

Original Article

PREVALENCE OF FIBROMYALGIA IN MUSCULOSKELETAL DISORDER

Hasneeza Hassan¹, Muhammad.Naveed Babur¹, Abeera Hussain¹

Abstract

Background: Fibromyalgia has a strong inter relationship in musculoskeletal disorder involving majority of females and middle aged group population. The effected population has disturbed sleep pattern and decrease quality of life.

Objectives: to reveal the prevalence of fibromyalgia in musculoskeletal disorders and how it effects the quality of life.

Methodology: A descriptive cross sectional survey was carried on 314 diagnosed patients of musculoskeletal disorders of both gender varies from 20-70 years of age from Al-Nafess medical college and hospital Islamabad and other hospital setups from Islamabad, Rawalpindi, Attock and Gujranwala. Those Patients that mimics similar sign and symptoms with other neurological problems, systemic problems and pregnant women were not taken under the survey. Demographic data (i.e. age, gender, occupation) of all participants were recorded on new clinical diagnostic criteria for fibromyalgia. DASS Questionnaire was used for the analysis of negative emotional states of depression, anxiety and stress. RAPA was used for the analysis of Physical activity. The data was entered into the statistical analysis software (SPSS version 21).

Results: The result showed that among 314 participants with MSDs, 12.9%(38) participants were having fibromyalgia out of which 32 participants with diagnosed Fibromyalgia lies in the middle age group from 21-60 years. Among 128 males, 11(22.4%) were with fibromyalgia and 38(77.6%) out of 186 females were effected with this condition.

Conclusion: The study showed that among 314 recruited participants 38 were affected with FM. The prevalence showed a higher correlation of Fibromyalgia in MSDs and women are seen to be more significantly affected by this condition. Middle aged group are more prone to it.

Keywords: anxiety, depression, Fibromyalgia, musculoskeletal disorders, sedentary life style

Introduction

Fibromyalgia a condition of life that affects the muscles and soft tissues characterized by widespread musculoskeletal pain accompanied with fatigue, deep muscular ache to throbbing, burning to stabbing which is worse in the morning, sleep problems and painful tender or trigger points, memory and mood issues. The people may be hyperalgesic or allodynia which about the symptoms of FM. In fibromyalgia people experience digestive problems, anxiety and depression, felt scared without any good reason, have an awareness of the action of heart and experience breathing difficulties in the absence of physical exertion. These people are of reclusive nature, feel down-hearted and blue. There are certain characteristics that expose the likelihood of a person to develop fibromyalgia Such as: Age, gender, Level of education, socioeconomic status, stress, emotional, physical violence and abuse. There is much that has not yet been known about fibromyalgia. However the people with this condition suffer pain and sensitivity to touch. The pain may subside but can spread to different parts of the body.⁽¹⁻⁵⁾

There are number of studies done that has showed people having a certain musculoskeletal disorder also have fibromyalgia according to FIQ, and has been suggested that females as compare to men are more prone to it. The prevalence of fibromyalgia increases with age and is a common musculoskeletal condition

1. Isra Institute of Rehabilitation Sciences Isra University Islamabad Campus

Correspondence

Dr Hasneeza Hassan, Lecturer Isra Institute of rehabilitation Sciences, Isra University Islamabad Campus.

E-mail: hasneeza127@hotmail.com

where women and men of middle age group with low socio economic status are more prone to this.⁽⁶⁻¹²⁾

Worldwide prevalence of fibromyalgia was 2.7%, 3.1 % in the Americas, 2.5 % in Europe, and 1.7 % in Asia. A study showed prevalence of fibromyalgia in Pakistan categorized under rural 18 (26), and urban area 23 (32) with affluence of 1.⁽¹³⁾

Unfortunately, In Pakistan it is very challenging to find out the prevalence of fibromyalgia in MSD because of the misdiagnosed cases due to similarity of S/S with other MSD conditions and high outpatient's flow there is lack of time to take detail history and examination, it is difficult to find an accurate prevalence of fibromyalgia in Pakistan. Thus this study was conducted to explore the prevalence of fibromyalgia in musculoskeletal disorder.

Methodology

A descriptive cross sectional survey was carried on 314 diagnosed patients of musculoskeletal disorders of both gender varies from 10-70 years of age from Al-Nafess medical college and hospital Islamabad and other hospital setups from Islamabad, Rawalpindi, Attock and Gujranwala. Demographic

data (i.e. age, gender, occupation) of all participants were recorded on new clinical diagnostic criteria for fibromyalgia. The first part of the questionnaire is about the pain in 18 points of the body. The second part is of symptom severity score (SS score)-part2a that indicate the level of symptoms including fatigue, waking afresh and cognitive symptoms ranging from 0-3. And SS score – part 2b that other symptoms person may have experienced over the past week. The data was analyzed through SPSS version 20. Categorical variables (i.e. gender, occupation) are presented as frequency/percentage.

Table 1: Demographic Variables And Their Association With Fibromyalgia

Categories	N(%)	Fibromyalgia		X^2	p-value	
		Yes	No			
Age	10-20	16(5.1%)	1(2%)	15(5.7%)	11.65	0.02
	21-40	146(46.5%)	15(30.6%)	131(49.4%)		
	41-60	107(34.1%)	24(49.0%)	83(31.3%)		
	61-80	41(13.1%)	7(14.3%)	34(12.8%)		
	81-100	4(1.3%)	2(4.1%)	2(0.8%)		
Gender	Male	128(40.8%)	11(22.4%)	117(44.2%)	8.00	0.00
	Female	186(59.2%)	38(77.6%)	148(55.8%)		
Occupation	Employed	102(32.5%)	13(26.5%)	89(33.6%)	7.69	0.17
	Unemployed	3(1%)	1(2%)	2(0.8%)		
	Retired	13(4.1%)	3(6.1%)	10(3.8%)		
	Housewife	104(33.1%)	23(46.9%)	81(30.6%)		
	Student	56(17.8%)	5(10.2%)	51(19.2%)		
BMI	Self Employed	36(11.5%)	4(8.2%)	32(12.1%)	22.85	0.00
	BMI < 18.5 Underweight	27(8.6%)	2(4.1%)	25(9.4%)		
	BMI Is 18.5 To <25, Normal.	159(50.6%)	14(28.6%)	145(54.7%)		
	BMI Is 25.0 To <30, Overweight.	77(24.5%)	15(30.6%)	62(23.4%)		
BMI Is 30.0 Or Higher, Obese	51(16.2%)	18(36.7%)	33(12.5%)			

Discussion

This study was conducted to know about the prevalence of fibromyalgia in musculoskeletal disorder. In this study we have taken 314 patients with diagnosed MSDs. The first variable was gender; the study consists of 186 females and 128 males, with a percentage of 59.24 and 40.76 respectively. In contrast to a previous study conducted by Winfried Et.al in the German Fibromyalgia Association Bad Sackach Germany, The result of their study showed a total number of 1023 patients were examined out of these 885 were females and 138 were males. The conclusion of the study was “female participants reported a longer duration of chronic widespread pain and a lot higher tender point⁽¹⁴⁾.”

In another study conducted in Sweden by the Ewa Wigns Et.al in the department of occupational

Results

The results showed that mean age of study participants was 41.84±16.47 years, height was 166.04±12.74 cm, weight was 68.03±12.50 kg, BMI was 25.12±6.63 and mean sleep duration was 7.79±2.02 hr. The prevalence of fibromyalgia was n=49(15.6%) out of n=314 study participant. The results also showed strong association between age (p=0.02), gender (p=0.00) and BMI (p=0.00) with fibromyalgia. (Table 1)

medicine Goteborg University Sweden. The conclusion of the study shows “women had a higher prevalence of MSD symptoms in all body regions.⁽¹⁵⁾ In another study commenced in Pakistan reported that “females are affected more frequently for all disorders, but especially fibromyalgia.” It also showed prevalence of fibromyalgia in Pakistan categorized under rural 18 (26), and urban area 23 (32) with affluence of 1.⁽¹³⁾

The mean rate was 3.1 % in the Americas, 2.5 % in Europe, and 1.7 % in Asia. In women, the mean prevalence was 4.2 % and in men 1.4 %, with a female-to-male ratio of 3:1. Most of these studies were done in some specific areas/towns/cities of the country.⁽¹⁴⁾

Another variable discussed was the association of FM with body weight. It was also mentioned in various

studies with higher FM prevalence in obese women. The global mean prevalence of FM was 2.7 %, ranging from 0.4 % in Greece to 9.3 % in Tunisia.⁽¹⁴⁾ Second important variable is Age. Age among the participants has been categorized as participant between age group 0-20 were 4.5%, however age group 21-40 has 47.1% participants, 34.1% participants lies between 41-60 , 13.1% participants are in age group 61-80, 13.1 % lies between age group 61-80, age group of 81-100 contains 1.3% participants. The result of our study shows that people in middle age are more affected with fibromyalgia, that resembles with the statement that “woman are significantly more likely to be diagnosed with FM disorder and most are diagnosed during middle age” this statement is given by Anxiety and Depression Association of America.⁽¹⁷⁾

Occupation was categorized into employed, unemployed, retired, housewife, student, self-employed. A total of 32.5% participants were employed, 1.0% participants were unemployed, 4.1% participants were retired, there was 33.1% participants categorized as housewife, 17.8% students, and 11.5% participants were self-employed. Thorough out our research we questioned participants about their sleep hours in a day, our study showed that majority of the participants sleep 5 to 9 hours a day.

Conclusion

According to our result most of the participants diagnosed with FM, having MSK conditions were females, depressed and middle aged. Our result shows that a considerable amount of patients with FM is present so health care provider should focus to minimize risk factors for FM and work over the effective treatments protocol.

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Authors' contributions:

Hasneeza Hassan: Conception and design of the work, the acquisition, analysis, interpretation of data, drafting the work and revising it for final approval. Responsible for data integrity.

Muhammad Naveed Babur: Revising article critically for important intellectual content for final approval. Responsible for data.

Abeera Husain: Revising article critically for important intellectual content for final approval. Responsible for data integrity.