

Attitudes toward and management of fibromyalgia: A national survey of Saudi Arab's medical practitioners

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Abstract

Widespread pain is characteristic of fibromyalgia. Patients consult different specialities, and hence, diagnosis and treatment is often delayed. To evaluate and assess the attitudes and management of fibromyalgia among medical practitioners in Saudi Arabia a cross-sectional study was conducted through an online questionnaire in November 2021. Screening demographics included age, sex, place of work, speciality, year of graduation, and practical experience. Questions about fibromyalgia (general knowledge and management, ACR criteria 2010, essential symptoms, diagnosis, and treatment) were also part of the questionnaire. There were 103 respondents, out of which 88(85.4%) have heard about fibromyalgia and 21(20.4%) had managed cases of fibromyalgia, while 32(31.1%) knew about the 2010 ACR diagnostic criteria. Commonest reported characteristics of fibromyalgia were excessive fatigue 74(71.8%), widespread pain 71(68.9%), weakness 54(52.4%), and sleep disturbance 38(36.9%). About 76(73.8% reported it is a clinical diagnosis and 75(72.6%) reported having the knowledge about the treatment of fibromyalgia.

It was concluded that 88(85.4%) practitioners know fibromyalgia. However, knowledge about the diagnosis and treatment of fibromyalgia was not satisfactory.

Keywords: Fibromyalgia, Tender points, Medical practitioners.

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Introduction

Fibromyalgia is a chronic disorder associated with generalised musculoskeletal pain, fatigue, sleep disturbances, and memory and mood issues.¹ It is unclear as to what causes fibromyalgia, but abnormal central pain processing is considered the main pathophysiological

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process.¹ It is usually diagnosed clinically by the patient's history, physical examination, X-rays, and blood work.² There is no clear cause known for fibromyalgia, but it can be managed and treated effectively. Its prevalence in the general population is about 0.2 - 6.6%.³

A previous study showed that 69% of general practitioners had moderate to high knowledge regarding fibromyalgia syndrome. Furthermore, half of them had insufficient familiarity with fibromyalgia syndrome.⁴ Another study conducted among orthopaedic surgeons revealed that 91.3% of the participants claimed familiarity with FMS. However, 62% related widespread musculoskeletal pain to FMS.⁵ A previous study reports that 70% of the respondents thought that FM exists as a distinct clinical entity, while 30% believed it was a psychological illness.⁶ Recent studies suggest poor knowledge of FMS among Saudi medical practitioners and physiotherapy.^{7,8}

Fibromyalgia is a relatively common disease, and poor knowledge about it among medical practitioners leads to misdiagnosis. Some research material has been published in Saudi Arabia on the same topic. In this study, we sought to evaluate and assess the attitudes toward the recognition and management of fibromyalgia among medical practitioners in Saudi Arabia. This study can promote and contribute to increase education, awareness, and training for medical practitioners regarding fibromyalgia.

Methods and Results

This is a cross-sectional study performed from December 15, 2021, to November 15, 2022, in Saudi Arabia. It was approved by the research ethics committee unit of Taif University No. (HAO-02-T-105). An online questionnaire survey of medical physicians in Saudi Arabia was conducted.

All medical practitioners who agreed to participate in this study and who work in primary health care and equal numbers of rheumatologists, neurologists, psychiatrists, and pain specialists were included in the study. Those who refused to participate or were not medical practitioners were excluded. The sample size was the maximum number of respondents possible.

The survey was organised in three sections: the first section consisted of an overview (the study topic, participants, purpose, and consent). The second section consisted of demographic data of the participants (age, sex, place of work, speciality, graduation year, and practical experience). The third section included questions about fibromyalgia, such as have they heard about the disease, source of knowledge, any previous case management of fibromyalgia, knowledge of diagnostic criteria (ACR criteria), knowledge of essential symptoms of fibromyalgia, confirmed diagnosis and treatment of fibromyalgia. Statistical Package for Social Sciences (SPSS) for MAC 28 was used for statistical analysis. The data were presented by numbers, percentages, and mean \pm standard deviations. T-test was used for the analysis of numerical data and the chi-square test for nominal data. A $p < 0.05$ was considered significant.

Based on the survey, 103 responses were received. The sociodemographic characteristics showed that 81 (78.6%) belonged to 23-39-year age group, 78 (75.7%) were males, 52 (50.5%) worked in the Ministry of Health, 44 (42.7%) were residents, 84 (81.6%) graduated after 2000, and 58 (56.3%) had less than five years of experience [Table 1].

Table-1: Sociodemographic data of medical practitioners.

	n (%)
Age (years)	
23 – 39	81 (78.6)
40 – 60	21 (20.4)
> 60	1 (1.0)
Gender	
Female	25 (24.3)
Male	78 (75.7)
Place of work	
Ministry of health	52 (50.5)
KFSH	3 (2.9)
Military hospital	6 (5.8)
National Guard	5 (4.9)
Private	5 (4.9)
Security of forces	2 (1.9)
University	25 (24.3)
Other	5 (4.9)
Rank	
Consultant	17 (16.5)
Specialist	22 (21.4)
Resident	44 (42.7)
Intern	20 (19.4)
Year of graduation	
1980-1989	6 (5.8)
1990-1999	13 (12.6)
After 2000	84 (81.6)
Experience	
< 5 years	58 (56.3)
5 - 10 years	18 (17.5)
10 - 15 years	11 (10.7)
> 15 years	16 (15.5)

Table-2: Management of cases of fibromyalgia.

	n (%)
Managed any case of fibromyalgia (n=103)	
No	82 (79.6)
Yes	21 (20.4)
Patients diagnosed as fibromyalgia last year (n=103)	
0	29 (28.2)
1-20	67 (65.0)
21-50	5 (4.9)
> 50	2 (1.9)
Specialty where patient suspecting fibromyalgia is referred (n=103)	
Rheumatology	45 (52.3)
Pain management	19 (18.4)
Family medicine	14 (13.6)
Neurology	10 (9.7)
Orthopaedic	7 (6.8)
Rehabilitation	3 (2.9)
Psychiatry	1 (1.0)

The assessment of the practices related to the management of fibromyalgia showed that about 21 (20.4%) had managed cases of fibromyalgia in their practice. About 67 (65%) participants reported that they diagnosed 1-20 cases of fibromyalgia, whereas only 2 (1.9%) diagnosed more than 50 cases in the last year. The most commonly referred speciality for patients suspected of fibromyalgia was rheumatology 45(52.3%) [Table 2].

Forty-five (43.7%) participants reported that they had prior knowledge of the criteria to diagnose fibromyalgia, and 32(31.1%) knew about the 2010 ACR diagnostic criteria.⁹ Among the participants who knew about the 2010 ACR diagnostic criteria, the most commonly reported criteria were 'widespread pain index and symptoms severity scale'. The most commonly reported characteristics of fibromyalgia by the participants were excessive fatigue 74(71.8%), followed by widespread pain 71(68.9%), weakness 54(52.4%), and sleep disturbance 38(36.9%). Regarding how a diagnosis of fibromyalgia is confirmed, 76(73.8%) participants reported it as 'clinically,' and 22(21.4%) mentioned it as with 'Laboratory and Radiological' investigations. About 75(72.8%) reported that they had knowledge about the treatment for fibromyalgia [Table 3].

The analysis showed that 8 (7.8%) had excellent, 34 (33%) had good, and 61 (59.2%) had fair knowledge. On assessment of the association between this knowledge level and various sociodemographic characteristics, only the speciality and experience of the participants showed a statistically significant association. Consultants and specialists demonstrated significantly more 'excellent' knowledge than others ($p=0.002$). In addition, participants who had more than five years of experience had significantly more 'excellent' knowledge than others ($p=0.027$) [Table 4].

Table-3: Knowledge regarding diagnostic criteria for fibromyalgia.

	n (%)
Know the criteria for diagnosing fibromyalgia (n=103)	
No	58 (56.3)
Yes	45 (43.7)
Know about the 2010 ACR diagnostic criteria (n=103)	
No	71 (68.9)
Yes	32 (31.1)
2010 ACR diagnostic criteria (n=32)	
Symptoms severity scale	3 (9.4)
Tender points	16 (50.0)
Widespread pain index	9 (28.1)
Widespread pain index and symptoms severity scale	22 (68.8)
Characteristics of fibromyalgia (n=103)	
Excessive fatigue	74 (71.8)
Abnormal radiology	7 (6.8)
Widespread pain	71 (68.9)
Weakness	54 (52.4)
Sleep disturbance	38 (36.9)
Anxiety	29 (28.2)
Depression	36 (35.0)
Stiffness	33 (32.0)
Headache	26 (25.2)
Elevated ESR & CRP	28 (27.2)
Arthritis	21 (20.4)
Concentration and cognitive disorders	21 (20.4)
Gastrointestinal symptoms	21 (20.4)
Weight loss	9 (8.7)
How diagnosis of fibromyalgia is confirmed (n=103)	
Clinical	76 (73.8)
Laboratory and Radiological	22 (21.4)
Laboratory	4 (3.9)
adiological	1 (1.0)
Knowledge about treatment for fibromyalgia (n=103)	
No	28 (27.2)
Yes	75 (72.8)

Discussion

Evidence-based studies have proven to affect the assessment, treatment and management of fibromyalgia; it has also been proven by studies conducted by rheumatologists, family physicians, and medical students.^{3,7} These studies have shown considerable differences in views and knowledge of diagnosing and treating fibromyalgia, not only between various specialities but also within the same speciality. In general, these researchers revealed that many individuals had either a low level or no knowledge at all. Some doctors denied the existence of fibromyalgia as a unique medical disorder, while others claimed it was purely psychological in origin. The findings of the current study showed that most of the participants (85.4%) were aware of the disorder. However, the knowledge related to the diagnosis and treatment of fibromyalgia was not satisfactory, whereas only 20.4% of the doctors had managed cases of fibromyalgia before. Our findings are consistent with another study by Buskila et al,

Table-4: Relationship between knowledge regarding fibromyalgia and participants' characteristics.

	Knowledge			p-value
	Fair n (%)	Good n (%)	Excellent n (%)	
Age (years)				
23-39	53 (65.4)	23 (28.4)	5 (6.2)	0.095
40-60	7 (33.3)	11 (52.4)	3 (14.3)	
>60	1 (100)	-	-	
Sex				
Female	17 (68)	6 (24)	2 (8)	0.537
Male	44	28 (35.9)	6 (7.7)	
Place of work				
University	12 (48)	9 (36)	4 (16)	0.080
Ministry of health	33 (63.5)	18 (34.6)	1 (1.9)	
Military hospita	6	-	-	
Security of forces	1	-	1 (50)	
National guard	2 (40)	2 (40)	1 (20)	
KFSH	3 (100)	-	-	
private	1 (20)	3 (60)	1 (20)	
other	3 (60)	2 (40)	-	
Speciality				
Intern	13 (65)	7 (35)	-	0.002*
Resident	34 (77.3)	8 (18.2)	2 (4.5)	
Specialist	10 (45.5)	10 (45.5)	2 (9.1)	
Consultant	4 (23.5)	9 (52.9)	4 (23.5)	
Graduation year				
1980-1989	4 (66.7)	1 (16.7)	1 (16.7)	0.557
1990-1999	6 (46.2)	5 (38.5)	2 (15.4)	
After 2000	51 (60.7)	28 (33.3)	5 (6)	
Experience in medical practice (years)				
<5 years	43 (74.1)	13 (22.4)	2 (3.4)	0.027*
5-10 years	6 (33.3)	9 (50)	3 (16.7)	
10-15 years	6 (54.5)	4 (36.4)	1 (9.1)	
>15 years	6 (37.5)	8 (50)	2 (12.5)	
Managed any case of fibromyalgia				
No	52 (63.4)	26 (31.7)	4 (4.9)	0.057
Yes	9 (42.9)	8 (38.1)	4 (19)	

which revealed that 96% of the physicians were familiar with fibromyalgia, and only half of them had managed at least one case of the same disorder.⁵ Nearly half of the participants did not know the three most often used diagnostic criteria for fibromyalgia. The majority were unfamiliar with the diagnostic criteria and guidelines for its management. Doctors with more clinical experience and those who had previously managed fibromyalgia cases had significantly better knowledge than others. The findings showed more than half of the respondents had less than five years of clinical experience, and approximately 62.1% belonged to non-specialist groups (interns and residents). This explains why many participants did not answer questions about the diagnosis and management of fibromyalgia.⁴ Nearly 2% respondents in this survey indicated that they diagnosed more than 50 cases of fibromyalgia in a single year at their healthcare facility,

despite the fact that the prevalence of fibromyalgia has been reported to be between 2–9% of adult population. A recent study done in Saudi Arabia by Kaki et al⁸ reported similar findings where most of the medical practitioners were unaware of the 2010 diagnostic criteria for fibromyalgia. This poor knowledge regarding the diagnostic criteria and symptoms of fibromyalgia will lead to minimal referral of such cases to specialists and consultants (rheumatologists). About 52.3% of the participants referred the cases of suspected fibromyalgia to a rheumatologist, and 18.4% of them referred such cases to pain management. Consultants and specialists were more familiar with fibromyalgia than other medical practitioners who were asked about the 2010 ACR criteria. They were more professional and experienced than the others in treating these disorders. While the ACR considers it a disease in rheumatology,¹⁰ it is not surprising that fibromyalgia patients are referred to several medical disciplines. The knowledge that fibromyalgia is a spectrum condition, in terms of pain distribution and severity, has led to the development of new diagnostic criteria.¹¹ The term 'fibromyalgianess' was coined to describe this spectrum, rather than the original categorisation criteria's suggestion that it was an all-or-none disorder.

Recognising that fibromyalgia is a spectrum disorder, the diagnostic criteria have evolved to include both the spatial distribution of pain and symptom involvement and severity. This spectrum has been described as 'fibromyalgianess' and not as a discrete all-or-none disorder, as suggested by the original classification criteria.¹⁰ Management strives to improve symptoms, function, and quality of life, as spontaneous recovery is rare in this condition.⁷ There are several therapeutic options available, and each one should be customised individually. Non-pharmacological, as well as pharmacological modalities, are utilised via a multidisciplinary approach. Education, exercise, and cognitive behavioural therapy are the greatest non-pharmacological treatments for fibromyalgia that give sustained functional improvement.¹² The present study showed a lack of knowledge among medical practitioners in Saudi Arabia. Notably, comparable outcomes have been reported in other studies.^{7,8,13} The insufficient medical school training and missed educational opportunities to learn more about fibromyalgia may have contributed to the lack of/decreased understanding amongst medical practitioners about this syndrome. It is important that medical students should receive all the essential knowledge about fibromyalgia, its diagnosis, and management based on current scientific evidence. Thus, it is essential to include detailed content about fibromyalgia in the current undergraduate medical curriculum in Saudi Arabia. The care of individuals with fibromyalgia

necessitates excellent communication between healthcare providers involved in their care.

Fibromyalgia is a relatively common disease and our result showed poor knowledge and awareness by Saudi medical practitioners. This study was limited by a small sample size which could give an inaccurate representation of these findings.

Conclusion

Despite the common practice of referring suspected cases of fibromyalgia to a rheumatologist, few of them have managed a case of fibromyalgia. To address this issue, it is extremely important to maximise education about fibromyalgia diagnostic criteria and management to avoid delayed diagnosis.

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Author Contribution:

AAM: Supervisor.

RAA: Study design, developed the questionnaire and informed consent, wrote the protocol and planned the study, data collection, entry, statistical design, analysis, revision.

TMA: designed the study, developed the questionnaire and the informed consent, wrote the protocol and planned the study, assisted in data collection.

AMA: Wrote the protocol and planned the study, assisted in data collection and data entry and shared in the statistical analysis.

LKK: Wrote the protocol and planned the study assisted in data collection and shared in the statistical design, publishing the article.

SWA: wrote the protocol and planned the study assisted in data collection, data analysis and shared in the statistical design.

RAA: Wrote the protocol and planned the study assisted in data collection, data analysis and shared in the statistical design