Effect of Fibromyalgia on Patient's Quality of Life and Disability

[1] **Zeinab Mohamed Ahmed,** [2] **Mona Mohammed Abo El-ella Mohammed**
(1) Assistant Professor of Medical Surgical Nursing department, Faculty of Nursing, Zagazig University.
(2) Lecturer of Medical Surgical Nursing, Faculty of Nursing, South Valley University

Abstract

Background: Individuals suffering from fibromyalgia frequently experience limitations in carrying out everyday tasks. The precise pathological processes driving fibromyalgia remain elusive, yet it often results in a diminished quality of life. **The aim of the study aimed to:** Assess the effect of fibromyalgia the patient 'quality of life, and disability. **Design:** This study used a descriptive research approach. **Setting:** The research was conducted at the medical facility of Zagazig University's outpatient clinic of the Department of Rheumatology and Rehabilitation. **Subjects:** The study enrolled a total of 50 fibromyalgia patients. **Tools:** Three assessment tools were utilized, including 1): a patient evaluation form,2): fibromyalgia impact questionnaire, and 3): Short Form 36 Health-Related Quality of Life Questionnaire was administered. **Findings:** 85.7 ± 6.7 of Patients experienced significant levels of overall disability associated with fibromyalgia and fibromyalgia disease effects on 66.8 ± 5.9 of patients' quality of life. **Conclusion:** The vast majority of fibromyalgia patients are significantly impacted by disability related disease. As well, about two thirds of patients had negative impact on total QOL. **Recommendations**: To extend the applicability of the results, replicate this research across diverse settings with a larger sample size of fibromyalgia patients.

Keywords: Fibromyalgia Patients, Quality of Life &Disability.

Introduction:

Fibromyalgia (FM) is a prevalent and intricate chronic pain condition, impacting approximately 1% to 5% of individuals. It is typified by enduring widespread pain lasting over three months without apparent organic damage. Additionally, FM is linked with symptoms such as joint stiffness, fatigue, disrupted sleep, cognitive impairment, and depression **(D'Agnelli et al., 2019).**

Fibromyalgia poses significant personal and societal burdens. Despite the absence of a practical biomarker for diagnosis or tracking advancement, multiple irregularities have been detected in the operation of the pain-related nervous system, spanning central and peripheral components. Numerous observations in fibromyalgia initially seem disconnected and challenging to harmonize, emphasizing the importance of grasping the adaptive changes in the nervous system's functionality, known as functional neuroplasticity **(Littlejohn & Guymer., 2018).**

Women with fibromyalgia demonstrate lower levels of physical activity compared to their healthy counterparts, particularly in terms of moderate to high-intensity activities. The majority of studies assessing disability in fibromyalgia often contrast employed individuals with those who are not employed **(Horta-Baas & Romero-Figueroa., 2019).**

Fibromyalgia may also correlate with certain medical conditions like infections, diabetes, rheumatic disorders, and psychiatric or neurological ailments. It tends to occur more frequently in women than men, typically manifesting between the ages of 30 and 35. Nonetheless, fibromyalgia continues to be an enigmatic

and challenging-to-diagnose condition (**Siracusa et al., 2021**).

The connection between fibromyalgia and inflammation along with oxidative stress implies that treatments targeting anti-inflammatory or antioxidant pathways could play a crucial role in managing and adjusting fibromyalgia symptoms. However, the effectiveness of many drugs prescribed for fibromyalgia is limited, with only modest improvements observed. In fact, a substantial portion of patients, ranging from 40% to 60%, do not respond favorably to drug therapy, and many fibromyalgia sufferers are susceptible to the adverse effects of these medications. Therefore, ongoing efforts to explore and advocate for novel therapeutic approaches for fibromyalgia patients are still in progress (**Favero et al., 2017**).

Fibromyalgia represents a chronic health issue prone to flare-ups, demanding Advanced Practice Registered Nurses (APRNs) to ensure top-tier, patient-centric care by conducting reassessments every 6-8 weeks post-introduction of new therapies. Utilizing tools like the Revised Fibromyalgia Impact Questionnaire aids in probing the primary features of fibromyalgia and tracking the initial and subsequent status of patient symptoms such as pain and fatigue. APRNs need to be vigilant for signs or symptoms incongruent with fibromyalgia, such as abnormal constitutional symptoms like unintended weight changes or new or changing night pain, progressive deterioration of symptoms, prolonged severe stiffness, joint hypermobility or synovitis, skin abnormalities like rashes or nodules, or neurologic sensorimotor deficits. It's important to note that isolated psychiatric symptoms do not singularly diagnose fibromyalgia, although patients with fibromyalgia may indeed display depressive or anxious moods (**John et al., 2022**).

Patients experiencing chronic pain, particularly when it's persistent and severe, report a diminished quality of life. This situation impacts their emotional well-being, hinders their ability to carry out daily tasks, strains personal relationships, and fosters social withdrawal. The limited understanding of fibromyalgia's root causes and the absence of effective treatments contribute to feelings of uncertainty among those affected by this condition (**García-Perea et al., 2021**).

Assisting patients in coping with chronic pain conditions like fibromyalgia (FM) continues to pose a significant challenge for nurses. A pivotal approach in this regard lies in patient education. Empowering individuals through health education stands as a key component in promoting health within primary healthcare settings, equipping each person with the knowledge and skills needed to assume control and accountability for their well-being (**Antunes et al., 2022**).

Significance of the Study:

Fibromyalgia represents a complex chronic pain syndrome affecting numerous individuals world-wide, manifesting as pervasive physical discomfort, tenderness, and fatigue, often accompanied by sleep disturbances and cognitive difficulties. Its impact on individuals extends beyond the physical realm, significantly influencing their **quality of life and functional abilities (Wasti et al., 2023).**

The lack of information and scarce investigation into how fibromyalgia impacts the quality of life and disability among patients in Egypt underscores the necessity for this study, as outlined in the literature review.

Aim of the Study:

To assess the effect of fibromyalgia on patients' quality of life and disability.

Research Questions:

- How would you describe the quality of life experienced by individuals with fibromyalgia?
- What is the amount of impairment among affected patients?

Subjects and Methods:

Research Design:

This research utilized a descriptive design.

Setting:

The study was performed at Zagazig University Hospital's Outpatient Clinic of the Department of Rheumatology and Rehabilitation; ground floor which equipped with a hall, with a number of chairs for waiting patients and two corridors branching off to the right and left. Each corridor consists of 6 rooms and the first room in the left corridor was for examination.

Subject:

Purposive of all 50 fibromyalgia patients attending the outpatient facility housed within the Rheumatology and Rehabilitation Department at Zagazig University Hospitals were used in the study.

Data Collection Instruments:

To achieve the study's aims, three instruments were employed for data collection:

Instrument I: Patient Assessment Form:

This form, constructed by the researcher referencing contemporary national and international literature, comprises two sections:

Section 1: Demographic Information Sheet: Designed to facilitate a demographic analysis of patient data, this section includes seven variables: Age, sex, marital status, level of education, income level, and residence.

Section 2: Medical History Assessment: To ascertain date of disease onset, the family history of disease, as well as the follow up care.

Instrument II: Fibromyalgia Impact Questionnaire:

To assess the fibromyalgia disability index score among fibromyalgia patients, the Fibromyalgia Impact Questionnaire (FIQ) was utilized. The FIQ comprises 10 items, with the first item containing 11 questions pertaining to physical functioning, each rated on a 4-point Likert scale. Items 2 and 3 involve the patient indicating the number of days they felt well and the number of days they were unable to work (including housework) due to fibromyalgia symptoms. Items 4 through 10 are horizontal linear scales marked in 10 increments, where patients rate work difficulty, pain, fatigue, morning tiredness, stiffness, anxiety, and depression.

The scoring system of the FIQ assigns higher scores to indicate a greater impact of the syndrome on the individual.

As for Instrument III, the Short Form 36 Health Related Quality of Life Questionnaire was employed to evaluate the quality of life index score in fibromyalgia patients.

Scoring System:

The quality-of-life index questionnaire consists of 36 items, which evaluate 8 significant dimensions: physical functioning, role functioning physical, bodily pain, general health, vitality, social

functioning, role functioning emotional, and mental health. Additionally, patients are prompted to assess their overall health within this questionnaire. All subscales range from 0 to 100.

Fieldwork:

This study was executed in the following manner:

Administrative Design:

Official authorization to conduct the study was secured from the relevant authorities at the outpatient clinic of the Department of Rheumatology and Rehabilitation at Zagazig University Hospital. To ensure the validity and reliability of the tools, they underwent necessary revisions by nursing experts.

Validity and Reliability Assessment:

Three expert professors in nursing and medicine evaluated the instruments for clarity, relevance, comprehensiveness, comprehension, applicability, and ease of use. Minor modifications were made based on their feedback, resulting in the final version.

Pilot Study:

A pilot study was carried out in August 2023 to assess the feasibility and practicality of the study tools. Ten percent of the sample (5 patients) participated, providing insight into the tools' usability and estimating the time required for completion.

Data Collection Process:

Data collection commenced after obtaining all necessary formal approvals. Researcher introduced herself to patients to facilitate rapport and explained the study's purpose and objectives. From September 2023 to January 2024, data collection spanned fifth months, accommodating patients during morning and afternoon shifts until 1:30 p.m. Participants completed the three questionnaire instruments during individual interviews, each lasting between 35 and 45 minutes.

Administrative and Ethical Considerations:

Patients provided informed oral consent after being briefed on the study's aims. They were assured of privacy and the right to withdraw at any point. Privacy and confidentiality were rigorously maintained throughout the data collection process, ensuring no risk to the participants.

Statistical Analysis:

Collected data were reviewed, coded, and entered into a personal computer (PC). Statistical Package for Social Sciences (SPSS) version 20 was employed for data entry and analysis. Results were presented using frequencies, percentages, mean standard deviation, and the significance of findings was determined using the Chi-square test, with $p < 0.05$ considered statistically significant.

Results:

Table (1): Illustrates that among the patients under examination, 62% fell within the age range of 31 to 40 years, percentage of 82% were female According to occupation, the biggest proportion (70%) were employed, 76% of them were married, and 84% percent of them resided in rural areas and 80% of them reported inadequate financial resources.

Table (2): Reveals that 88% of the patients involved in the study did not report any familial occurrence of. Concerning

patients' follow up, about 76% of patients performed irregular follow up.

Table (3): Illustrates that of the study patients always prepared meals with themselves. About 78% of studied subjects occasionally did shopping. The majority of studied subjects (62%) occasionally visited friends and relatives. Concerning doing yard work, 74% of studied patients never did it. Finally, in relation to driving car, most of the studied patients (88%) never drive car.

Table (4): Displays that 10 ±0.3of patients in the current study felt severe tired, 9.2 ±1.3 of studied patients suffered from severe pain, and 9.2 ±1.1 of them felt anxious.

Table (5): Illustrates that 88% of the studied subjects reported a significant deterioration in their health compared to one year ago.

Table (6): Reveals that 76% of studied patients reported that disease limited a little during bathing or dressing themselves. Concerning engaging in moderate activities like moving furniture, vacuuming, bowling, or playing golf, 64% of the studied subjects reported that disease greatly restricted them during performing moderate tasks. Finally, more than half of patients the disease limited a little them during Walking several blocks.

Table (7): Illustrates that concerning role limitation due to emotional problem, 98% of studied patients accomplished the work less than they would like, and 96% of them didn't do work or other activities with their usual level of care.

Table (8): Illustrates that concerning role limitation due to physical health with less satisfaction than desired and experienced restrictions in the types of work or activities they could engage in.

Table (9): Displays that 60% of studied patients reported that Pain disrupted their regular work, encompassing both employment outside the home and household chores, throughout the previous four weeks.

Table (10): Reveals that more than half of patients (56%) feel full of pep none of the time.62% of studied patients experienced moments of calm and tranquillity. Finally, 64% of patients felt happy person a little of the time.

Table (11): Illustrates that concerning general health, 64% of studied subjects reported that definitely false they as healthy as anybody they know.88% of the patients reported that definitely false their health is excellent, and their general health was poor.

Table (12): This study found no statistically meaningful connections between different age brackets, total disability levels, and overall patient quality of life.

Table (13): According to this study, significant statistical relationships were observed between sex, total disability levels, and overall patient quality of life.

Table (14): This study revealed statistically meaningful correlations between occupation, total disability levels, and overall patient quality of life.

Table (15): This study uncovered statistically significant correlations between marital status, total disability levels, and overall patient quality of life.

Table (16): This study did not find any statistically significant links between educational level, and total disability levels. However, it did identify statistically significant connections between educational level, and the overall quality of life among patients.

Table (17): According to this study, significant statistical relationships were observed among income, total disability levels, and overall patient quality of life.

Table (18): This study revealed statistically significant correlations between residence, total disability levels, and overall patient quality of life.

Table (19): According to this study, significant statistical associations were

found between family history, total disability levels, and overall patient quality of life.

Table (20): This study found no statistically meaningful relationships between date of onset of disease, and total disability levels. However, it did reveal statistically significant connections between date of onset of disease, and overall patient quality of life.

Table (21): There were statistically significant correlation observed between total disability levels, and the overall quality of life reported by patients according to this study.

Figure (1): Shows that this study indicates a correlation between the overall quality of life and total disability score.

Table (1): The distribution of socio-demographic characteristics among fibromyalgia patients.

Study Group (n=50)		
	N	**%**
Age (years)		
31-40	31	62%
41-50	19	38%
Gender		
Male	9	18%
Female	41	82%
Marital Status		
Single	12	24%
Married	38	76%
Educational level		
Learned	29	58%
Not Learned	21	42%
Occupation		
Employed	15	30%
Not Employed	35	70%
Income		
Enough	10	20%
Not Enough	40	80%
Residence		
Urban	8	16%
Rural	42	84%

Table (2) Distribution of Medical History of the Studied Patients with fibromyalgia.

Medical History	N	%
Date of Disease Onset		
Less than 5 years	25	50%
Between 5and 10 years	14	28%
More than 10 years	11	22%
Family history		
Yes	6	12%
No	44	88%
Follow up		
Every Month	5	10%
Every three months	7	14%
Erratic follow up	38	76%

Table (3) Distribution of level of disability for the Studied Patients with fibromyalgia (physical function impairment).

Physical function subscales (item 1)	Always (0) N (%)	Almost (1) N (%)	Occasionally (2) N (%)	Never (3) N (%)
Go shopping?	0	2(4%)	39(78%)	9(18%)
Use a washer and dryer to do your laundry?	24(48%)	8(16%)	9(18%)	9(18%)
Make dinners?	25(50%)	10(20%)	3(6%)	12 (24%)
Hand wash dishes and kitchenware?	24(48%)	3(6%)	14(28%)	9(18%)
Does a rug require vacuuming?	21(42%)	0	20(40%)	9(18%)
Make your own bed?	17(34%)	0	22(44%)	11(22%)
stroll a few blocks?	0	8(16%)	18(36%)	24(48%)
See family or friends?	0	4(8%)	31(62%)	15(30%)
Perform yard labor.	0	0	13(26%)	37(74%)
Drive a car?	0	1(2%)	5(10%)	44(88%)
Scale a flight of stairs?	10(20%)	13(26%)	23(46%)	4(8%)
Total score for item 1 Mean ± SD Range (min: max)	19.9±4.3 15:27			

Table (4) Distribution of level of disability for the Studied Patients with fibromyalgia and total score for disability.

Comparison of current health status to that of one year ago	Significantly improved compared to one year ago (5) N (%)	Somewhat better now than one year ago (4) N (%)	Approximately the same (3) N (%)	Experiencing a slight decline compared to one year ago (2) N (%)	Much deteriorate in health compared to one year ago (1) N(%)
How would you rank your overall health now compared to a year ago?	0(0%)	0	0(0%)	6(12%)	44(88%)

Table (5) Distribution of quality of life for the Studied Patients with fibromyalgia (Health rating compared to one year ago)

	Mean ± SD	Range(min: max)
(Item 2) Of the last seven days, how many did you feel well on?	1.1 ±0.8	0:3
(Item 3) How many days were you unable to work due to fibromyalgia, including household tasks?	4 ±2.4	0:7
0= none 10=severe		
(Item 4) How much did pain or other fibromyalgia symptoms prevent you from doing your job, including housekeeping, when you were employed?	8.6 ±1.6	3:10
(Item 5) How severe is your pain?	9.2 ±1.3	5:10
(Item 6) How exhausted have you been	10 ±0.3	9:10
(Item 7) What emotions do you have in the morning?	10 ±0.6	8:10
(Item 8) To what extent have you been stiff?	8.2 ±1.5	6:10
(Item 9) How tense or uneasy have you felt?	9.2 ±1.1	7:10
(Item 10) To what extent have you felt down or hopeless?	5.8 ±1.8	2:7
Total disability score [a]	85.7±6.7	65:96

_[a] total disability score formed from 10 items with max score equal 100 which mean max disability.

Table (6) Distribution of quality of life for the Studied Patients with fibromyalgia (physical activities subscales)

Physical function subscales	Yes, severely restricted (1) N (%)	Yes, restricted to some extent (2) N (%)	No, Completely unrestricted (3) N (%)
Exerting oneself vigorously by running, lifting large objects, or engaging in demanding athletic activities	27(54%)	12(24%)	11(22%)
Moderate exercises including bowling, golfing, pushing a vacuum cleaner, and moving tables	32(64%)	12(24%)	6(12%)
Hefty lifting or grocery shopping	26(52%)	19(38%)	5(10%)
Ascending multiple sets of stairs	27(54%)	23(46%)	0
A single flight of steps	13(26%)	26(52%)	11(22%)
Stooping, bending, or kneeling	27(54%)	23(46%)	0
Strolling over a mile	19(38%)	25(50%)	6(12%)
Strolling a few blocks	18(36%)	27(54%)	5(10%)
Taking a single block stroll	8(16%)	25(50%)	17(34%)
Taking a shower or getting dressed	7(14%)	38(76%)	5(10%)
Total score Mean ± SD Range (min: max)	**19.5±2.2** **16:25**		

Table (7) Distribution of quality of life for the Studied Patients with fibromyalgia (limitation to emotional health)

Role restriction brought on by an emotional issue	Yes N (%)	No N (%)
Reduce the time you spend working or engaging in other activities.	47(94%)	3(6%)
Not as accomplished as you would have liked	49(98%)	1(2%)
Didn't exercise the usual caution when working or doing other tasks	48(96%)	2(4%)
Total score Mean ± SD Range (min: max)	3 ±0.14 3:4	

Table (8) The distribution of quality of life among the examined fibromyalgia patients concerning limitations in physical health.

Physical limitations limiting one's role	Yes N (%)	No N (%)
Reduce the time you spend working or engaging in other activities.	49(98%)	1(2%)
Not as accomplished as you would have liked	50(100%)	0
Were restricted in the nature of the work or other pursuits	50(100%)	0
Had trouble completing the task or other tasks (e.g., it required more extra exertion)	48(96%)	2(4%)
Total score Mean ± SD Range (min: max)	4 ±0.3 3:6	

Table (9) Distribution of quality of life for the Studied Individuals diagnosed with fibromyalgia (social activities and pain)

Social activities subscale	N (%)
How much has your emotional or physical health disrupted with your regular interactions with friends, family members, neighbors, or social circles over the last four weeks?	
Not at all (5)	0
A little (4)	0
Fairly (3)	19(38%)
A quit bit (2)	21(42%)
Highly (1)	10(20%)
Pain subscales	
To what extent has pain disrupted your regular work (including housework and work outside the home) over the last four weeks?	
Not at all (5)	0
Slightly (4)	0
Moderately (3)	13(26%)
Somewhat (2)	30(60%)
Significantly (1)	7(14%)
How much physical pain did you have in the last four weeks?	
Non (6)	0
Extremely slight (5)	0
Slight (4)	0
Intermediate (3)	12(24%)
Intense (2)	19(38%)
Highly intense (1)	19(38%)
Total score Mean ± SD Range (min: max)	2.8±1.3 1:6

Table (10) Distribution of quality of life for the Studied Patients with fibromyalgia (energy and emotion).

Energy and emotional wellbeing subscales	Constantly (1) N (%)	Majority of the time (2) N (%)	Quite often (3) N (%)	Some of the time (4) N (%)	A little of the time (5) N (%)	None of the time (6) N (%)
Were you experiencing energized?	0	0	0	4(8%)	18(36%)	28(56%)
Have you ever been extremely anxious?	0	9(18%)	25(50%)	0	7(14%)	9(18%)
Have you ever been so depressed that nothing could lift your spirits?	13(26%)	6(12%)	7(14%)	19(38%)	5(10%)	0
Have you experienced serenity and calm?	0	0	6(12%)	13(26%)	31(62%)	0
Did you possess a lot of vigor?	0	0	0	6(12%)	18(36%)	26(52%)
Have you experienced sadness or depression?	0	7(14%)	19(38%)	6(12%)	11(22%)	4(8%)
Did you feel exhausted?	25(50%)	14(28%)	11(22%)	0	0	0
Have you been content in your life?	0	0	5(10%)	6(12%)	32(64%)	7(14%)
Were you feeling worn out?	25(50%)	19(38%)	6(12%)	0	0	0
Total score Mean ± SD Range (min: max)	33.6 ±1.3 30:37					

_# The code is reversed for this item to become 1 for non-of the time and 6 for all of the time

Table (11) Distribution of quality of life for the Studied Patients with fibromyalgia (general health).

General health subscale	Definitely true (1) N(%)	Mostly true (2) N(%)	Don't know(3) N(%)	Mostly false(4) N(%)	Definitely false(5) N(%)
I appear to be more susceptible to illness than most people.	14(28%)	12(24%)	19(38%)	5(10%)	0 0%
I am in the best health of anyone I know, yet I anticipate getting sicker.	7(14%)	0	6(12%)	5(10%)	32 (64%)
I'm in great health	7(14%)	26(52%)	12(24%)	5(10%)	0
My health is excellent #	0	0	0	6(12%)	44 (88%)
	Outstanding (1) N(%)	Exceptional (2) N(%)	Satisfactory (3) N(%)	Average (4) N(%)	Subpar (5) N(%)
What would you say your overall health is?	0(0%)	0(0%)	0(0%)	6(12%)	44(88%)
Total score Mean ± SD Range (min: max)	7.6±2.1 5:12				

_# The code is reversed for this item to become 1 for definitely false and 6 for definitely true

Table (12) Relationship between different age groups, total disability score and total quality of life score.

	Age		P value
	Aged 31-40	**Aged 41-50**	
Total disabilities score			
Mean ± SD	85±8.2	86.5±2.5	0.48
Range (min: max)	65:96	81:88	
Total quality of life score			
Mean ± SD	67.3±7.5	66±0	
Range (min: max)	56:84	66:66	

Table (13) Relationship between sex, total disability score and total quality of life score.

	Sex		P value
	Male	**Female**	
Total disabilities score			
Mean ± SD	75.8±6.9	87.8±4.3	<0.001*
Range (min: max)	65:84	81:96	
Total quality of life score			
Mean ± SD	74.1 ±8.3	65.2 ±3.8	0.01*
Range (min: max)	63:84	56:71	

Table (14) Relationship between occupation, total disability score and total quality of life score.

	Occupation		P value
	Employed	**Not employed**	
Total disabilities score			
Mean ± SD	80.2±7.8	88±4.5	0.001*
Range (min: max)	65:90	81:96	
Total quality of life score			
Mean ± SD	71.5±7.3	64.8±3.8	0.004*
Range (min: max)	63:84	56:71	

Table (15) Relationship between marital status, total disability score and total quality of life score.

	Marital statues		P value
	Single	**Married**	
Total disabilities score			
Mean ± SD	78.3±7.5	88±4.4	<0.001*
Range (min: max)	65:87	81:96	
Total quality of life score			
Mean ± SD	71.8±8.2	65.2±4	0.01*
Range (min: max)	63:84	56:71	

Table (16) Relationship between educational level, total disability score and total quality of life score.

	Education Level		P value
	Learned	**Not learned**	
Total disabilities score			
Mean ± SD	84±9.2	88.8±3.9	0.17
Range (min: max)	65:96	81:96	
Total quality of life score			
Mean ± SD	70.7±6.3	64±3.5	<0.001*
Range (min: max)	63:84	56:66	

Table (17) Relationship between income level, total disability score and total quality of life score.

	Income		P value
	Enough	**Not enough**	
Total disabilities score			
Mean ± SD	77±7.3	88±4.4	<0.001*
Range(min:max)	65:87	81:96	
Total quality of life score			
Mean ± SD	73±8.5	65.2±3.9	0.02*
Range(min:max)	63:84	56:71	

Table (18) Relationship between residence level, total disability score and total quality of life score.

	Residence		P value
	Urban	**Rural**	
Total disabilities score			
Mean ± SD	74.8±6.6	87.7±4.3	<0.001*
Range (min: max)	65:82	81:96	
Total quality of life score			
Mean ± SD	75±8.4	65.2±3.8	0.01*
Range (min: max)	63:84	56:71	

Table (19) Relationship between family history, total disability score and total quality of life score .

	Family history		P value
	Positive	**Negative**	
Total disabilities score			
Mean ± SD	72.5±5.8	87.5±4.4	<0.001*
Range (min: max)	65:78	81:96	
Total quality of life score			
Mean ± SD	78.6±5.8	65.2±3.7	0.002*
Range (min: max)	68:84	56:71	

Table (20) Relationship between date of onset of disease, total disability score and total quality of life score.

	Date of onset of disease			P value
	Less than 5 years	**Between 5 and 10 years**	**More than 10 years**	
Total disabilities score				
Mean ± SD	84±2.8	85.6±9.1	88±0	0.35
Range (min: max)	81:88	65:96	88:88	
Total quality of life score				
Mean ± SD	69.7±6.3	66±0	62.2±4.5	0.001*
Range (min: max)	62:84	66:66	56:66	

Table (21) relationship between total disability score and total quality of life score, as well as its subscales.

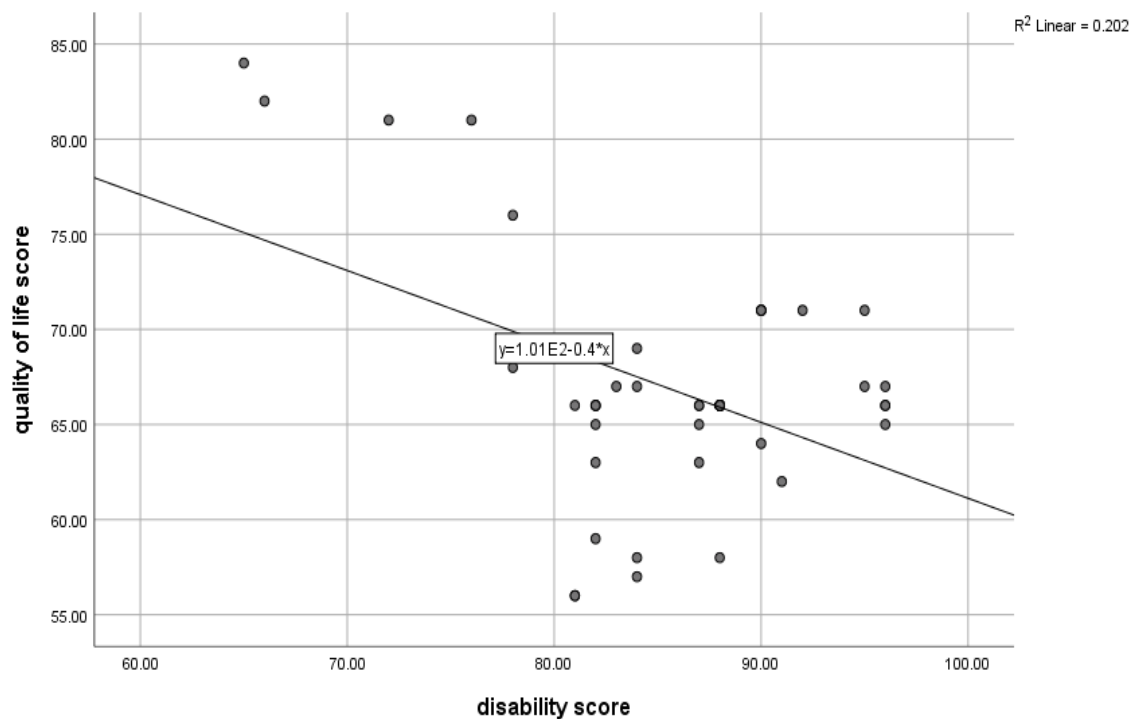|	**Correlation**	Total disabilities score	
		R	P value
	Total quality of life score	-0.44	0.001*
Quality of life subscales	**Physical function subscales**	-0.72	<0.001*
	Limitation in role functioning due to emotional problem	-0.44	0.001*
	Role limitation due to physical health	-0.59	<0.001*
	Social and pain subscales	-0.38	0.006*
	Energy and emotional well-being subscales	-0.18	0.20
	General health subscale	-0.43	0.002*

Figure (1): scatter plot represent relationship between quality of life and total disability score.

Discussion:

Fibromyalgia is viewed as a blend of physical, psychological, and social impairments. While the exact pathological mechanisms remain unclear, fibromyalgia is associated with a potential decline in quality of life **(Matarán-Peñarrocha et al., 2011).** The objective of this study was to evaluate how fibromyalgia impacts the quality of life and disability.

According to the continuing study, about two-thirds of the study participants fell within the age range of 31 to 41. This finding was similar to one obtained by **(Yang et al., 2023)** who said that the average age of participants spanned from 36 to 59.3 years. Furthermore, most of the responses were women and three-quarters of them were married. These results are consistent with **(Lee et al., 2017)**, who said that 89.6% were women and 81.3% of the

patients were married. More than half of the studied patients were learned. These findings contradicted those of **(Lorena et al., 2016)** who said that 48.9% of participants had incomplete basic education.

Majority of the study group hadn't family history of fibromyalgia disease. These results are consistent with those of **(López-Muñoz et al., 2023)**, who found that 77.1 % of fibromyalgia patients hadn't family history of fibromyalgia disease.

More than three quarters of studied subjects occasionally did shopping. The majority of studied subjects occasionally visited friends and relatives. Most studied patients never did yard work. Majority of the studied patients never drive car. Most patients in the current study felt severe tired, anxious and suffered from severe pain. Similar observations were made by **(Lorena et al., 2016)** who noted that the

majority of patients (80%) reported not engaging in any physical activity. They also found that females with fibromyalgia experienced a negative impact on their quality of life, including decreased functional capacity, heightened pain, and a decline in overall health status.

Approximately two-thirds of the patients under study reported that pain interfered with their regular work, encompassing both work outside the home and household chores. Majority of the patients reported that their general health was poor. These findings matched those of **(Pagano et al., 2004)** who observed that the test group exhibited a poorer quality of life compared to the control group. This was evidenced by both assessment instruments used to measure quality of life (FIQ and SF-36).

This study identified statistically significant correlations between total disability levels, and overall fibromyalgia patient quality of life. These findings were similar to one obtained by **(Assumpção et al., 2010)** who found that Significant differences (p<0.05) were observed between the control group (CG) and fibromyalgia group (FG) for all variables assessed by the Fibromyalgia Impact Questionnaire (FIQ) and the 36-item Short Form Health Survey (SF-36) in both groups.

Conclusions:

Fibromyalgia disease had negative impact on the patients' quality of life and disability level. Additionally, there were statistically significant correlation between total disability levels, and overall fibromyalgia patient quality of life according to this study.

Recommendations:

Based on the recent study's findings, the following recommendations are proposed:
1. Implement the development of an educational program aimed at enhancing the quality of life for individuals with fibromyalgia.
2. Replicate the study in different areas to generate the study results.

References:

Antunes M D., Schmitt A C B., & Marques A P., (2022): Amigos de Fibro (Fibro Friends): development of an educational program for the health promotion of fibromyalgia patients, Int. J. Environ. Res. Public Health; 1 :(9),5297.

Assumpção A., Pagano T., Matsutani L A., Ferreira1 E A G., Pereira C A B., & Marques A P., (2010): Quality of life and discriminating power of two questionnaires in fibromyalgia patients: Fibromyalgia Impact Questionnaire and Medical Outcomes Study 36-Item Short-Form Health Survey, Rev Bras Fisioter;14(4):284-9.

D'Agnelli S., Arendt-Nielsen L., Gerra M.C., Zatorri K., Boggiani L., Boggiani L., Baciarello M., & Bignami E., (2019): Fibromyalgia: Genetics and epigenetics insights may provide the basis for the development of diagnostic biomarkers, MolecularPain;15:1–12.

Favero G., Trapletti V., Bonomini F., Stacchiotti A., Lavazza A., Rodella L F., & Rezzani R., (2017): Oral Supplementation of Melatonin Protects against Fibromyalgia-Related Skeletal Muscle Alterations in Reserpine-Induced Myalgia Rats, Int. J. Mol. Sci; 18(7):1389.

García-Perea E., Pedraz-Marcos A., Martínez-Rodríguez S H., Otones-

Reyes P & Palmar-Santos A M., (2021): Effectiveness of a Fibromyalgia Online Nursing Consultation in the Quality of Life: A Randomized Controlled Trial, Pain Management Nursing ;23:478–486.

Horta-Baas G., & Romero-Figueroa M S., (2019): Self-reported disability in women with fibromyalgia from a tertiary care center, Advances in Rheumatology; 59: 45.

John A W., Aebischer J H., Friend R., & Jones KD., (2022): Fibromyalgia: A clinical update, Nurse Pract1;47(4):20-30.

Lee J., Lee K., Park D., Kim S., Nah S., Lee J., Kim S., Lee Y., Hong S., Kim H., Joung C., Kim S., & Lee S., (2017): Determinants of quality of life in patients with fibromyalgia: A structural equation modeling approach, PLoS One; 3;12(2): e0171186.

Littlejohn G., & Guymer E., (2018): Neurogenic inflammation in fibromyalgia, Seminars in Immunopathology: 40:291–300.

López-Muñoz S., Gracia-Vesga M A., Gracia-Sánchez A., Zúnica-Garcia S., Gijón-Nogueron G., & Chicharro-Luna E., (2023): Impact of fibromyalgia and related factors on foot function and quality of life: Cross-sectional study, Foot and Ankle Surgery;29(8):627-632.

Lorena S B., Pimentel E D S., Fernandes V M., Pedrosa M B., Ranzolin A., & Duarte A L B P., (2016): Evaluation of pain and quality of life of fibromyalgia patients, Rev Dor. São Paulo;17(1):8-11

Matarán-Peñarrocha G A., Castro-Sánchez A M., García G C., Moreno-Lorenzo C., Carreño T P., &Zafra M D O., (2011): Influence of craniosacral therapy on anxiety, depression and quality of life in patients with fibromyalgia, Evid Based Complement Alternat Med;9:178769.

Pagano T., Matsutani L A., Ferreira E A G.,Marques A P.,& Pereira C A B.,(2004): Assessment of anxiety and quality of life in fibromyalgia patients, Sao Paulo Med J;122(6):252-8.

Siracusa R., Paola R D., Cuzzocrea S., &Impellizzeri D., (2021): Fibromyalgia: Pathogenesis, Mechanisms, Diagnosis and Treatment Options Update, Int. J. Mol. Sci; 22(8):3891.

Wasti A Z., Mackawy AMH., Hussain A., &Huq M., (2023): Fibromyalgia interventions, obstacles and prospects: narrative review, Acta Myol;42:71-81.

Yang C C., Tsai S T., Ting B., Cheng Y C., Wang C K., Chang J P C., & Su K P., (2023): Psychological Outcomes and Quality of Life of Fibromyalgia Patients with Vitamin D Supplementation—A Meta-Analysis, J. Clin. Med;12(7):2750.