The level of knowledge about restless legs syndrome in the population that apply to primary health care services

Birinci basamak sağlık hizmetlerine başvuran toplumda huzursuz bacak sendromu hakkında bilgi düzeyi

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ABSTRACT

Objectives: The purpose of the study was to determine the level of awareness of restless legs syndrome in individuals admitted to primary health care services.

Patients and Methods: This survey was conducted with 240 participants (99 males, 141 females; mean age: 32.6±13.1 years; range, 18 to 78 years) between July 2020 and July 2021. In the first stage of the survey, the demographic characteristics of the participants (those who admitted to primary health care services to receive health care), such as age, sex, and educational status, were examined. In the second stage, the survey questions were asked to the participants to determine the level of awareness of restless legs syndrome, and in the third stage, the participants answered the questions about the International Restless Legs Syndrome Study Group criteria to determine whether they had restless legs syndrome.

Results: Of the respondents, 37.1% answered "Yes" to the question, "Have you ever heard of restless legs syndrome?" When the participants were asked the question, "Do you know what this disorder is this rate decreased to 30.8%. The rate of the patients who answered "Yes" to all four questions of the International Restless Legs Syndrome Study Group diagnostic criteria was 28.1%.

Conclusion: Although the number of patients meeting the International Restless Legs Syndrome Study Group diagnostic criteria is high, a small number of patients have information about the disease. It is of major importance for the public health to have more information on this disorder that affects quality of life and sleep.

Keywords: Awareness, knowledge, population, restless legs syndrome.

ÖZ

Amaç: Çalışmanın amacı, birinci basamak sağlık hizmetlerine başvuran kişilerde huzursuz bacak sendromu konusundaki farkındalık düzeyini belirlemekti.

Hastalar ve Yöntemler: Bu anket 240 katılımcı (99 erkek, 141 kadın; ort. yaş 32.6±13.1 yıl; dağılım, 18-78 yıl) ile Temmuz 2020 - Temmuz 2021 tarihleri arasında yürütüldü. Araştırmanın ilk aşamasında katılımcıların (sağlık hizmeti almak üzere birinci basamak sağlık hizmeti merkezine başvuran kişiler) yaş, cinsiyet ve eğitim durumu gibi demografik özellikleri incelendi. İkinci aşamada huzursuz bacak sendromu ile ilgili farkındalık düzeyini belirlemek için katılımcılara anket soruları soruldu ve üçüncü aşamada katılımcılar huzursuz bacak sendromu olup olmadığını belirlemek için Uluslararası Huzursuz Bacak Sendromu Çalışma Grubu kriterleri ile ilgili soruları cevapladı.

Bulgular: Katılımcıların %37,1'i "Huzursuz bacak sendromunu hiç duydunuz mu?" Sorusuna "Evet" cevabını verdi. "Bu bozukluğun ne olduğunu biliyor musunuz?" sorusu sorulduğunda, bu oran %30.8'e düştü. Uluslararası Huzursuz Bacak Sendromu Çalışma Grubu tanı kriterlerinin dört sorusuna da "Evet" yanıtı veren hasta oranı %28.1 idi.

Sonuç: Uluslararası Huzursuz Bacaklar Sendromu Çalışma Grubunun tanı kriterlerini karşılayan hasta sayısı yüksek olmasına rağmen, az miktarda hasta hastalık hakkında bilgi sahibiydi. Yaşam kalitesini ve uyku kalitesini etkileyen bu bozukluk hakkında daha fazla bilgi sahibi olunması halk sağlığı açısından büyük önem taşımaktadır.

Anahtar sözcükler: Farkındalık, bilgi düzeyi, toplum, huzursuz bacak sendromu.

Restless legs syndrome (RLS)/Willis-Ekbom disease is a sensorimotor disorder that particularly affects the legs.[1] The diagnosis is made based on the diagnostic criteria of the International Restless Legs Syndrome Study Group (IRLSSG).[2] The prevalence of RLS varies regionally. Its prevalence is between 5 and 12% in the European population, 1 and 8% in Central Asian countries, and less than 1% in African countries.[3] Although the disease is common, since the symptoms are not known exactly, it is rarely diagnosed.[4,5] The prevalence of RLS in Türkiye has been reported to be between 2.5 and 7%.[4,6,7] Studies related to awareness of RLS in Türkiye are lacking or limited. Hence, the purpose of our study was to determine the level of awareness of RLS in individuals admitted to primary health care services.

PATIENTS AND METHODS

This survey study was conducted with 240 participants (99 males, 141 females; mean age: 32.6±13.1 years; range, 18 to 78 years) at the Kahramanmaraş Sütçü Imam University, Faculty of Medicine Department of Neurology between July 2020 and July 2021. The study population was randomly selected from individuals who applied to primary health care services in the province of Kahramanmaraş, Türkiye. In the first stage of the survey, the demographic characteristics of the patients, such as age, sex, and educational status, were recorded. In the second stage, the survey questions were asked to the participants to determine their level of awareness of RLS, and

in the third stage, the participants answered the questions about IRLSSG criteria to determine whether they had RLS (Table 1). In addition, the study group was asked whether there were any members of their family previously diagnosed with RLS. Those who had dementia or severe cognitive impairment were excluded from the study.

Statistical analysis

All analyses were performed using the IBM SPSS version 21.0 software (IBM Corp., Armonk, NY, USA). Descriptive analyses were expressed as frequencies and percentages for categorical variables and mean±standard deviation (SD) (normally distributed data) or median for continuous variables (nonnormally distributed data). The Kolmogorov-Smirnov test and histogram analysis were used to assess the distribution of the data. Spearman's correlation analysis was used to evaluate the association between the education level and the number of correct answers. A *p* value <0.05 was considered statistically significant.

RESULTS

The sociodemographic characteristics of the participants are shown in Table 2. The most common chronic diseases were hypertension, diabetes, asthma, thalassemia, and migraine. Two participants stated that they were diagnosed with RLS, and these individuals were diagnosed by an orthopedist. Thirteen participants stated that they had a diagnosis in their family, and seven of these participants stated that they were the

Table 1. Essential diagnostic criteria for restless legs syndrome

		Yes	No
Q1	An urge to move the legs, usually accompanied or caused by uncomfortable and unpleasant sensations in the legs		
Q2	The urge to move or unpleasant sensations begin or worsen during periods of rest or inactivity such as lying or sitting		
Q3	The urge to move or unpleasant sensations are partially or totally relieved by movement, such as walking or stretching, at least as long as the activity continues		
Q4	The urge to move or unpleasant sensations are worse in the evening or night than during the day or only occur in the evening or night		

Q: Question.

Table 2. Sociodemographic characteristics of the participants

Characteristics	n	%
Sex		
Female	141	58.8
Male	99	41.2
Education status		
Primary school	28	11.7
Middle school	18	7.5
High school	98	40.8
College or University	96	40.0
Presence of chronic disease		
Yes	33	13.8
No	207	86.2

mother of the affected individual, two were the sibling, one was the father, and one was the grandmother. The questionnaire used to determine awareness of RLS is presented in Table 3, and other answers about awareness of RLS are demonstrated in Table 4.

Of the participants, 28.1% answered all questions with "Yes". The sex distribution of patients who were diagnosed with RLS is given in Table 5. In the study group, 29.1% of the females were diagnosed with RLS, and this value was significantly higher than the rate of males (p=0.021).

Table 3. Questionnaire to determine awareness of restless legs syndrome

		Yes	No
Q5	Have you heard of restless legs syndrome?		
Q6	Do you know what restless legs syndrome?		
Q7	Do you know which department (medical success) is interested?		
Q8	Do you know what are the symptoms?		
Q9	Have you been diagnosed with restless legs syndrome?		
Q10	If the diagnosis was made, which department doctor made your diagnosis?.......		
Q11	Do you use any treatment about this illness?		
Q12	Do you have any chronic diseases?		
Q13	Is there a diagnosis of restless legs syndrome in your family?		

Q: Question.

Table 4. Information of participants about restless legs syndrome

	n	%
Have you heard of restless legs syndrome?		
Yes	89	37.1
No	151	62.9
Do you know what restless legs syndrome is?		
Yes	74	30.8
No	166	69.2
Do you know what are the symptoms?		
Yes	62	25.8
No	178	74.2
Do you know which department (medical success) is interested?		
Neurology	34	14.2
Orthopedics	25	10.4
Physical Medicine and Rehabilitation	6	2.5
Psychiatry	4	1.7
Cardiology	3	1.3
Internal medicine	3	1.3

Table 5. Distribution of people diagnosed with RLS screening test by sex

Sex	RLS (+)		RLS (-)		*p*
	n	%	n	%	
Female	41	29.1	100	70.9	
Male	16	16.2	83	83.8	0.021
Total	57	23.8	183	76.2	

RLS: Restless legs syndrome.

DISCUSSION

Restless legs syndrome is a sensorimotor disorder characterized by dysesthesia or discomfort in the extremities, increased symptoms after physical inactivity, relaxation after motor activity, and symptoms worsening at night.[8] In prevalence studies using different methodologies, the rates of RLS have been reported to vary between 2.5 and 29%.[4] In addition, prevalence rates differ according to ethnicity. An important issue with this disease is the low awareness of individuals, which lowers the quality of life as the rates for seeking medical advice and treatment are reduced.

In a study conducted in the province of Ordu, Türkiye, the students at the university were interviewed based on the IRLSSG diagnostic criteria, and 18.4% of the participants met the diagnostic criteria of RLS. However, none of the students who met the criteria had sought medical advice, and none of them had been diagnosed with RLS. In addition, only 23.3% of the students diagnosed with RLS gave a positive answer when they were asked if they would seek medical advice for their complaints, even though they are highly educated. Of the students who considered seeking medical advice, the majority stated that they would admit to the department of orthopedics, and neurology was ranked number two.[9]

In the prevalence and awareness study of Hadjigeorgiou et al.[10] conducted in Greece, only 7.7% of the participants answered "Yes" when they were asked if they had heard of RLS. In the prevalence study of Helvaci Yılmaz et al.,[4] the participants who met the criteria of IRLSSG were reevaluated by two neurologists,

and 39 patients were diagnosed with RLS. Of these, only 14 had suspected the disease, but they had not presented to a hospital, while seven had presented to a hospital, but they were not correctly diagnosed as they applied to the wrong department, and the rest of the patients thought that this situation was not a disease that required medical advice or there was no treatment for it.

Unlike previous studies, we conducted our study to determine the level of awareness of the society. Previous studies have mostly aimed to determine the prevalence rates. As we predicted, the awareness of the society on this disorder is quite low. Even though 80% of the participants graduated a university, only 37.1% of respondents answered "Yes" to when they were asked if they heard of RLS. This rate further decreased when the participants were asked if they knew what this disorder was. The final rate was 25.8%, which was in response to the question, "Do you know the symptoms?" Another situation that restricts patients' treatment opportunities is that the patients do not know which department to admit to since the level of knowledge about the disease is insufficient. Only 14.2% of respondents answered "Yes" when they were asked if they knew which department treats this condition.

Despite the low rates of awareness, the rate of the patients who answered "Yes" to all four questions of IRLSSG diagnostic criteria was 28.1%. In our study, the prevalence rate was found to be higher than in other studies according to the same criteria. The reason for this can be the fact that patients who participated in the questionnaire were not reevaluated in terms of RLS by any neurologic examination by another neurologist since we particularly conducted a study on awareness. In other prevalence studies,

after questioning the diagnostic criteria, a neurological examination has been performed and patients have been diagnosed with RLS.[4,6] In accordance with the literature, the number of females meeting the IRLSSG diagnostic criteria was statistically higher than that of males.[11]

In conclusion, even though there are many studies focusing on determining the prevalence of RLS, the number of studies on awareness is low. In our study, we preferred the department of family medicine as we thought that the distribution of individuals would be close to that of the general population. Despite the fact that the number of patients meeting the IRLSSG diagnostic criteria was high, only a few patients had information about the disease. It is of major importance for public health to have more information on this disorder that affects the quality of life and sleep.

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