

**AWARENESS AND ATTITUDE OF PHARMACY UNDERGRADUATES AND GENERAL PUBLIC TOWARDS FIBROMYALGIA, A MISJUDGED SYNDROME**

Sadia Zafar\*, Syeda Rabab Hassan, Sarah Ahmed, Rutaba Masroor, Zainab Abdul Qadir

Faculty of Pharmacy, Jinnah University for Women, Karachi, Pakistan

**\*Corresponding author e-mail:** [sadiazafarnew@yahoo.com](mailto:sadiazafarnew@yahoo.com)**ABSTRACT**

The objective of this study was to compare the level of awareness and attitude of Pharmacy Undergraduates and General public towards fibromyalgia and to observe the impact of Fibromyalgia on people's daily routine. A retrospective study conducted to generate awareness, resolve misconceptions and motivate physicians for necessary measures. A cross sectional survey was conducted by using self administered questionnaire in July, 2013. The data of 200 sample population was then thoroughly analyzed and evaluated. The gender wise high prevalence was found in females and majority belonged to age group 18-25 yrs. Although only 8.5% of total respondents ever attended any informational session about Fibromyalgia. However, 86% of Pharmacy undergraduates had knowledge about Fibromyalgia, It was observed 57% of respondents experienced muscular pain especially in shoulder region. Pain killers were commonly used self medication or prescribed by physicians whereas, antidepressants were the 2<sup>nd</sup> most opted class of drugs used to treat symptoms. Non seriousness of patients (76%) was observed in following physician's advice.

**Keywords:** Fibromyalgia, attitude, antidepressant drugs. retrospective, misconceptions, self medication**INTRODUCTION**

Fibromyalgia is a common musculoskeletal disorder characterized by multiple symptoms like muscle stiffness, insomnia, chronic widespread pain. <sup>[1],[2]</sup> seen predominately in the shoulder region. The etiology is unknown yet However, stressful life style, poor economic conditions, hereditary characteristics, Vit D deficiency are found to be the cause of FM. <sup>[9]</sup>

Mycoplasmal infections are also detected in the blood samples of FM patients. <sup>[3],[5],[7],[8]</sup> It is recognized as an important clinical problem with functional disability, emotional distress. Various strategies are adopted by patients to cope with the negative impact of FM on physical, social and mental status. <sup>[4]</sup>

The disease is more common in female as compared to male. The management of FM includes physiotherapy, exercises, medication and regular follow-up. <sup>[6]</sup> The patient describe the intensity of pain by using different terms indicating the degree of their suffering. <sup>[10]</sup> Thus for the past few years along with other serious illnesses Fibromyalgia has emerged as significant challenge for health care providers. <sup>[11]</sup>

**METHODOLOGY**

In the present study Cross sectional survey was conducted in month of June, 2013. A questionnaire was distributed among population of 200 sample size. The respondents included Pharmacy graduates and General public. The questionnaire was consists of 30 questions and divided into 6 sections (Table 1,2):

1. Demographic information,
2. Awareness (Q1-Q5),
3. Experience (Q6-Q11),
4. Knowledge (Q12-Q16),
5. Treatment/Attitude (Q17-Q27),
6. Impact (28-30).

To determine the quality of questionnaire it was first administered to 20 people of focus groups. The feedback was then evaluated and before finalizing the content it was further improvised to enhance the quality of intended purpose.

## RESULT

The study revealed that majority of Pharmacy graduates are fully aware of the seriousness of this disease. The prevalence of disease is very common in Pharmacy graduates as well as in General public. Our studies indicated the higher degree of awareness among Pharmacy graduates. Among various painful regions of the body shoulder is the most affected region (fig 1) in fibromyalgia patients. Whereas, the most common symptom of Fibromyalgia was found to be disturbances in sleep pattern (fig 2) and is followed by the widespread pain. Our results clearly show that due to multifactor pathophysiology it largely affects the studies, working efficiency and social relationship of Pharmacy graduates and general public. (fig 3).

## DISCUSSION

Our study has unraveled various aspects regarding the epidemiology of Fibromyalgia. Like observations in several previous studies it is obvious that female are more prone to Fibromyalgia.<sup>[3],[12]</sup> The responses to our questions about experiences depict that about 57% of the respondents feel one or multiple symptoms especially the muscular pain in the shoulder followed by neck stiffness (50%). It is obvious from the studies that Sleep disturbance is also very common among patients of FM.<sup>[9],[6]</sup>

Although different treatment strategies are present to treat FM<sup>[1]</sup> but our investigation revealed that along with the allopathic medicines people alternative treatment options including household remedies, physical therapies, use of hot packs have been proven to be useful.<sup>13</sup> It is also observed that the alteration in weather conditions is noteworthy and 73.5%

respondents experience changes in severity of Symptoms. Between 30-40% of population think that FM is associated with some mental illness or hereditary characters. Many useful diagnostic tests have been suggested by investigators for identification of FM.<sup>2,5</sup> but only 8.5% of our respondents undergone such tests, therefore due to improper and late diagnosis the patient suffers mentally, physically and socially.<sup>[13]</sup>

The severity of pain also has significant impact on individuals working ability<sup>[4]</sup>, most of our respondents are found to be enduring the symptoms of FM from 0-5 yrs.<sup>[17]</sup> Pain killers, antidepressants along with supplements are the widely opted drug of choice by physicians to treat Fibromyalgia. Nonadherence to treatment protocol by patients are observed, in our studies about 24% of total population ever followed physicians advise properly.

Adherence to the physician advise and follow-up is necessary treatment.<sup>[15]</sup> FM is a chronic pain and requires multidisciplinary management which increases the economic cost, due to lack of diagnosis it exerts indirect burden on patient.<sup>[16],[18]</sup>

General public as well as Pharmacy undergraduates have many misconceptions about cause of Fibromyalgia. The findings showed that Pharmacy undergraduates have better understanding and knowledge about Fibromyalgia. However, efforts on part of health professionals and researchers are required to bring awareness and remove misconceptions prevailing among general public.

## CONCLUSION

An effort is required to bring awareness and resolve the misconceptions about Fibromyalgia which is prevailing among general public. Pharmacist can play a key role by educating, conveying their knowledge and by communicating with general public. Physicians should opt for necessary tests to explore the cause of FM prior to prescribing. Adherence to treatment strategies and seriousness on part of patient is also required for the eradication of this disease. Since FM disease directly or indirectly has various negative impacts on individual's life therefore health professionals and researchers should strive to explore new diagnostic techniques, treatment options and effective interventions.

**TABLE:1 Questions**

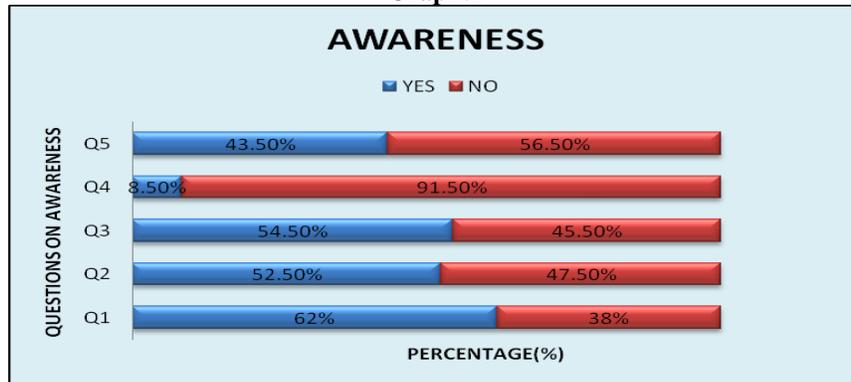
- 
- 1- Do you know the term FIBROMYALGIA ?
  - 2- Do you have any idea about FIBROMYALGIA?
  - 3- Have you ever heard or read about FM?
  - 4- Ever attended any lecture or seminar on FM?
  - 5- Any of your family member suffering from FM?
  - 6- Do you feel any kind of muscular pain?
  - 7- Feel pain on both or single side/s of body?
  - 8- Experience any physical changes in your body ?
  - 9- What is the painful area of your body ?
  - 10- Rate the severity of your pain?from 0 to 10
  - 11- Do you have any of the following symptoms?
  - 12- Do you think fibromyalgia is due to age factor?
  - 13- Do you think fibromyalgia is hereditary disease?
  - 14- Do you think this disease is mental illness?
  - 15- Does weather conditions have impact on symptoms?
  - 16- Do you consider fibromyalgia a major disease?
  - 17- Do you use hot/cold packs for muscular pain?
  - 18- Did your doctor prescribe you diagnostic test of FM?
  - 19- Experience any side effects from medicines?  
If yes, what are those:
  - 20- Do you follow treatment protocol regularly?
  - 21- Postural changes effects the severity of symptom?
  - 22- Can you afford the expenses for the treatment of FM?  
-If yes , how much money do you spend per month?
  - 23- Did you take any kind of self medication for this disease?  
If yes, name the medicine/s you took as a self medication
  - 24- Have you consulted any doctor?  
If yes, so what kind of remedy do you take?
  - 25- When did you last visited your doctor ?
  - 26- Name the medicines which your doctor prescribed you
  - 27- For how long you are coping with this disease?
  - 28- In a day how many times pain bothers your daily routine?
  - 29- Activity interrupted due to your pain for last 4 weeks ?
  - 30 - Does this disease effects your driving ability?
- 

**TABLE :2 Demographic characteristics of the study population (n=200)**

	n	%
<b>GENDER:</b>		
<b>*Pharmacy Undergraduates</b>		
Female:	100	50
<b>*General Public</b>		
Male	50	25
Female	50	25
<b>AGE:</b>		
18-25	110	55
26-32	22	11
33-39	16	08
Above 39	52	26
<b>LEVEL OF EDUCATION:</b>		
Undergraduates	107	53.5
Graduates	73	36.5
Postgraduates	20	10

---

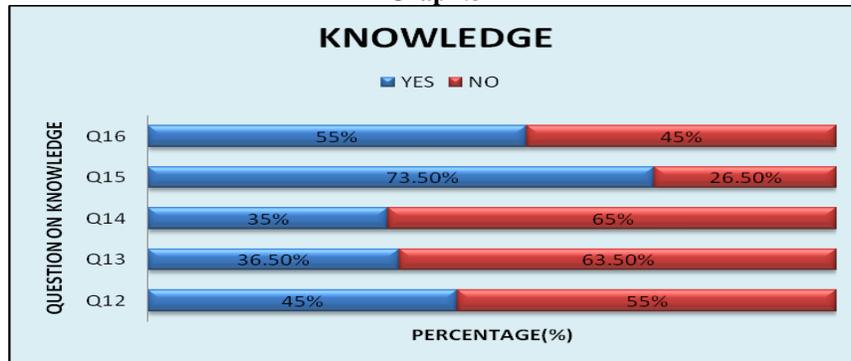
**Graph:1**



**Graph:2**



**Graph:3**



**Graph:4**

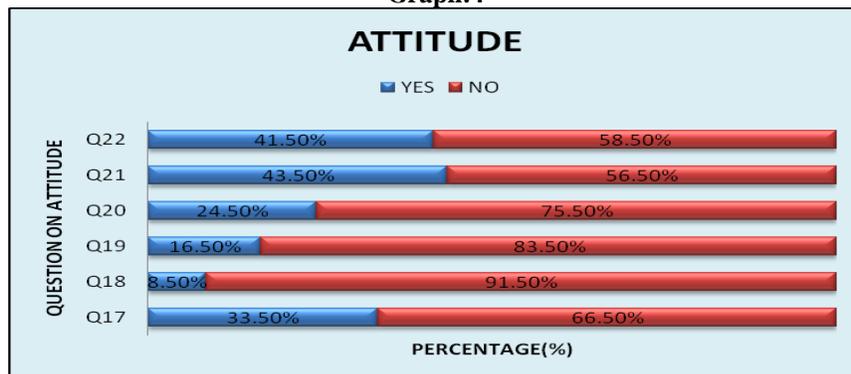


Fig:1

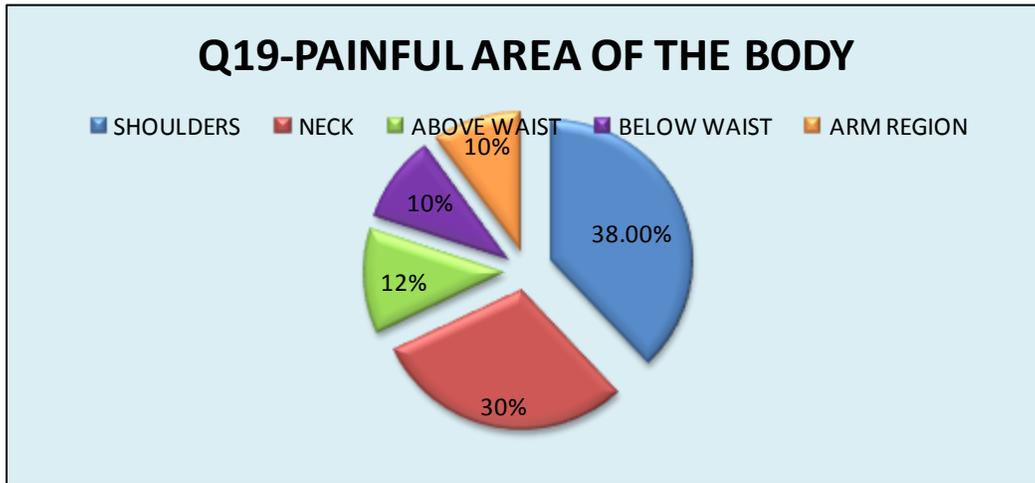


Fig:2

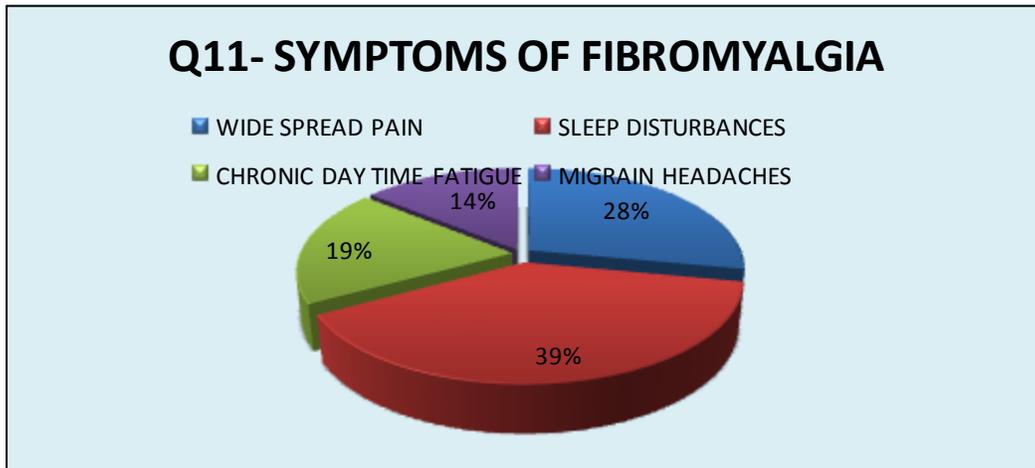
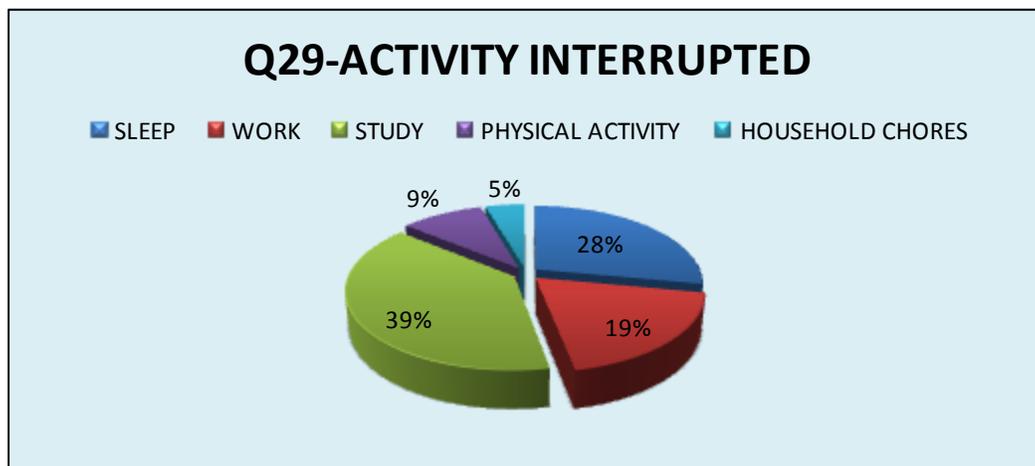


Fig:3



**REFERENCES**

1. Arnold LM, Keck PE Jr, Welge JA. *Psychosomatics*, 2000; 41(2):104-13.
2. Russell IJ. *Baillieres Best Pract Res Clin Rheumatol*, 1999; 13(3):445-54.
3. Anderberg UM, Marteinsdottir I, Theorell T, von Knorring L. *Eur Psychiatry*, 2000; 15(5): 295-301.
4. Bernard AL, Prince A, Edsall P. *Arthritis Care Res*, 2000; 13(1): 42-50.
5. Nasralla M, Haier J, Nicolson GL. *Eur J Clin Microbiol Infect Dis*, 1999; 18(12): 859-65.
6. Leslie M. *Clin Excell Nurse Pract*, 1999; 3(3): 165-71.
7. Iqbal R, Mughal MS, Arshad N, Arshad M. *Rheumatol Int*, 2011; 31(2): 149-52.
8. Bhatta SA, Shaikh NA, Irfan M, Kashif SM, Vaswani AS, Sumbhai A, Gunpat. *J Pak Med Assoc*, 2010; 60(11): 949-51.
9. Iqbal R, Mughal MS, Arshad N, Arshad M. *Rheumatol Int*, 2011; 31(2): 149-52.
10. Jensen MP, Johnson LE, Gertz KJ, Galer BS, Gammaitoni AR. *Pain*, 2013; 154(12):2722-8.
11. Bennett RM, Jones J, Turk DC, Russell IJ, Lynne M. *BMC Musculoskelet Disord*, 2007; 8: 27.
12. White KP, Speechley M, Harth M, Ostbye T. *J Rheumatol*, 1999; 26(7): 1570-76.
13. Thorson K. *Baillieres Best Pract Res Clin Rheumatol*, 1999; 13(3): 463-67.
14. Bernik M, Sampaio TP, Gandarela L. *Curr Pain Headache Rep*, 2013 ;17(9): 358.
15. Butow P, Sharpe LT. *Pain*, 2013 ;154 (Suppl) 1: S101-7.
16. Wells AF, Arnold LM, Curtis CE, Dunegan LJ, Lapp CW, McCarberg BH, Clair A. *Postgrad Med*, 2013 ; 125(4): 70-7.
17. Mannerkorpi K, Kroksmark T, Ekdahl C. *Physiother Res Int*, 1999; 4(2): 110-22.
18. Queiroz LP. *Curr Pain Headache Rep*, 2013; 17(8): 35.