editions.^[8]

Regarding disability ratings, which have various definitions depending on different laws and insurance companies, the “Field Guide to Impairment Ratings for Adult Disability Medical Board Report” is used in Türkiye.^[10] This guide is based on an earlier version of the AMA guidelines and utilizes a scale that assigns impairment percentages to the “whole person” unit. These ratings play a crucial role in determining the specific needs and supports required by individuals with disabilities. The terms impairment and disability are often used incorrectly, but the impairment rating provides an objective measure of the severity of disability in terms of disease and associated loss of structure and function.^[6]

A number of studies have sought to elucidate the concerns of physicians with regard to the assessment of disability, examining the factors that give rise to these concerns. These studies have identified several underlying causes. Among these are a dearth of knowledge and skills pertaining to the assessment of disabilities, the constraints of limited time available for completion of assessments and forms, the inadequacy of financial reimbursement, and concerns about the potential risks to the doctor-patient relationship.^[7,11-14] Psychiatrists, with their focus on functionality in the

evaluation and treatment of medical disorders, have an important role in disability assessment based on measurement of functionality. Nevertheless, a review of the literature reveals a lack of studies from the perspective of psychiatrists examining the disability assessment process. This study aimed to determine the workload and problems faced by psychiatrists in disability assessment in Türkiye.

MATERIALS AND METHODS

This survey-based study was conducted between May 2023 and October 2023 among psychiatrists who had previously participated or were currently participating in the disability health committee in Türkiye. The electronic survey was organized by three experienced academicians who were members of the Disability and Rehabilitation Working Group of the Turkish Physical Medicine and Rehabilitation Association, and the electronic survey form was shared with the members of the working group and finalized in line with the suggestions received.

A 39-question electronic survey was conducted using Google Forms to gather information about disability assessment among participants. The survey covered various topics, including demographic characteristics, time allocation for assessment, additional payment status, comprehensive training received, knowledge and skill levels, consistency of the national guideline used for disability assessment, attitudes towards decision-making, communication with other specialists, and medico-legal issues. The survey comprised a range of question formats, including single-choice, multiple-choice, Likert-type, and open-ended questions. In the survey, psychiatrists were requested to evaluate the average difficulty of nine predefined, potentially challenging common tasks on a Likert-type scale, with 1 indicating the easiest, and 5 indicating the most difficult. The tasks included in the survey were as follows: disability assessment, forensic report writing, giving bad news, prescribing orthotics/prosthetics, preparing a form for the patient to take time off work, pain management, prescribing gabapentinoids/opioids, prescribing exercise, and prescribing physical agents. An open-ended question was posed to ascertain the participants' opinions about disability assessment. The survey employed multiple-choice questions to ascertain information regarding the scales utilized in making dependency decisions, the most challenging issues encountered in the assessment of disability, and the level of communication with other specialists. Questions other than these were single-choice questions.

The study was carried out by sending an online link to the physiatrists via email and online social networking sites. Physiatrists who were not willing to spend time filling out the electronic survey and did not have sufficient knowledge and equipment to answer the online survey via mobile phone or computer were excluded from the study. By returning the completed questionnaire, participants provided their consent to participate in the survey. The study was organized in accordance with the principles of the Declaration of Helsinki. The study protocol approval was obtained from the Scientific Research Ethics Committee of Trakya University Faculty of Medicine (date: 08.05.2023, no: TUTF-GOBAEK 2023/171).

Sample size calculation

A two-sided alpha level of 5% and Cohen's *d* of 0.5 (middle effect size) was used to achieve 95% power. The minimal required sample size was 105 physiatrists with more than 10 years of experience and 105 physiatrists with 10 years or less of experience.

Statistical analysis

Data were analyzed using IBM SPSS version 23.0 software (IBM Corp., Armonk, NY, USA). Results of the study were presented as mean \pm standard deviation (SD) and median (min and max) for quantitative variables and frequency for qualitative variables. The Wilcoxon signed-rank test was used to compare

difficulty levels among nine common tasks, which were rated by physiatrists on a Likert scale. A Pearson chi-square (χ^2) test was used to compare whether physiatrists with more than 10 years of experience and physiatrists with 10 years or less of experience had received comprehensive training in disability. In addition, the Mann-Whitney U test was used to compare the average difficulty levels of these two groups for the nine common tasks. All results were considered significant at a level of $p < 0.05$.

RESULTS

A total of 217 physiatrists (86 males, 131 females; mean age: 41.5 ± 8.0 years; range, 28 to 68 years) from all geographical regions, 155 (71.4%) specialists and 62 (28.6%) academics with a mean residency experience of 11.99 ± 8.31 years, participated in the study. The sociodemographic characteristics of the participants are shown in Table 1.

Of all participants, 23.5% stated that they received comprehensive disability assessment training during their residency and 25.3% after their residency. Additionally, 12.4% described their level of knowledge and skill in disability assessment as very adequate, 53% as adequate, 29.5% as partially adequate, 4.6% as inadequate, and 0.5% as very inadequate. Ninety-four (85.5%) of physiatrists with more than 10 years of residency experience and 72 (67.3%) of physiatrists

TABLE 1
Sociodemographic characteristics of the participants

	n	%	Mean \pm SD	Median	Min-Max
Age (year)			41.5 \pm 8.0	41	28-68
Title					
Specialists	155	71.4			
Academicians	62	28.6			
Residency experience (year)			11.99 \pm 8.31	11	1-41
Geographical region					
Marmara region	65	30.0			
Central Anatolia region	47	21.7			
Aegean region	27	12.4			
Black Sea region	27	12.4			
Mediterranean region	22	10.1			
Southeastern Anatolia region	15	6.9			
Eastern Anatolia region	14	6.5			
Institution					
Training Research Hospital and City Hospital	92	42.4			
Public Hospital	72	33.2			
Medical Faculty	37	17.1			
Private Hospital	12	5.5			
Private Clinic	4	1.8			

SD: Standard deviation.

TABLE 2
Physiatrists' comprehensive training in disability assessment and average difficulty for nine common tasks

	All physiatrists (n=217)					Physiatrists with ≤10 years of residency experience (n=107)					Physiatrists with >10 years of residency experience (n=110)					p
	n	%	Mean±SD	Median	Min-Max	n	%	Mean±SD	Median	Min-Max	n	%	Mean±SD	Median	Min-Max	
Comprehensive training in disability assessment	51	23.5				35	32.7				16	14.5				0.002**
Tasks*																
Forensic medical report writing			3.84±1.18	4	1-5			3.94±1.07	4	1-5			3.74±1.15	4	1-5	0.191
Giving bad news			3.71±1.20	4	1-5			3.61±1.12	4	1-5			3.81±1.27	4	1-5	0.155
Disability assessment			3.17±1.11	3	1-5			3.01±1.04	3	1-5			3.33±1.17	3	1-5	0.045***
Orthotic/prosthetic prescription			2.99±1.1	3	1-5			3.10±1.11	3	1-5			2.87±1.17	3	1-5	0.120
Preparing a form for the patient to take time off work			2.83±1.18	3	1-5			2.81±1.22	3	1-5			2.85±1.14	3	1-5	0.819
Pain management			2.65±1.1	3	1-5			2.57±1.07	3	1-5			2.73±1.96	3	1-5	0.317
Gabapentinoid/opioid prescription			2.58±1.16	2	1-5			2.46±1.08	2	1-5			2.69±1.22	2	1-5	0.212
Exercise prescription			2.17±1.02	2	1-4			2.16±0.88	2	1-4			2.16±1.15	2	1-5	0.473
Physical therapy prescription			1.67±0.87	2	1-4			1.74±0.78	2	1-4			1.61±0.94	2	1-5	0.052

SD: Standard deviation; * All procedures were graded on a scale of 1=easiest to 5=most difficult; ** Difference estimates by Pearson χ^2 test; *** Difference estimates by Mann-Whitney U test. Level of significance set at $p<0.05$.

with 10 years or less residency experience stated that they did not receive comprehensive training in disability assessment during or after residency. Among physiatrists with more than 10 years of residency experience, the proportion of those who received comprehensive training in disability assessment during or after residency was statistically significantly lower (Pearson chi-square test, $p=0.002$).

In the recent study, among the nine common tasks identified in psychiatry, disability assessment was identified as the third most challenging, following forensic report writing and the delivery of difficult news. This was followed by the prescription of orthotics and prosthetics, the preparation of a form for the patient to take time off work, pain management, the prescription of gabapentinoids and opioids, the prescription of exercise, and the prescription of physical agents. The mean difficulty score for disability assessment was found to be significantly different (Wilcoxon signed-rank test, $p<0.001$) for all other tasks except for the orthotic/prosthetic prescription task ($p=0.069$), across all participants. Physiatrists with more than 10 years of residency experience found disability assessment more challenging than physiatrists with 10 or less years of residency experience (Mann-Whitney U test, $p=0.045$; Table 2).

The study found that 61.8% of physiatrists had a dedicated outpatient disability assessment clinic and that these assessments were typically conducted every weekday. Of the participants, 50.7% reported evaluating at least 20 patients per day for disability, with 92.2% reporting a maximum of 15 min per patient for evaluation (Table 3). When asked about triage at the disability health committee, the majority of participants (91.2%) reported that it was done by the health committee secretary, 3.7% by a general practitioner, 2.8% by a specialist, and 2.3% by the head of the committee. In the survey, participants were asked whether a disability evaluation at their institution provided additional payment advantages. Only a small percentage of participants (2.3%) reported that the disability assessment provided additional payment benefits, with the majority reporting that it provided either insufficient payment benefits (8.3%) or no payment benefits at all (58.5%). A significant portion of participants (30.9%) also reported that disability evaluation had disadvantages. The study found that only 13.8% of physiatrists believed that the guideline used for disability assessment accurately reflected the disability rating of individuals in Türkiye. Physiatrists identified the determination

of disability in peripheral nervous system diseases and upper extremity orthopedic disorders and the assessment of full dependence as the most challenging issues in disability assessment (Table 4). Regarding communication with other specialists, the participants were asked the question "Which situations do you encounter when determining the disability rate in patients with common diagnoses with other specialties?" According to the answers given to the multiple-choice question, a majority of physiatrists (64.1%) believed that different branches could provide different disability rates from the same

tables, while 58.9% believed that the same diagnosis could result in different scores from different tables. Additionally, 26.3% believed that other branches might not assign a score, resulting in patients not receiving a disability rate. On the other hand, 59.9% of physiatrists reported no problems in communicating with other branches. Regarding the rate for gait impairment in patients with mobility limitations due to systemic diseases rather than an orthopedic or neurological disorder, 10.6% of physiatrists answered "yes," 29.5% answered "sometimes," and 59.9% answered "no."

TABLE 3
Time allocated for disability assessment and clinical workload

	n	%	Mean±SD	Median	Min-Max
What is the average number of patients cared for by a physician in the general PM&R outpatient clinic at the institution where you work?					
1-20	11	5.1			
21-50	74	34.1			
51-80	127	58.5			
81-100	4	1.8			
>100	1	0.5			
Is disability evaluation carried out in a separate PM&R outpatient clinic in the institution where you work?					
Yes	134	61.8			
No	83	38.2			
How many outpatient clinic days per week are disability evaluations carried out within the PM&R in the institution you work at?					
1	36	16.6			
2	15	6.9			
3	15	6.9			
4	8	3.7			
5	143	65.9			
On average, how many patients are evaluated per day in the disability assessment clinic?					
1-20	107	49.3			
21-50	81	37.3			
51-80	20	9.2			
81-100	4	1.8			
>100	5	2.3			
Approximately how many minutes can you devote to a patient's disability assessment? (in general, except for hand evaluation)?					
≤5	98	45.2			
6-15	102	47.0			
16-30	15	6.9			
>30	2	0.9			
Approximately how many minutes can you devote to the disability assessment of a patient's hand dysfunction?					
≤5	44	20.3			
6-15	104	47.9			
16-30	54	24.9			
>30	14	6.9			
In your opinion, how many minutes should be allocated to a patient for disability assessment?			20.06±8.48	20	3-60

SD: Standard deviation; PM&R: Physical medicine and rehabilitation.

TABLE 4
Medico-legal situations and problems related to disability assessment

	n	%
How adequate do you think the national guide to impairment ratings due to musculoskeletal disorders is in terms of assessing the full extent of a person's disability?		
Sufficient	30	13.8
Partially sufficient	119	54.8
Insufficient	54	24.9
Very inadequate	14	6.5
In which area of adult disability assessment do you find it is most difficult?		
Spinal disorders	55	25.3
Orthopedic disorders of the upper extremity	85	39.1
Orthopedic disorders of the lower extremity	16	7.3
Disorders of central nervous system	13	6.0
Disorders of the peripheral nervous system	102	47.0
Systemic rheumatic diseases	79	36.4
Full dependency decision	107	49.3
Approximately what percentage of your patients do you make the decision to be fully dependent?		
0%	2	0.9
1-25%	199	91.7
26-50%	15	6.9
51-75%	1	0.5
75-100%	0	0
Do you think physiatrists disagree about the decision on full dependency?		
Always	6	2.8
Often	62	28.6
Sometimes	105	48.4
Rarely	44	20.3
None	0	0
Which branch of the institution you work in decides on the dependency level of the neurological patient?		
PM&R	31	14.3
Neurology	24	11.1
Joint decision	162	74.7
Do you encounter applications for disability evaluation in patients who may recover completely with treatment ?		
Always	19	8.8
Often	74	34.1
Sometimes	77	35.5
Rarely	42	19.4
None	5	2.3
When making a disability assessment, do you experience pressure from the patient/institution/other branch physicians regarding the high impairment rating or dependency level?		
Patient pressure	78	35.9
Institutional pressure	7	3.2
Pressure from other branches	32	14.7
All	40	18.4
None	60	27.6
To what extent is the final decision regarding full dependency left to the physiatrist in the disability health committees you participate in?		
Always	17	7.8
Often	143	65.9
Sometimes	43	19.8
Rarely	14	6.5
None	0	0
Approximately what percentage of patients you evaluate for disability evaluation are second reports based on objection?		
0%	10	4.6
1-25%	175	80.6
25-50%	27	1.4
51-75%	5	2.3
≥ 76%	0	0
Approximately what percentage of patients whose disability rate you estimated in the second report based on the appeal is exactly the same as the disability rate estimated in the first report?		
0%	8	3.7
1-10%	24	11.1
11-30%	21	9.7
31-60%	53	24.4
61-100%	111	51.2

SD: Standard deviation; PM&R: Physical medicine and rehabilitation.

While making a dependency decision, 53.5% of physiatrists stated that they did not use any scale. Of those who did use a scale, 52% said that they used the Functional Independence Measure, 22% used the Barthel Index, 25% used both the Functional Independence Measure and Barthel Index, and 1% used the Katz Scale. In addition, 31.4% stated that physicians often or always disagreed on the decision of full dependence, while 73.7% stated that the final decision on dependence was often or always made in accordance with the physiatrist's opinion.

A wheelchair-dependent patient with urinary and fecal incontinence and no issues in both upper extremities was defined as partially dependent by 153 (70.5%), fully dependent by 62 (28.6%), and independent by 2 (0.9%) of the participating physiatrists. When fully dependent individuals with neurologic and musculoskeletal diseases who were not clinically stable requested a disability evaluation, 79 (36.4%) physiatrists stated that they did not determine a disability rate and recommended that they reapply after a period of time, while 138 (63.6%) physiatrists stated that they gave a temporary report. The rate of physiatrists who indicated that they often or always encountered disability applications in patients who could achieve full recovery with treatment was 42.9%. In determining the duration of the report, 51 (23.5%) physiatrists stated that the decision of the branch with the highest disability rate was valid, 157 (72.4%) physiatrists stated that a joint decision was made, and nine (4.1%) physiatrists stated that the decision was made by the head of the committee.

The study conducted on physiatrists showed that 72.4% of them experienced pressure from various entities, such as patients, institutions, and other specialty physicians, regarding their decisions. Most of the pressure came from patients. In terms of violence, 52.1% of the physiatrists reported experiencing verbal or physical violence from patients or their relatives related to disability evaluation. Additionally, 9.2% of the physiatrists faced lawsuits related to disability evaluation. When it came to objections to disability evaluation reports, 24.9% of the participants said it was due to the level of dependency, 15.2% attributed it to the degree of disability, and 59.9% stated that both the level of dependency and the degree of disability were reasons for the appeal. In addition, only 51.2% of the physiatrists stated that when patients who objected to the disability assessment report were reevaluated,

the degree of disability remained the same in 61 to 100% of the cases (Table 4).

In the section where the physiatrists who participated in the survey expressed their opinions on the subject in text form, it was emphasized that disability assessment imposed a significant responsibility, safety concerns, and workload for physiatrists. Furthermore, they noted that the clinical time was insufficient, that regular training and councils were needed in this regard, that there were various limitations and inconsistencies in the national disability assessment guideline, and that more practical and clearer scales for the decision of full dependency should be used.

DISCUSSION

The evaluation of disability presents a significant challenge for physicians, as noted by Cailliet^[15] in 1969. Although half a century has passed, this remains true today. Similar to the 2005 study by O'Fallon and Hillson,^[16] physiatrists in the current study identified disability assessment as more difficult than many of the core tasks of physiatry, such as pain management, exercise prescription, and physical agent prescription. This highlights the ongoing struggle that physiatrists face in objectively assessing disability.^[14,17]

Physicians have expressed concerns about disability assessment for a variety of reasons. These include a lack of knowledge and skills in this area, limited time to complete assessments and forms, inadequate reimbursement, and a fear of potentially compromising the doctor-patient relationship.^[7,11-14] The literature recommends 30 min for an efficient and accurate disability assessment, but most physiatrists in the survey could only spare a maximum of 15 min, with some having as little as 5 min.^[11] One of the physiatrists who participated in the survey commented, "Very busy disability evaluation appointments put the physiatrists in the position of a physician working to retire patients with reports instead of treating them." In addition, inadequate additional payment for this task, which requires experience and attention, reduces physician motivation to perform disability evaluations. In fact, 58.5% of the physiatrists surveyed said that performing disability assessment in their institution did not provide any additional payment advantage, and 30.9% even believed it to be a disadvantage.

The incorporation of disability-related concepts and skills into medical education varies greatly

among institutions in different countries. Many medical students graduate with little to no exposure to disability related knowledge, skills, and attitudes.^[18,19] According to a study conducted in 2020 in the USA, only four (2%) of 154 accredited medical schools required an physical medicine and rehabilitation (PM&R) clerkship experience, and seven (4%) required a musculoskeletal rotation (general musculoskeletal, orthopedic surgery, and PM&R).^[20] In contrast, in Türkiye, the PM&R clerkship is mandatory in all medical faculties, “counseling on disability report” has been recognized as a basic medical practice since 2020, and basic knowledge on this subject is gained during the PM&R clerkship.^[21]

Physiatrists possess distinctive qualifications among medical specialists, enabling them to perform essential impairment assessments and evaluations pivotal for determining disabilities. The scientific and medical principles central to PM&R emphasize human functionality, enhancing physiatrists’ proficiency in navigating the evolving realm of disability medicine. This specialized field, considered a subspecialty within clinical medicine, encompasses the identification, prediction, prevention, assessment, evaluation, and management of impairments and disabilities at both individual and population levels.^[22] Within the subsections of the current national disability guide utilized in Türkiye, the domains employed by physiatrists for musculoskeletal and neurological scoring comprise 47% of the entire guide. This underscores the significant role of physiatrists in disability assessment, particularly within the PM&R field, where the term “disability” is inherent in its definition.

The field of disability assessment has become increasingly important in medicine, leading to its inclusion as a separate chapter in psychiatry textbooks and the development of training programs. Physiatrists are making significant contributions to disability assessment guidelines, indicating the growing importance of impairment grading and disability assessment for these specialists.^[9,12,17,23,24] However, this study found that most physiatrists did not receive comprehensive training in disability assessment during or after residency training. Only 65% of them felt that their knowledge and skills in disability assessment were adequate. Interestingly, physiatrists with more residency experience reported perceiving disability assessment as a more difficult task compared to those with less residency

experience. Lower rates of comprehensive training in disability assessment may explain this. Additionally, patient volume, lengthy assessments, lack of financial benefits, and burden of responsibility may also contribute to this issue. Efforts to standardize specialized training in disability assessment have gained momentum in recent years. It is expected that training rates for physiatrists in this area will increase.

Advances in medical diagnostic and treatment have led to an increase in disabilities and have changed the way medical impairments are measured. This has created a need to update the guidelines used to assess disability to keep pace with medical advances. In Türkiye, the national guideline based on the AMA guidelines is considered by physiatrists to be inadequate in reflecting the level of disability. Physiatrists are particularly challenged in assessing disability related to peripheral nervous system and upper extremity orthopedic conditions and in determining whether or not a patient is fully dependent.

Both the AMA guidelines and national guidelines devote a significant portion of their content to the neuromusculoskeletal system. Various specialists, such as neurologists, neurosurgeons, orthopedists, rheumatologists, and physiatrists, may be involved in the evaluation and treatment of patients with neuromusculoskeletal problems. However, this can lead to confusion when determining the disability rate for the patients.^[25] In this study, 58.9% of physiatrists mentioned that different disability rates could be assigned to the same patient with the same diagnosis by different specialists using different tables. In addition, 40% of physiatrists stated that they may need to assess disability due to gait disturbance in patients with mobility limitations due to systemic diseases rather than an orthopedic or neurological disorder. These findings underline the complex nature of assessing disabilities in patients with neuromusculoskeletal problems.

According to the study, 79.4% of physiatrists reported feeling pressure when making decisions about disability decisions, primarily from patients. Additionally, 52% of physiatrists experienced verbal or physical violence related to disability evaluations, and 9% were involved in lawsuit processes. Feeling pressure can affect the accuracy of the decisions and make the physicians uncomfortable. Furthermore, the lack of standardized solutions in determining full dependency status contributes to physician discomfort.

These findings are indicative of the challenges faced by physiatrists in their professional lives when dealing with disability assessments. Pressure and violence from patients and their families, as well as potential legal consequences, contribute to a stressful work environment for these health professionals.

The use of scales for full dependency decision making is limited due to several factors, such as inadequate coverage of the disability domain, bias, long administration time, low reliability, validity, and responsiveness, or a focus on monitoring the progress of inpatient rehabilitation patients.^[26] The study found that only half of the participants used these scales to make a full dependency decision, resulting in a lack of consensus among physiatrists. Approximately two-thirds of the participants defined a patient with certain clinical characteristics as partially dependent, while approximately one-third defining the patient as fully dependent. A similar study conducted in the USA also showed a lack of agreement among physicians, with 39% interpreting a case with complex clinical features as not disabled, 39% as dependent, and 22% as fully dependent. Overall, the assessment of disability in patients with complex or ambiguous features showed a lower rate of physician agreement. Lack of consensus among physicians in disability assessment can also be observed in the fact that the reassessment reports given as a result of the reevaluation of patients who object to the disability assessment report are not in the same direction as the first report. Keten et al.^[27] studied the reports of 43 patients who applied in Ankara in 2012 and found that in the second evaluation, 84% of the applicants had a change in the disability rate compared to the previous report, and 42% had a change in the decision regarding their dependency status.

This study found that the physiatrists encounter individuals who present for disability evaluations with treatable impairments as well as permanent impairments. The AMA guidelines focus only on permanent disabilities and are clear on this issue. On the other hand, the national guideline recommends that a temporary disability report be prepared if the individual's condition is expected to improve over time with medication, surgery, or rehabilitation, while some sections state that disability should be evaluated in stable conditions or after at least one year of appropriate treatment.^[10] This inconsistency can lead to confusion. It has been observed that there are different practices among physiatrists, such as giving a temporary report or postponing the

issuance of a disability report, for individuals with clinically unstable neuromusculoskeletal conditions who apply for disability evaluation. These findings emphasize the necessity for more precise guidelines to accurately assess and determine impairment rating for individuals with both permanent and potentially improving conditions.

According to the International Classification of Functioning, Disability, and Health, when assessing an individual's health or functional limitations, various factors such as impairment, activity, and participation limitations, as well as environmental, particularly architectural, factors are considered. Therefore, implementing objective national disability guidelines and dependency-independency guidelines tailored to specific environmental factors of Türkiye, along with providing adequate disability training and assessment time, can reduce the risk of physiatrists and other specialists being implicated in allegations of misconduct.

Given that violence against healthcare workers is a significant issue both nationally and internationally, it is undeniable that updating the national guideline is crucial. Additionally, addressing the safety concerns of physicians conducting disability assessments is of paramount importance.

Although it was originally planned to include an equal number of physiatrists from all geographical regions of Türkiye, the fact that this was not achieved is a limitation of our study. However, this was an expected situation given the variability in the population and the total number of physiatrists in the geographical regions.

In conclusion, physiatrists, who specialize in the evaluation and treatment of functional medical disorders, play an important role in disability assessment. However, there are several difficulties they face in this process in Türkiye. These include a lack of knowledge and skills specific to disability assessment, a lack of standardized guidelines and laws that make it difficult to accurately determine the level of disability, and a lack of consensus among physicians on this issue. Moreover, physiatrists often face the challenge of health-related violence and encounter constraints on time available for clinical evaluations. These factors may exert pressure on them when making decisions. To overcome these challenges, the authors recommend emphasizing post-residency educational sessions to promote common attitudes and behaviors among physiatrists. It is expected that the results of this study will guide

the effective and accurate application of disability assessment methods and the provision of durable solutions.

Data Sharing Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions: Idea/concept, design, control/supervision data collection and/or processing, critical review: H.Ö., D.D.K., M.K.A., E.A.Ö., F.T., S.M., İ.G., S.O., N.M., İ.A.K., F.A.S., H.Ç.Y., A.S.; Analysis and/or interpretation, literature review, writing the article, references and fundings, materials: H.Ö., D.D.K., M.K.A., E.A.Ö., F.T.

Conflict of Interest: The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding: The authors received no financial support for the research and/or authorship of this article.

REFERENCES

- Guterman AS. Disability and Development (December 04, 2024). Available at: <https://ssrn.com/abstract=4504319> doi: 10.2139/ssrn.4504319.
- Iezzoni LI, Rao SR, Ressler J, Bolcic-Jankovic D, Agaronnik ND, Donelan K, et al. Physicians' perceptions of people with disability and their health care. *Health Aff (Millwood)* 2021;40:297-306. doi: 10.1377/hlthaff.2020.01452.
- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: A systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018;392:1789-858. doi: 10.1016/S0140-6736(18)32279-7.
- Kuitert JH. Diagnosis and disability evaluations including special measurements. *Am Assoc Ind Nurses J* 1966;14:9-14. doi: 10.1177/216507996601400902.
- Blaisdell J, Talmage JB. Fundamental Principles of the AMA Guides, Sixth Edition. *AMA Guides Newsletter*; 2020;25:10-2. doi: 10.1001/amaguidesnewsletters.2020.NovDec03.
- Rondinelli RD, Ranavava MI. Practical aspects of impairment rating and disability determination. In: Cifu DX, editor. *Braddom's Physical Medicine and Rehabilitation*: 6th ed. Philadelphia: Elsevier; 2021. p. 74-88.
- Maness DL, Khan M. Disability evaluations: More than completing a form. *Am Fam Physician* 2015;91:102-9.
- Forst L, Friedman L, Chukwu A. Reliability of the AMA guides to the evaluation of permanent impairment. *J Occup Environ Med* 2010;52:1201-3. doi: 10.1097/JOM.0b013e3181fd2782.
- Bellamy N, Campbell J. A selective critical but constructive desktop appraisal of the American Medical Association Guides to the Evaluation of Permanent Impairment (AMA 6). *Int J Disabil Manag* 2009;4:27-51. doi: 10.1375/jdmr.4.2.27.
- Erişkinler için engellilik sağlık kurulu raporu. Available at: <https://www.resmigazete.gov.tr/eskiler/2019/02/20190220-2-1.pdf>.
- Sekoni KI, Jamil H. Completing disability forms efficiently and accurately: Curriculum for residents. *PRiMER* 2018;2:9. doi: 10.22454/PRiMER.2018.754414.
- Fu JB, Osborn MP, Silver JK, Konzen BS, Ngo-Huang A, Yadav R, et al. Evaluating disability insurance assistance as a specific intervention by physiatrists at a cancer center. *Am J Phys Med Rehabil* 2017;96:523-8. doi: 10.1097/PHM.0000000000000641.
- Samancı R, Erden Y, Ataoğlu S. Çocuklar için özel gereksinim değerlendirmesine ilişkin yöntemlik sonrası fiziksel tıp ve rehabilitasyon hekimlerinin karşılaştığı zorluklar. *J PMR Sci* 2023;26:182-90. doi: 10.31609/jpmr.2022-93721
- Martelli MF, Zasler ND, Johnson-Greene D. Promoting ethical and objective practice in the medicolegal arena of disability evaluation. *Phys Med Rehabil Clin N Am* 2001;12:571-85.
- Cailliet R. Disability evaluation: A psychiatric method? *South Med J* 1969;62:1380-2. doi: 10.1097/00007611-196911000-00019.
- O'Fallon E, Hillson S. Brief report: Physician discomfort and variability with disability assessments. *J Gen Intern Med* 2005;20:852-4. doi: 10.1111/j.1525-1497.2005.0177.x.
- Rondinelli RD, Katz RT. The physiatrist as preferred disability specialist. *Phys Med Rehabil Clin N Am* 2001;12:15-18.
- Woodard LJ, Haverkamp SM, Zwiygart KK, Perkins EA. An innovative clerkship module focused on patients with disabilities. *Acad Med* 2012;87:537-42. doi: 10.1097/ACM.0b013e318248ed0a.
- Brown RS, Graham CL, Richeson N, Wu J, McDermott S. Evaluation of medical student performance on objective structured clinical exams with standardized patients with and without disabilities. *Acad Med* 2010;85:1766-71. doi: 10.1097/ACM.0b013e3181f849dc.
- Benbassat D, Cervero RM, Miller ME, Hager N, Konopasky A. Quantity and quality of physical medicine and rehabilitation clerkships in US medical schools. *Am J Phys Med Rehabil* 2021;100:1152-9. doi: 10.1097/PHM.0000000000001717.
- Mezuniyet öncesi Tıp Eğitimi Ulusal Çekirdek Eğitim Programı 2020. Available at: https://www.yok.gov.tr/Documents/Kurumsal/egitim_ogretim_dairesi/Ulusal-cekirdek-egitimi-programlari/mezuniyet-oncesi-tip-egitimi-cekirdek-egitimi-programi.pdf. [Accessed: 28.01.2024]
- Rondinelli RD, Eskay-Auerbach M. Healthcare provider issues and perspective: Impairment ratings and disability determinations. *Phys Med Rehabil Clin N Am* 2019;30:511-22. doi: 10.1016/j.pmr.2019.04.001.
- Oral A, Aydın R, Ketenci A, Akyüz G, Sindel D, Yalman A. Dünya Engellilik Raporu: Türkiye'de engellilik ile ilgili konuların analizi ve fiziksel tıp ve rehabilitasyon tıp uzmanlığının katkıları. *Turk J Phys Med Rehab* 2016;1:83-97. doi: 10.5606/tftrd.2016.219.
- Kok R, Hoving JL, Verbeek J, Schaafsma FG, van Dijk FJ. Integrating evidence in disability evaluation by social insurance physicians. *Scand J Work Environ Health* 2011;37:494-501. doi: 10.5271/sjweh.3165.

25. Polat M, Ayaz N. Inter-observer agreement of the musculoskeletal system disability levels of individuals presenting at disability health boards. *Medicine* 2022;11:628-32. doi:10.5455/medscience.2022.01.06.
26. Cohen ME, Marino RJ. The tools of disability outcomes research functional status measures. *Arch Phys Med Rehabil* 2000;81:S21-9. doi: 10.1053/apmr.2000.20620.
27. Keten A, Akçan R, Karapirli M, Durgut P, Kılınç İ, Karacaoğlu E, et al. Sağlık kuruluna itiraz nedeni ile başvuran olguların incelenmesi. *Adli Tıp Dergisi* 2012;26:20-6.