

A STUDY OF COMPARISON OF ADLs RESTRICTION IN PATIENT OF FIBROMYALGIA AND MYOFASCIAL PAIN SYNDROME

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Abstract

Background Myofascial pain syndrome (MPS) and fibromyalgia (FM) are clinical entities involving the musculoskeletal system, causing significant pain and suffering.

Objective To assess the impact of fibromyalgia syndrome (FMS) and myofascial pain syndrome (MPS) on activities of daily living (ADLs) and identify the most affected functional domains.

Methods A cross-sectional observational study was conducted over six months with a sample size of 132 patients, selected through purposive non-probability sampling. Patients aged 18–65 years diagnosed with FMS (per ACR 2016 criteria) or MPS (based on clinical criteria and physical examination) were included, excluding those with other chronic pain conditions, major psychiatric disorders, recent surgery or trauma, and pregnancy. Data were collected using a health assessment questionnaire and analyzed with SPSS version 25, employing chi-square tests for statistical significance.

Results Among the participants, 29.5% (39 individuals) required assistance with gripping and opening things, 28.8% (38 individuals) needed help with errands and chores, 22.7% (30 individuals) required assistance with hygiene tasks, and 18.9% (25 individuals) needed help with reaching. The study highlights significant restrictions in performing activities of daily living (ADLs) among FM patients, with the most profound impact seen in tasks requiring mobility and fine motor skills, such as walking, gripping, and dressing.

Conclusion Since the *p*-value (0.374) is higher than 0.05, the null hypothesis is accepted. This indicates no statistically significant association between the observed factors and ADL restrictions.

INTRODUCTION

Fibromyalgia (FM) and Myofascial Pain Syndrome (MPS) are two prevalent chronic pain conditions that significantly impact patients' ability to perform activities of daily living (ADLs). Both disorders are

characterized by widespread pain and fatigue, yet they differ in etiology and clinical presentation. Fibromyalgia is a central sensitization syndrome involving altered pain processing mechanisms in the

central nervous system, leading to widespread pain, fatigue, and sleep disturbances (1). In contrast, MPS is primarily a localized condition caused by myofascial trigger points, resulting in referred pain and limited muscle flexibility (2).

Myofascial trigger points (TrPs) are one of the most overlooked and ignored causes of acute and chronic pain. At the same time, TrPs constitute one of the most common musculoskeletal pain conditions. There is overwhelming evidence that muscle pain is commonly a primary dysfunction and not necessarily secondary to other diagnoses. Muscles feature many types of nociceptors, which can be activated by a variety of mechanical and chemical means. As a primary problem, TrPs may occur in absence of other medical issues; however, TrPs can also be associated with underlying medical conditions (e.g., systemic diseases) or certain metabolic, parasitical, and nutritional disorders. As a comorbid condition, TrPs can be associated with other conditions such as osteoarthritis of the shoulder, hip, or knee as well as with injuries such as whiplash. Pain elicited by muscle TrPs constitutes a separate and independent cause of acute and especially chronic pain that may compound the symptoms of other conditions and persist long after the original initiating condition has been resolved. TrPs are also associated with visceral conditions and dysfunctions, including endometriosis, interstitial cystitis, irritable bowel syndrome, dysmenorrhea, and prostatitis. The presence of abdominal TrPs was 90% predictive of endometriosis (3).

The restriction of ADLs is a critical outcome in these conditions, as it directly affects patients' independence and quality of life. Understanding the comparative impact of FM and MPS on ADL restrictions is essential for developing tailored interventions. Current evidence suggests that patients with FM may experience more generalized functional limitations, while those with MPS may exhibit localized impairments depending on the affected muscles (4).

Various studies have shown that overweight and obesity are central features of FM, but the real impact of a high BMI on clinical severity in patients with FM is still controversial. Adult patients with an ACR 2010/2011 diagnosis of FM underwent a complete physical examination and laboratory tests

and were asked to complete a package of questionnaires covering their sociodemographic and treatment details, in addition to the following disease-specific questionnaires: the revised Fibromyalgia Impact Questionnaire (FIQR), the modified Fibromyalgia Assessment Status questionnaire (ModFAS) and the Polysymptomatic Distress Scale (PDS). A total of 2339 patients were recruited and divided into two weight categories, underweight/normal (U/N, $n = 1127$, 48.2%) and overweight/obese (O/O, $n = 1212$, 51.8%). The total and subscales of FIQR, ModFAS and PSD scores were significantly higher in the O/O patients, as were all the mean scores of the individual FIQR items ($P < 0.001$ for all) (5).

FM is a well-known type of wide-spread chronic musculoskeletal pain with an occurrence of 2 to 4% in the adult population. Patients with FM often complain of increased tenderness in muscles, stress, morning stiffness, imbalance, body mass index (BMI) and fatigue (6).

Prevalence of Functional Limitation was serious among the older people in China, especially for the women. Disabilities of BADL and IADL and FL were negatively associated with the survival time of the older people in China. Regarding the effect of FL on survival, BADL and IADL performed significantly mediating roles, and the moderating role of BADL existed only for the female. These suggested evidence to implement strategies to maintain health in the older people (7).

The activities of daily living (ADLs) is a term used to collectively describe fundamental skills that are required to independently care for oneself such as eating, bathing, and mobility. The term activities of daily living was first coined by Sidney Katz in 1950. ADL is used as an indicator of a person's functional status. The inability to perform ADLs results in the dependence of other individuals and/or mechanical devices. The inability to accomplish essential activities of daily living may lead to unsafe conditions and poor quality of life. Measurement of an individual's ADL is important as these are predictors of admission to nursing homes, need for alternative living arrangements, hospitalization and use of paid home care (8).

Despite these distinctions, there is a lack of comprehensive studies comparing the extent and

patterns of ADL restrictions between FM and MPS patients. This study aims to address this gap by evaluating and comparing the restriction of ADLs in patients with fibromyalgia and myofascial pain syndrome. By understanding these differences, clinicians can better target treatment approaches to improve functional outcomes and overall well-being in affected individuals.

HYPOTHESIS

Null Hypothesis

Restrictions in activities of daily living (ADLs) due to fibromyalgia pain syndrome are more significant than those caused by myofascial pain syndrome.

Alternative Hypothesis

Restrictions in activities of daily living (ADLs) due to myofascial pain syndrome are more significant than those caused by fibromyalgia pain syndrome.

MATERIAL AND METHODS

This study employs a Cross-Sectional observational design and was conducted at, with a duration of 6 months post approval of the Synopsis the Sample size was 132 and purposive non-probability sampling technique utilized. Patients diagnosed with FMS (based on ACR 2016 criteria) or MPS (based on clinical criteria and physical examination) between the ages of 18 and 65 are eligible for inclusion; those with serious psychiatric problems, recent surgery or trauma, pregnancy, or other chronic pain conditions are not the outcome measurement tool health assessment questionnaire was used. Statistical analysis conducted using SPSS version 25 was used.

3.2 Study design:

Cross-sectional research methodology was used (Amris, Wæhrens et al. 2011)

3.3 Study Setting:

Government hospitals of Lahore.

3.4 Duration of study:

After the synopsis was approved, the study took six months to finish.

3.5 Sample size:

The following formula was used to determine the sample size, using a 0.05 margin of error and a 5% level of significance.

$N = \text{Sample size} = 132$

3.6 Sampling technique:

We used a purposive nonprobability sampling strategy.

3.7 Sample Assortment Criteria:

3.7.1 Inclusion Criteria:

- Individuals with fibromyalgia who meet the 2016 criteria set forth by the American College of Rheumatology (ACR) (Wolfe et al., 2016).
- Individuals who meet clinical criteria and undergo physical examination are diagnosed with myofascial pain syndrome (Srbely et al., 2020).
- Adults from the age of 18 to 65 (Coelho et al., 2021).
- Individuals who are capable of independently carrying out essential everyday tasks (Perrot et al., 2019).

3.7.2 Exclusion Criteria:

- Patients suffering from systemic lupus erythematosus, chronic fatigue syndrome, or rheumatoid arthritis, among other chronic pain issues (Staud & Rodriguez, 2021).
- People with significant psychiatric disorders, such as schizophrenia, bipolar disorder, or major depressive disorder, that have been diagnosed (Palagini et al., 2020).
- Patients who, within the last three months, have had surgery or suffered a major trauma (Scholten-Peeters et al., 2021).
- Ladies who are expecting or nursing (Mouton et al., 2022).
- Patients who refuse to participate in examinations or follow-up visits (Santana et al., 2019).

3.7 Statistical analysis:

Data was collected and analyzed on SPSS version 25.0 then analyzed for statistically significant outcomes by using chi square test.

3.8 Outcome measurement tools:

- The Health Assessment Questionnaire Disability Index.
- Tender point evaluation is one of the American College of Rheumatology's (ACR) diagnostic criteria for fibromyalgia. There are unique anatomical locations called tender points where pressure causes pain. For a diagnosis of fibromyalgia, there must be tenderness in at least 11 of the 18 painful spots that the ACR criteria establish and distribute symmetrically over the body (Wolfe et al., 2020).
- Within tense bands of skeletal muscle are hyperirritable sites known as myofascial trigger points. The patient's discomfort can be replicated and referred pain may be elicited in predictable patterns by palpating specific trigger points (Dommerholt, J. et al, 2019).

3.9 Data collection procedure:

Data was collected from different Government hospitals of Lahore. Health Assessment Questionnaire was used to check the ADLs restrictions in patient of fibromyalgia and myofascial pain syndrome. Data was collected with informed consent by using purposive non-probability sampling technique and kept confidential.

3.10 PARAMETERS OF THE STUDY:

Necessary personal data include:

1. Age
2. Gender
3. Fibromyalgia
4. Myofascial pain syndrome
5. Activities of daily life

3.10.1 Age

Different communities have differing rates of HNMFP (head and neck myofascial pain) prevalence. It's estimated that up to 85% of Americans have had HNMFP at some point in their lives. Females were more impacted than males in the

age range of 27 to 50 years, and 30-85% of all cases would have a true TrP (Sabeh, Bedaiwi et al. 2020).

3.10.2 Gender

There were gender differences in the sites, severity, frequency, and duration, with female patients being more impacted than male patients. Thirty female FMS patients participated in an exploratory descriptive pilot study (Úbeda-D'Ocasar, Valera-Calero et al. 2021).

3.10.3 Fibromyalgia

Fatigue, sleep difficulties, persistent, all-over pain, and functional problems are the hallmarks of fibromyalgia. The causes, classification standards, and diagnostic standards of fibromyalgia are still up for debate, which also affects the approaches taken to treat the illness (Sarzi-Puttini, Giorgi et al. 2020).

3.10.4 Myofascial pain syndrome

One feature of the regional pain illness known as Myofascial Pain Syndrome (MPS), which affects people of all ages, is the existence of trigger points (TrPs) in the muscles or fascia. MPS is the most prevalent cause of persistent regional pain, frequently referred to as "muscle knots" (Urits, Charipova et al. 2020).

3.10.5 Activities of daily life

Myofascial pain syndrome (MPS) and FM fibromyalgia are two examples of chronic pain syndromes that are associated with reduced quality of life, anxiety, and depression. Affective temperament traits, which are markers of mental illness, can be used to predict and identify a tendency toward sadness and anxiety in FM and MPS. In individuals with multiple personality disorder (MPS), this study sought to examine the traits and implications of affective temperament on pain, disability, quality of life, depressive disorders, and anxiety disorder (Badil Güloğlu and Tunç 2022).

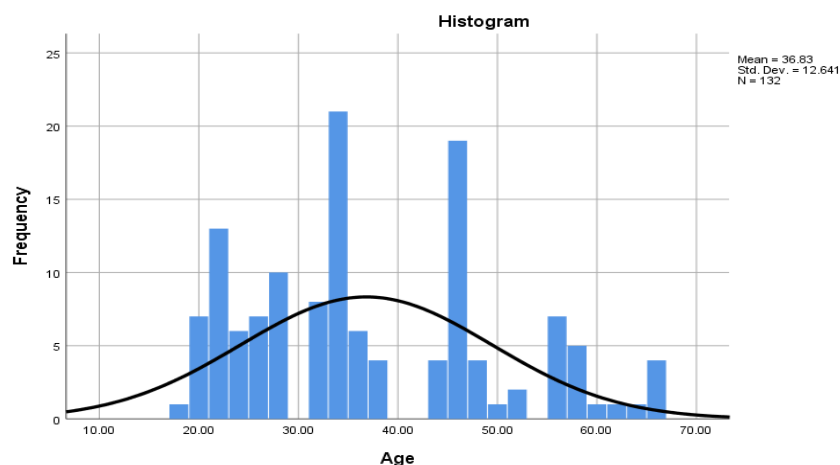


Figure 4.1.1 Statistic of age

Figure 4.1.1

The age statistics of the study participants indicate a mean age of 36.83 years with a standard deviation of 12.64, showing a moderate spread around the

average. The participants' ages range from a minimum of 18 years to a maximum of 65 years, reflecting a diverse age distribution within the sample.

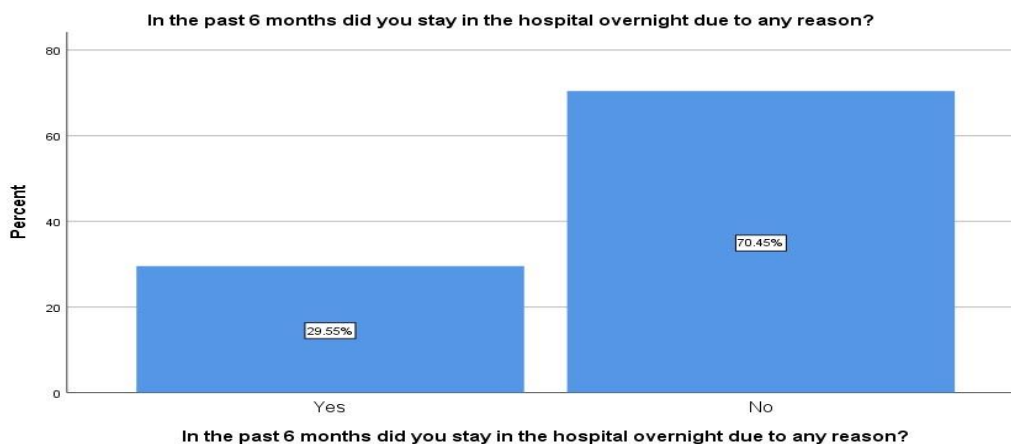


Figure 4.1.2: Stay in Hospital

Figure 4.1.2

In the past six months, 29.5% of participants (39 individuals) reported staying in the hospital overnight for various reasons, while the majority,

70.5% (93 individuals), and did not experience an overnight hospital stay. The total number of respondents for this question was 132.

Table 4.1.1: Outpatient surgery

Table 4.1.1

In the past 6 months have you had any outpatient surgery or procedures?		
	Frequency	Percent
Yes	28	21.2
No	104	78.8
Total	132	100.0

Over the past six months, 21.2% of participants (28 individuals) reported having undergone an outpatient surgery or procedure, while the remaining

78.8% (104 individuals) did not. The total number of respondents for this question was 132.

Table: 4.1.2: Hospital Emergency room

Table: 4.1.2

In the past 6 months you have been to a hospital emergency room?		
	Frequency	Percent
Yes	30	22.7
No	102	77.3
Total	132	100.0

In the past six months, 22.7% of participants (30 individuals) reported visiting a hospital emergency room, while 77.3% (102 individuals) did not. The

total number of respondents for this question was 132.

Table 4.1.3: Rehabilitation center

Table 4.1.3

In the past 6 months where you a patient in nursing or convalescent home or live in rehabilitation center?		
	Frequency	Percent
Yes	40	30.3
No	92	69.7
Total	132	100.0

In the past six months, 30.3% of participants (40 individuals) reported being a patient in a nursing or convalescent home or living in a rehabilitation

center, while 69.7% (92 individuals) did not. The total number of respondents for this question was 132.

Table 4.1.4: Illness in the past week

Table 4.1.4

How much pain have you had because of your illness in the past week	
N	132
Mean	42.4545
Std. Deviation	31.30114
Minimum	.00
Maximum	96.00

In the past week, participants reported varying levels of pain due to their illness, with an average pain score of 42.45. The standard deviation of 31.30 indicates a wide range of pain experiences among

participants. The pain scores ranged from a minimum of 0 to a maximum of 96, demonstrating a significant variation in pain intensity across the group of 132 respondents.

Table 4.1.5: Clinical trial in the past 6 months

Table 4.1.5

Have you participated in any clinical trial in the past 6 months		
	Frequency	Percent
No	79	59.8
Yes, trial of any arthritic medicine	16	12.1
Yes, trial of any other medicine	29	22.0
Don't know the medicine	8	6.1
Total	132	100.0

In the past six months, 59.8% of participants (79 individuals) reported not participating in any clinical trials, while 12.1% (16 individuals) participated in a trial involving arthritic medicine. Additionally,

22.0% (29 individuals) took part in a trial for other types of medicine, and 6.1% (8 individuals) were unsure of the specific medicine involved. The total number of respondents for this question was 132.

Table 4.1.6: Current health

Table 4.1.6

In general, would you say your current health is		
	Frequency	Percent
Excellent	20	15.2
Very good	44	33.3
Good	12	9.1
Fair	42	31.8
Poor	14	10.6
Total	132	100.0

When asked about their current health, 33.3% of participants (44 individuals) rated it as "Very good," while 15.2% (20 individuals) considered their health "Excellent." A smaller group, 9.1% (12 individuals), described their health as "Good." However, 31.8%

(42 individuals) rated their health as "Fair," and 10.6% (14 individuals) described it as "Poor." The total number of respondents was 132.

Table 4.1.7: Symptoms: head, eyes, ears, nose, mouth and throat

Table 4.1.7

Symptoms: head, eyes, ears, nose, mouth and throat		
	Frequency	Percent
Blurred vision	57	43.2
Ringing in ears	17	12.9
Hearing difficulties	40	30.3
Mouth sores	10	7.6
Loss, change in taste	1	.8
Headaches	4	3.0
Dizziness	2	1.5
12.00	1	.8
Total	132	100.0

Among the participants, 43.2% (57 individuals) reported experiencing blurred vision, and 30.3% (40 individuals) had hearing difficulties. A smaller percentage, 12.9% (17 individuals), experienced ringing in the ears, while 7.6% (10

individuals) had mouth sores. Other symptoms included headaches (3.0%), dizziness (1.5%), and a very small percentage reported loss or change in taste (0.8%). The total number of respondents was 132.

Table 4.1.8: Symptoms: Chest, lungs and hearts
Table 4.1.8

Symptoms: Chest, lungs and hearts		
	Frequency	Percent
Chest pain	33	25.0
Shortness of breath	70	53.0
Wheezing	29	22.0
Total	132	100.0

Among the participants, 53.0% (70 individuals) reported experiencing shortness of breath, making it the most common symptom related to the chest, lungs, and heart. Additionally, 25.0% (33

individuals) experienced chest pain, while 22.0% (29 individuals) reported wheezing. The total number of respondents was 132.

Table 4.1.9: Symptoms: Gastrointestinal tract
Table 4.1.9

Symptoms: Gastrointestinal tract		
	Frequency	Percent
Loss of appetite	39	29.5
Nausea	39	29.5
Heart burn	30	22.7
Indigestion or belching	16	12.1
Pain or discomfort in upper abdomen	7	5.3
Vomiting	1	.8
Total	132	100.0

Regarding symptoms related to the gastrointestinal tract, 29.5% of participants (39 individuals) reported both loss of appetite and nausea. Heartburn was experienced by 22.7% (30 individuals), while 12.1% (16 individuals) had indigestion or belching. A

smaller percentage reported pain or discomfort in the upper abdomen (5.3%), and only 0.8% (1 individual) experienced vomiting. The total number of respondents was 132.

Table 4.1.10: Musculoskeletal
Table 4.1.10

Symptoms: Musculoskeletal		
	Frequency	Percent
Joint pain	39	29.5
Joint swelling	31	23.5
Low back pain	32	24.2
Muscle pain	16	12.1
Neck pain	1	.8

Weakness of muscles	13	9.8
Total	132	100.0

Among the participants, 29.5% (39 individuals) reported experiencing joint pain, followed by 24.2% (32 individuals) who had low back pain and 23.5% (31 individuals) with joint swelling. Muscle pain was reported by 12.1% (16 individuals), while 9.8% (13

individuals) experienced muscle weakness. A very small percentage, 0.8% (1 individual), reported neck pain. The total number of respondents was 132.

Table 4.1.11: Neurologic and psychological

Table 4.1.11

Symptoms: Neurologic and psychological		
	Frequency	Percent
Depression	54	40.9
Insomnia	21	15.9
Nervousness	28	21.2
Tiredness	22	16.7
Trouble thinking or remembering	7	5.3
Total	132	100.0

In terms of neurologic and psychological symptoms, 40.9% of participants (54 individuals) reported experiencing depression, making it the most common symptom. Nervousness affected 21.2% (28 individuals), while 16.7% (22 individuals)

experienced tiredness and 15.9% (21 individuals) reported insomnia. A smaller percentage, 5.3% (7 individuals), had trouble thinking or remembering. The total number of respondents was 132.

Table 4.1.12: Skin

Table 4.1.12

Symptoms: Skin		
	Frequency	Percent
Easy bruising	40	30.3
Hives or welts	34	25.8
Itching	44	33.3
Rash	14	10.6
Total	132	100.0

Regarding skin-related symptoms, 33.3% of participants (44 individuals) reported experiencing itching, while 30.3% (40 individuals) had issues with easy bruising. Hives or welts were reported by 25.8%

(34 individuals), and 10.6% (14 individuals) experienced rashes. The total number of respondents was 132.

Table 4.1.13: Dressing and grooming

Table 4.1.13

Dressing and grooming		
	Frequency	Percent
Without any difficulties	49	37.1

With some difficulties	37	28.0
With much difficulties	35	26.5
Unable to do	11	8.3
Total	132	100.0

In terms of dressing and grooming, 37.1% of participants (49 individuals) reported being able to perform these tasks without any difficulties. However, 28.0% (37 individuals) experienced some difficulties, while 26.5% (35 individuals) had much

difficulty. Additionally, 8.3% (11 individuals) were unable to perform dressing and grooming tasks. The total number of respondents was 132.

Table 4.1.14: Arising

Table 4.1.14

Arising		
	Frequency	Percent
Without any difficulties	43	32.6
With some difficulties	57	43.2
With much difficulties	22	16.7
Unable to do	10	7.6
Total	132	100.0

Regarding the ability to arise, 32.6% of participants (43 individuals) reported no difficulties, while the majority, 43.2% (57 individuals), experienced some difficulties. Additionally, 16.7% (22 individuals) had

significant difficulties, and 7.6% (10 individuals) were unable to arise without assistance. The total number of respondents was 132.

Table 4.1.15: Eating

Table 4.1.15

Eating		
	Frequency	Percent
Without any difficulties	59	44.7
With some difficulties	29	22.0
With many difficulties	38	28.8
Unable to do	6	4.5
Total	132	100.0

In terms of eating, 44.7% of participants (59 individuals) reported no difficulties, while 22.0% (29 individuals) experienced some difficulties. Additionally, 28.8% (38 individuals) had significant

difficulties with eating, and 4.5% (6 individuals) were unable to eat without assistance. The total number of respondents was 132.

Table 4.1.16: Walking

Table 4.1.16

Walking		
	Frequency	Percent

Without any difficulties	59	44.7
With some difficulties	33	25.0
With much difficulties	28	21.2
Unable to do	12	9.1
Total	132	100.0

In terms of walking, 44.7% of participants (59 individuals) reported no difficulties, while 25.0% (33 individuals) experienced some difficulties. Additionally, 21.2% (28 individuals) had significant

difficulties walking, and 9.1% (12 individuals) were unable to walk without assistance. The total number of respondents was 132.

Table 4.1.17: Aids or Devices

Table 4.1.17

Please check any AIDS OR DEVICES that you usually use for any of these activities		
	Frequency	Percent
Cane	11	8.3
Walker	29	22.0
Crutches	33	25.0
Wheelchair	19	14.4
Device used for dressing (button hook, zip long handled shoehorn, etc.)	25	18.9
Built up special utensils	3	2.3
Special or built-up chair	12	9.1
Total	132	100.0

Among the participants, 25.0% (33 individuals) reported using crutches, while 22.0% (29 individuals) used a walker, and 14.4% (19 individuals) used a wheelchair. Additionally, 18.9% (25 individuals) used devices for dressing, such as button hooks or long-handled shoe horns. A smaller

percentage, 9.1% (12 individuals), used special or built-up chairs, 8.3% (11 individuals) used a cane, and 2.3% (3 individuals) used built-up utensils. The total number of respondents was 132.

Table 4.1.18: Need help from another person

Table 4.1.18

Please check any categories for which you usually need help from other person		
	Frequency	Percent
Dressing and Grooming	33	25.0
Arising	50	37.9
Eating	19	14.4
Walking	30	22.7
Total	132	100.0

When asked about activities that require assistance from another person, 37.9% of participants (50 individuals) needed help with arising, and 25.0% (33 individuals) required assistance with dressing and

grooming. Additionally, 22.7% (30 individuals) needed help with walking, and 14.4% (19 individuals) required assistance with eating. The total number of respondents was 132.

Table 4.1.19: Hygiene

Table 4.1.19

Hygiene		
	Frequency	Percent
Without any difficulties	50	37.9
With some difficulties	42	31.8
With much difficulties	34	25.8
Unable to do	6	4.5
Total	132	100.0

Regarding hygiene, 37.9% of participants (50 individuals) reported no difficulties, while 31.8% (42 individuals) experienced some difficulties. Additionally, 25.8% (34 individuals) had significant difficulties with hygiene tasks, and 4.5% (6

individuals) were unable to manage their hygiene without assistance. The total number of respondents was 132.

Table 4.1.20: Reach

Table 4.1.20

Reach		
	Frequency	Percent
Without any difficulties	46	34.8
With some difficulties	40	30.3
With many difficulties	26	19.7
Unable to do	20	15.2
Total	132	100.0

In terms of reach, 34.8% of participants (46 individuals) reported no difficulties, while 30.3% (40 individuals) experienced some difficulties. Additionally, 19.7% (26 individuals) had significant

difficulties reaching, and 15.2% (20 individuals) were unable to reach without assistance. The total number of respondents was 132.

Table 4.1.21: Grip

Table 4.1.21

Grip		
	Frequency	Percent
Without any difficulties	63	47.7
With some difficulties	42	31.8
With many difficulties	19	14.4
Unable to do	8	6.1
Total	132	100.0

Regarding grip, 47.7% of participants (63 individuals) reported no difficulties, while 31.8% (42 individuals) experienced some difficulties. Additionally, 14.4% (19 individuals) had significant

difficulties with grip, and 6.1% (8 individuals) were unable to grip without assistance. The total number of respondents was 132.

Table 4.1.22: Activities

Table 4.1.22

Activities		
	Frequency	Percent
Without any difficulties	56	42.4
With some difficulties	26	19.7
With many difficulties	46	34.8
Unable to do	4	3.0
Total	132	100.0

In terms of performing activities, 42.4% of participants (56 individuals) reported no difficulties, while 19.7% (26 individuals) experienced some difficulties. Additionally, 34.8% (46 individuals) had significant difficulties, and

3.0% (4 individuals) were unable to perform activities without assistance. The total number of respondents was 132.

Table 4.1.23: Aids or Devices

Table 4.1.23

Please check any AIDS OR DEVICES that you usually use for any of these activities		
	Frequency	Percent
Raised toilet seat	29	22.0
Bathtub seat	36	27.3
Jar opener	23	17.4
Bathtub bar	19	14.4
Long handled appliances for reach	9	6.8
Long handled appliances for bathroom	16	12.1
Total	132	100.0

Among the participants, 27.3% (36 individuals) reported using a bathtub seat, and 22.0% (29 individuals) used a raised toilet seat for assistance. Additionally, 17.4% (23 individuals) used a jar opener, while 14.4% (19 individuals) used a

bathtub bar. A smaller percentage used long-handled appliances for reaching (6.8%) and for the bathroom (12.1%). The total number of respondents was 132.

Table 4.1.24: Need help from another person

Table 4.1.24

Please check any categories for which you usually need help from other person		
	Frequency	Percent
Hygiene	30	22.7
Reach	25	18.9
Gripping and opening things	39	29.5
Errands and chores	38	28.8
Total	132	100.0

Among the participants, 29.5% (39 individuals) required assistance with gripping and opening things, and 28.8% (38 individuals) needed help with errands and chores. Additionally, 22.7% (30

individuals) required assistance with hygiene tasks, while 18.9% (25 individuals) needed help with reaching. The total number of respondents was 132.

Table 4.1.25: Cross tabulation

Table 4.1.25

ADLs restrictions * Diagnosed patients' Cross tabulation				
		Diagnosed patients		Total
		Fibromyalgia	Myofascial pain syndrome	
ADLs restrictions	No restriction	12	8	20
	Mild restrictions	29	13	42
	Moderate restrictions	29	16	45
	Severe restrictions	12	13	25
Total		82	50	132

The cross-tabulation between activities of daily living (ADLs) restrictions and diagnosed patients (fibromyalgia and myofascial pain syndrome) shows varying levels of restrictions across both groups. Among patients with fibromyalgia, 12 experience no ADL restrictions, while the majority face mild (29) and moderate (29) restrictions, with 12 experiencing severe restrictions. For patients diagnosed with myofascial pain syndrome, 8 have no restrictions, while 13 experience mild restrictions, 16 face

moderate restrictions, and 13 suffer from severe restrictions. Overall, the data indicates that both conditions lead to a range of functional limitations, with most patients experiencing mild to moderate restrictions in their daily activities. Out of 132 patients, 45 have moderate restrictions, making it the most common level of ADL limitation across both groups. In overall, fibromyalgia patients had greater restriction as compared to myofascial pain syndrome.

Table 4.1.26: Chi-Square Test Result Table

Test	Value	df	p-value
Chi-Square	3.12	3	0.374

Since the p-value (0.374) is higher than 0.05, we fail to reject the null hypothesis.

DISCUSSION

The study highlights significant restrictions in performing Activities of Daily Living (ADLs) among fibromyalgia (FM) patients, with the most profound impact seen in tasks requiring mobility and fine motor skills such as walking, gripping, and dressing. Many patients rely on assistive devices like walkers and crutches to navigate daily activities, and a considerable portion requires assistance with arising, dressing, grooming, and walking. These findings align with previous research, which also documented widespread pain and its significant impact on physical function. Studies confirm the frequent use of assistive devices among FM patients, highlighting the debilitating nature of the disease. The reliance

on others for daily activities mirrors earlier findings, emphasizing the dependency on external support for basic tasks (9).

In addition to the physical limitations, psychological symptoms were prevalent, with a significant portion of participants experiencing depression and nervousness, further compounding difficulties in ADLs. These results are consistent with previous studies that found psychological symptoms like depression and anxiety are common among FM patients and significantly exacerbate functional impairments. The presence of cognitive dysfunction, though less pronounced in the current study, also aligns with earlier findings, where challenges such as "fibro fog" were reported. These psychological

factors, in combination with chronic pain, contribute to the high levels of disability seen in FM patients, highlighting the necessity of all-encompassing treatment strategies that take physical and mental health issues into account (10).

Fatigue, a hallmark symptom of fibromyalgia, was another major contributor to the restrictions in ADLs. Previous studies emphasize its critical role in reducing patients' ability to perform even basic tasks, and the reliance on mobility aids and assistance from others is often a direct result of the combined effects of fatigue, pain, and cognitive dysfunction, which severely limit physical independence. Self-reported health statuses varied, with some participants feeling capable, while others rated their health as fair or poor, reflecting the overall diminished quality of life experienced by those with the condition. Together, these findings highlight the chronic and multifaceted nature of fibromyalgia, underscoring the importance of multidisciplinary care to address both the physical and psychological aspects of the disease (11).

The findings of this study, when compared to previous research, reinforce the understanding that fibromyalgia is a complex, multi-system condition that affects both physical and psychological well-being. The restrictions in ADLs due to chronic pain, fatigue, and cognitive challenges highlight the significant impact fibromyalgia has on patients' independence and quality of life. Additionally, the high prevalence of psychological symptoms such as depression and anxiety further complicates the condition, often leading to a cycle where mental health issues exacerbate physical symptoms, and vice versa. These challenges emphasize the need for a holistic approach to treatment that includes pain management, psychological support, and strategies to improve physical function. Addressing all facets of the disease through multidisciplinary interventions can help improve ADLs, reduce reliance on assistive devices, and ultimately enhance the overall well-being of fibromyalgia patients (12).

SUMMARY

Although the clinical syndrome known as "myofascial pain" is still not clearly defined, it is thought to be present in 30% of patients who have headaches, TMJ discomfort, and persistent discomfort in the shoulders, hips, pelvis, back, and

neck due to musculoskeletal issues. The study shows that fibromyalgia (FM) patients have considerable limitations when it comes to executing Activities of Daily Living (ADLs). These limitations are most noticeable when it comes to activities that require mobility and fine motor skills, such as dressing, clutching, and walking. When compared to earlier studies, the results of this one solidify the notion that fibromyalgia is a multifaceted, intricate ailment that impacts one's physical and mental health. Fibromyalgia significantly affects patients' independence and quality of life, as seen by the limitations placed on ADLs by persistent pain, exhaustion, and cognitive difficulties. The purpose of this study is to improve patient management and healthcare strategies by offering fresh perspectives on ADL limits in FMS and MPS patients in Lahore.

6.1 CONCLUSION

The study highlights significant restrictions in performing activities of daily living (ADLs) among fibromyalgia (FM) patients, with the most profound impact seen in tasks requiring mobility and fine motor skills such as walking, gripping and dressing. In this study null hypothesis is accepted.

6.2 RECOMMENDATIONS

- Conduct studies with larger sample sizes to increase generalizability.
- Include healthy control groups for comparison.
- Use longitudinal designs to examine changes in ADL restrictions over time.
- Compare ADL restrictions in fibromyalgia and myofascial pain syndrome with other chronic pain conditions.

6.3 LIMITATIONS

- The study may have limited generalizability due to a small number of participants.
- The absence of a healthy control group makes it difficult to compare ADL restrictions between patients and healthy individuals.
- The study relied on self-reported measures of ADLs, which may be prone to bias.
- The study only included patients from a specific region or clinic, which may not represent the larger population.

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APPENDIX-I Consent Form (English)

Research and details of your participation.

You have been invited to participate in a research study conducted by the purpose of this study is found.

Risks and disadvantages

There are no specific risks or disadvantages to participate in this research.

Potential benefits by participating in the research

Association between hamstring stiffness and plantar fasciitis in young females

Privacy Protection

We will do everything possible to protect your privacy. Your identity will not reveal at any stage of this investigation.

Voluntary participation

Your participation in this research study is voluntary. You can choose, not to participate in this study. You can withdraw your consent to participate at any time.

Contact Information

If you have any concerns or questions regarding this study, please contact the Afro-Asian Institute mobile number. If you have any concerns as a co-researcher, please contact the research review board of the institute.

Consent

I have read this form and I have been given the opportunity to ask questions. I give my consent to participate in this study.

Signature

You will be given a copy of this consent form.

APPENDIX II: CONSENT FORM (URDU)

فارم رضا مندی
تحقیق اور آپ کی شرکت کی تفصیلات
آپ کو ایک تحقیقی مطالعے میں شرکت کی
دعوت دی گئی ہے جو انجام دیا جائے گا۔
خطرات اور نقصانات
اس تحقیق میں شرکت کے لئے کوئی
مخصوص خطرات یا نقصانات نہیں ہیں۔
تحقیق میں شرکت کے ذرائع سے ممکنہ فوائد۔
نوجوان خواتین میں ہمسٹرنگ سختی اور
پلانٹر فاس پیائنٹس کے درمیان تعلق
رازداری کی حفاظت
ہم آپ کی رازداری کی حفاظت کے لئے ممکنہ
کوششیں کریں گے۔ آپ کی شناخت کو اس
تحقیق کے کسی بھی مرحلے پر ظاہر نہیں کیا
جائے گا۔
ارادی شرکت
آپ کی شرکت اس تحقیقی مطالعے میں ارادی
ہے۔ آپ اس مطالعے میں شرکت نہیں کرنا چاہتے
تو انکار کرسکتے ہیں۔ آپ اپنے رضاکاری کو
کسی بھی وقت واپس لے سکتے ہیں۔
رابطہ کی معلومات
اگر آپ کو اس تحقیق سے متعلق کوئی شکایت
یا سوال ہو تو برازیلیائی-ایشیائی ادارہ کا موبائل
نمبر رابطہ



کریں۔ اگر آپ کو ایک تحقیق کار کے طور پر
کوئی شکایت ہے تو برازیلیائی ادارہ کے تحقی
قاتی جائزہ بورڈ سے رابطہ کریں۔
رضاکاری
میں نے اس فارم کو پڑھا ہے اور مجھے سوالات
پوچھنے کا موقع دیا گیا ہے۔ میں اس تحقیق میں
شرکت کی رضاکاری دیتا ہوں۔

شرکت
دستخط
تاریخ
آپ کو اس رضاکاری فارم کی ایک نقل دی
جائے گی۔

Please check the response which best describes your usual abilities OVER THE PAST WEEK:

	Without ANY difficulty ⁰	With SOME difficulty ¹	With MUCH difficulty ²	UNABLE to do ³
DRESSING & GROOMING				
Are you able to:				
-Dress yourself, including tying shoelaces and doing buttons?	☐	☐	☐	☐
-Shampoo your hair?	☐	☐	☐	☐
ARISING				
Are you able to:				
-Stand up from a straight chair?	☐	☐	☐	☐
-Get in and out of bed?	☐	☐	☐	☐
EATING				
Are you able to:				
-Cut your meat?	☐	☐	☐	☐
-Lift a full cup or glass to your mo	☐	☐	☐	☐
-Open a new milk carton?	☐	☐	☐	☐
WALKING				
Are you able to:				
-Walk outdoors on flat ground?	☐	☐	☐	☐
-Climb up five steps?	☐	☐	☐	☐

Please check any AIDS OR DEVICES that you usually use for any of these activities:

☐ Cane	☐ Devices used for dressing (button hook, zipper, long-handled shoe horn, etc.)
☐ Walker	☐ Built up or special utensils
☐ Crutches	☐ Special or built up chair
☐ Wheelchair	☐ Other (Specify: _____)

Please check any categories for which you usually need HELP FROM ANOTHER PERSON:

☐ Dressing and Grooming	☐ Eating
☐ Arising	☐ Walking

APPENDIX III: Questionnaire

THE HEALTH ASSESSMENT QUESTIONNAIRE



Please check the response which best describes your usual abilities **OVER THE PAST WEEK:**

	Without ANY difficulty ⁰	With SOME difficulty ¹	With MUCH difficulty ²	UNABLE to do ³
HYGIENE				
Are you able to:				
-Wash and dry your body?	☐	☐	☐	☐
-Take a tub bath?	☐	☐	☐	☐
-Get on and off the toilet?	☐	☐	☐	☐
REACH				
Are you able to:				
-Reach and get down a 5-pound object (such as a bag of sugar) from just above your head?	☐	☐	☐	☐
-Bend down to pick up clothing from the floor?	☐	☐	☐	☐
GRIP				
Are you able to:				
-Open car doors?	☐	☐	☐	☐
-Open jars which have been previously opened?	☐	☐	☐	☐
-Turn faucets on and off?	☐	☐	☐	☐
ACTIVITIES				
Are you able to:				
-Run errands and shop?	☐	☐	☐	☐
-Get in and out of a car?	☐	☐	☐	☐
-Do chores such as vacuuming or yardwork	☐	☐	☐	☐

Please check any **AIDS OR DEVICES** that you usually use for any of these activities:

- | | |
|--|--|
| ☐ Raised toilet seat | ☐ Bathtub bar |
| ☐ Bathtub seat | ☐ Long-handled appliances for reach |
| ☐ Jar opener (for jars previously opened) | ☐ Long-handled appliances in bathroom |
| | ☐ Other (Specify: _____) |

Please check any categories for which you usually need **HELP FROM ANOTHER PERSON:**

- | | |
|----------------------------------|--|
| ☐ Hygiene | ☐ Gripping and opening things |
| ☐ Reach | ☐ Errands and chores |



We are also interested in learning whether or not you are affected by pain because of your illness.

How much pain have you had because of your illness IN THE PAST WEEK:

PLACE A VERTICAL (|) MARK ON THE LINE TO INDICATE THE SEVERITY OF THE PAIN

NO		SEVERE
PAIN		PAIN
0		100

1. Have you participated in any clinical trials in the PAST 6 MONTHS?

- ☐ No
- ☐ Yes - trial of an arthritis medicine Name of medicine _____
- ☐ Yes - trial of another type of medicine Name of medicine _____
- ☐ Don't know the name of the medicine

2. In general, would you say your current health is:

- ☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

SYMPTOMS

1. Please check any items which apply to your health during the PAST 6 MONTHS.

If none, check here: ☐

HEAD, EYES, EARS, NOSE, MOUTH / THROAT:

- ☐ Blurred vision
- ☐ Ringing in ears
- ☐ Hearing difficulties
- ☐ Mouth sores
- ☐ Loss, change in taste
- ☐ Headache
- ☐ Dizziness
- ☐ Fever

CHEST, LUNGS AND HEART

- ☐ Chest pain
- ☐ Shortness of breath
- ☐ Wheezing (asthma)

GASTROINTESTINAL TRACT:

- ☐ Loss of appetite
- ☐ Nausea
- ☐ Heartburn
- ☐ Indigestion or belching
- ☐ Pain or discomfort in upper abdomen(stomach)

- ☐ Liver problems, kind _____
- ☐ Pain or cramps in lower abdomen (colon)
- ☐ Diarrhea (frequent, explosive watery bowel movements, severe)
- ☐ Constipation
- ☐ Black or tarry stools (not from iron)
- ☐ Vomiting

FEMALES ONLY - ☐ Are you pregnant?

OTHER ☐ Any others? (specify) _____

- ☐ Joint swelling
- ☐ Low back pain
- ☐ Muscle pain
- ☐ Neck pain
- ☐ Weakness of muscles
- ☐ If you are stiff in the morning _____ (hr/min) how long does the stiffness last?

NEUROLOGIC AND PSYCHOLOGIC

- ☐ Depression
- ☐ Insomnia
- ☐ Nervousness
- ☐ Tiredness (Fatigue)
- ☐ Trouble thinking or remembering

SKIN:

- ☐ Easy bruising
- ☐ Hives or welts
- ☐ Itching
- ☐ Rash

**MEDICAL HISTORY**

We are interested in your use of health care providers in the **PAST 6 MONTHS**. Please include **ALL** visits.

1. In the **PAST 6 MONTHS** did you stay in the hospital overnight for any reason? ☐ Yes ☐ No

-If Yes, please describe each hospitalization visit:

Reason for Hospitalization	Hospital (City, State)	Admission Date (Month, Year)	Number of Nights in Hospital	Was this a Medical or Surgical Stay?

2. Were any of these hospitalizations related to a side effect from any of your medications? ☐ Yes ☐ No

-If Yes, which hospitalization(s) and which medication(s):

3. In the **PAST 6 MONTHS** have you had any outpatient surgery or procedures? ☐ Yes ☐ No

-If Yes, please list:

Surgery/Procedure	Doctor's Name	Location and Address (Hospital, Doctor's Office)	Date (Month, Year)	Was this a Medical or Surgical Visit?

4. In the **PAST 6 MONTHS** have you been to a hospital Emergency Room? ☐ Yes ☐ No

Do not include "after hour clinics" or "urgent care centers"

-If Yes, how many visits?

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