

## Special Article - Depression Disorders &amp; Treatment

# Psychiatric and Personality Disorder Survey of Patients with Fibromyalgia

Tommy Fu, Hilary Gamble, Umar Siddiqui and Thomas L. Schwartz\*

Department of Psychiatry, SUNY Upstate Medical University, USA

\*Corresponding author: Thomas Schwartz, Department of Psychiatry, SUNY Upstate Medical University, 750 E. Adams Street, Syracuse, NY 13210, USA

Received: August 19, 2015; Accepted: September 21, 2015; Published: September 25, 2015

## Abstract

**Objective:** The impact of comorbid rheumatologic disease and psychiatric illness has been investigated previously and shows an overall negative impact on patients' quality of life, function, and mortality. In particular, fibromyalgia (FM) has a close relationship with concurrent diagnoses of psychiatric disorders. To our knowledge, there have been only a handful of studies that relate FM to psychiatric disorders, one that investigates personality traits, and one that directly examines personality disorders. This survey examined the prevalence of personality and other psychiatric disorders in fibromyalgia patients.

**Methods:** The study sample consisted of 48 subjects who were diagnosed with fibromyalgia by the 1990 American College of Rheumatology criteria. Psychiatric disorder criteria were specified by means of PDSQ (Psychiatric Diagnostic Screening Questionnaire) and PDQ-4 (Personality Diagnostic Questionnaire).

**Results:** Forty-one (85.4%) patients with fibromyalgia had a non-personality psychiatric disorder. The most common disorders were somatic disorder (75.0%) and dysthymic disorder (54.2%). Twenty-nine patients had a mood disorder (60.4%), much higher than the average population (22.9%). Twenty-seven (56.3%) patients presented with a personality disorder. Avoidant personality disorder (27.1%) was the most common, followed by depressive personality disorder (25.0%).

**Conclusion:** Mood disorders occur at a higher prevalence in fibromyalgia patients than in the general population. Psychiatric and personality disorders are very common in patients with fibromyalgia.

**Keywords:** Fibromyalgia; Psychiatric; Personality; Disorder; Comorbid

## Abbreviations

FM: Fibromyalgia; TMJ: Temporomandibular Joint Disorder; CFS: Chronic Fatigue Syndrome; IBS: Irritable Bowel Syndrome; DSM: Diagnostic and Statistical Manual of Mental Disorders; MDD: Major Depressive Disorder; GAD: Generalized Anxiety Disorder; OCD: Obsessive Compulsive Disorder; PTSD: Post-Traumatic Stress Disorder; PDSQ: Psychiatric Diagnostic Screening Questionnaire; PDQ-4: Personality Diagnostic Questionnaire

## Introduction

In the last 40 years, the central pain syndromes have been the subject of much research and controversy. In particular, fibromyalgia (FM) has been particularly difficult to diagnose and treat. The 1990 diagnostic criteria established by the American College of Rheumatology identifies fibromyalgia as widespread pain on palpation in 11 of 18 predesignated areas for a duration of 3 months or longer [1]. Newer and updated versions of these criteria continue to be modified and developed to aid in making the FM diagnosis.

Current data suggest the prevalence of FM to be 2-5% in the United States adult population, a number which is consistent across other Western populations [2]. After osteoarthritis, it is the second most common rheumatologic disorder. The 1990 diagnostic criteria estimate a female to male ratio of 7:1 [3].

While chronic widespread pain is the main symptom associated with FM [4], patients also commonly experience fatigue, nonrestorative sleep, cognitive dysfunction, and mood disorders [5]. Associated co-morbidities of fibromyalgia include: headaches, dysmenorrhea, Temporomandibular Joint disorder (TMJ), Chronic Fatigue Syndrome (CFS), Irritable Bowel Syndrome (IBS), painful bladder syndrome, endometriosis, and other regional pain syndromes.

Psychological, behavioral, and social issues have also been shown to affect the pathogenesis of fibromyalgia and complicate its treatment. Patients with fibromyalgia are more likely to have traditional DSM-IVTR Axis I psychiatric disorders including Major Depressive Disorder (MDD), Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder (OCD), and Post-Traumatic Stress Disorder (PTSD) [3]. Lifetime prevalence of anxiety disorders in patients with FM is 35-62%, 58-86% for MDD, and 11% for bipolar disorder. This has been postulated to be due to the pathophysiologic abnormalities and neurotransmitters common to both psychiatric disorders and FM [1]. A study showed the rate of any personality disorder in fibromyalgia to be 31.1%, compared to 13.3% in control subjects. Obsessive-compulsive and avoidant personality disorders were significantly more common in the FM patient case group compared to the control group [6].

The purpose of this chart review survey was to further study the

**Table 1:** Psychiatric disorders in fibromyalgia patients.

Disorder	Number of Patients (%) N = 48
Any non-personality psychiatric disorder	41 (85.4)
Any anxiety disorder	33 (68.8)
Any mood disorder	29 (60.4)
Any personality disorder	27 (56.3)

**Table 2:** Psychiatric (non-personality disorder) diagnoses in fibromyalgia patients.

Diagnosis	Number of Patients (%) N = 48
Somatization Disorder	36 (75.0)
Dysthymic Disorder	26 (54.2)
Posttraumatic Stress Disorder	22 (45.8)
Major Depressive Disorder	21 (43.8)
Social Phobia	18 (37.5)
Generalized Anxiety Disorder	17 (35.4)
Obsessive-Compulsive Disorder	15 (31.3)
Psychotic Disorder	11 (22.9)
Panic Disorder	10 (20.8)
Bulimia Nervosa	9 (18.8)
Specific Phobic Avoidance	6 (12.5)
Drug Abuse or Dependence	3 (6.3)
Alcohol Abuse or Dependence	3 (6.3)
Mania	1 (2.1)
Hypochondriasis	1 (2.1)

prevalence of psychiatric disorders in fibromyalgia. The development of comorbidity data should be used to help guide a multi-disciplinary approach to treating FM by rheumatologists, psychiatrists, and primary care providers alike (Table 1).

## Methods

The survey included 49 patients who were recruited by mailing, or handing out surveys in an outpatient rheumatology office. Data from one subject was not analyzable as the survey packet had incomplete answers or information. FM was diagnosed according to American College of Rheumatology 1990 criteria for the classification of fibromyalgia [7]. Written informed consent was obtained from all the participants, and the survey was approved by our local Institutional Review Board. Psychiatric diagnoses were ascertained by means of the subjects completing self report questionnaires, the PDSQ (Psychiatric Diagnostic Screening Questionnaire), and PDQ-4 (Personality Diagnostic Questionnaire) [8,9] (Table 2).

## Results

The gender makeup of the respondents was 46 female and 2 male, with an average age of 49.3 years. The average duration of FM was 91.8 months. Forty-one (85.4%) patients with fibromyalgia had a non-personality disorder psychiatric diagnosis. The concurrent rate of any mood disorder was 60.4% and 68.8% for any anxiety disorder. The most common disorders were somatic disorder (75.0%) and dysthymic disorder (54.2%).

**Table 3:** Personality disorder diagnoses in fibromyalgia patients.

Personality Disorder Diagnosis	Number of Patients (%) N = 48
Avoidant	13 (27.1)
Depressive	12 (25.0)
Paranoid	11 (22.9)
Obsessive-compulsive	10 (20.8)
Negativistic	10 (20.8)
Schizoid	8 (16.7)
Borderline	8 (16.7)
Schizotypal	6 (12.5)
Dependent	3 (6.3)
Histrionic	2 (4.2)
Antisocial	2 (4.2)
Narcissistic	1 (2.1)

Twenty-seven (56.3%) patients presented with a personality disorder. Avoidant personality disorder (27.1%) was the most common followed by depressive personality disorder (25.0%) (Table 3).

## Conclusion

In our patient sample, 85.4% of patients had a coexisting non-personality disorder psychiatric diagnosis and 56.3% of patients had a coexisting personality disorder. According to the National Institute of Mental Health, the lifetime prevalence of any mood disorder in people age 45-59 is 22.9%, as opposed to our finding of 60.4% in the FM population [10]. Most striking is the discrepancy between the prevalence of dysthymic disorder in the general population and that in our patient population, namely 3.7% (ages 45-59) compared to 54.2% in our FM sample [10]. These large discrepancies suggest the need for further exploration, and ideally, mutually beneficial treatment strategies may be studied in an outcome based manner. Further studies will be necessary in order to explore the hypothesis that treating concurrent psychiatric disorders with the standard psychotropic medications and psychotherapy should provide benefit to patients who suffer from FM comorbid with psychiatric disorder.

Theoretically, there should be overlap between symptoms experienced by FM and psychiatric disorder patients, and given this; there may be overlap in treatment responses. These types of outcome studies warrant future investigation. In any case, it is becoming increasingly evident that fibromyalgia is not solely a pain disorder. Psychiatric comorbidities are just one facet of a complicated disease process. Ideally, understanding the relationship between fibromyalgia and other disorders should benefit patient outcomes as providers learn to better recognize and treat the effects of the disease.

## References

1. Arnold LM, Clauw DJ, McCarberg BH. FibroCollaborative. Improving the recognition and diagnosis of fibromyalgia. *Mayo Clin Proc.* 2011; 86: 457-464.
2. Arnold LM, Clauw DJ, Dunegan LJ, Turk DC. Fibro Collaborative. A framework for fibromyalgia management for primary care providers. *Mayo Clin Proc.* 2012; 87: 488-496.
3. Clauw DJ. Fibromyalgia: a clinical review. *JAMA.* 2014; 311: 1547-1555.

4. White KP, Nielson WR, Harth M, Ostbye T, Speechley M. Chronic widespread musculoskeletal pain with or without fibromyalgia: Psychological distress in a representative community adult sample. *Journal of Rheumatology*. 2002; 29: 588-594.
5. Fitzcharles MA, Ste-Marie PA, Pereira JX. Canadian Fibromyalgia Guidelines Committee. Fibromyalgia: evolving concepts over the past 2 decades. *CMAJ*. 2013; 185: E645-651.
6. Uguz F, CiÅşek E, Salli A, Karahan AY, Albayrak I, Kaya N, et al. Axis I and Axis II psychiatric disorders in patients with fibromyalgia. *Gen Hosp Psychiatry*. 2010; 32: 105-107.
7. Wolfe F, Smythe HA, Yunus MB, Bennett RM, Bombardier C, Goldenberg DL, et al. The American College of Rheumatology 1990 Criteria for the Classification of Fibromyalgia. Report of the Multicenter Criteria Committee. *Arthritis Rheum*. 1990; 33: 160-172.
8. Zimmerman M, Mattia JI. The reliability and validity of a screening Questionnaire for 13 DSM-IV Axis I disorders (the Psychiatric Diagnostic Screening Questionnaire) in psychiatric outpatients. *Journal of Clinical Psychiatry*. 1999; 60: 677-683.
9. Abdin E, Koh KG, Subramaniam M, Guo ME, Leo T, Teo C, et al. Validity of the Personality Diagnostic Questionnaire-4 (PDQ-4+) among mentally ill prison inmates in Singapore. *J Pers Disord*. 2011; 25: 834-841.
10. Dubchak I, Poliakov A, Kislyuk A, Brudno M. Multiple whole-genome alignments without a reference organism. *Genome Res*. 2009; 19: 682-689.