



Prevalence and Incidence of Patients With Fibromyalgia in Catalonia Between 2010 and 2017: A Descriptive Observational Study

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Abstract

Objective: To measure the prevalence and cumulative incidence of individuals diagnosed with fibromyalgia (FM) in Catalonia between 2010 and 2017. **Methods:** A retrospective observational study of the population of Catalonia between 2010 and 2017, both included, was designed to describe the incidence, prevalence, and sociodemographic characteristics of individuals diagnosed with fibromyalgia. A total of 56 098 patients were included in the study. The scope of the study were the 283 Primary Care Teams (PCT), all managed by the Instituto Catalán de la Salud [Catalan Institute of Health] (ICS). **Results:** The diagnosis of FM is higher in females (95.4%) than males (4.55%), with a mean age of 53.0 [45.0–61.0] years. The prevalence of FM in the total population was 0.4% in 2010 and 1.4% in 2017. The highest prevalence was found in the 55 to 65 age group (1.05% in 2010, and 2.46% in 2017). A relationship was found between the prevalence of FM and the degree of socioeconomic deprivation in urban areas: the greater the deprivation, the greater the prevalence of FM. The cumulative incidence of FM in the population remained constant over time (0.11% in 2010 and 0.10% in 2017), being more prevalent in women than men (0.18% women, 0.01% men in 2017). **Conclusions:** Our study confirms that FM is a prevalent disease in Catalonia, with an upward trend in recent years and it is more prevalent in women.

Keywords

fibromyalgia, incidence, prevalence, primary care, sociodemographic data

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Introduction

The World Health Organization (WHO) recognized Fibromyalgia (FM) as a disease in 1992, assigning it the code M79.0 in the International Classification of Diseases manual (ICD-10). FM is a disease with an unknown origin which is characterized by generalized musculoskeletal pain which is usually accompanied by other symptoms¹ such as fatigue,² disturbed sleep patterns, anxiety, depression, and reduced functional capacity.^{3–5} It mainly affects women between the ages of 20 and 55,⁶ and has a significant impact on their daily lives. Its relative prevalence and symptoms represent a significant public health problem in Spain. Prospective follow up studies indicate an unsatisfactory clinical evolution of the disease at 5 to 7 years.⁷

FM's etiopathogenesis is unknown however, it is considered to be multifactorial, and to also include epigenetic factors which lead to a persistent alteration in pain regulation

systems and central nociceptive hyperexcitability, together with a decrease in the modulation of response inhibition activity and pain control.⁸

According to a study by the Spanish Society of Rheumatology (EPISER), it is calculated that in Spain between 2% and 4% of the population suffer from FM,

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0.34% in Catalonia, with greater prevalence among women than men.⁹ It is commonly encountered in clinical practice, representing 5% to 8% of primary care consultations and between 10% and 20% of specialist rheumatology consultations. Direct Primary Care costs for patient/year, broken down into its components (medical visits, referrals to referral specialists, complementary tests, and pharmaceutical prescription) were higher in all cases in the FM group. This may indicate that, despite the uncertainty surrounding FM, we should try to avoid delay in diagnosis for patients, which is both costly and inefficient for the health system.¹⁰ Pain is a common symptom, with double the prevalence in women compared to men, especially in those aged over 40 years.¹¹

FM is recognized as a disease which causes significant morbidity throughout the world. Studies carried out in various countries estimate a prevalence of FM in the general population of between 0.5% and 5%¹²: In the United States the prevalence was found to be 2%, lower in men than in women (0.5% and 3.4% respectively)¹³; Canada 3.3% with a female to male ratio of 3 to 1,¹⁴ Italy 2.2%, Sweden 2.5%, Finland 0.8%, Denmark 0.7%, France 1.4%, and Portugal 3.6%.¹⁵⁻¹⁷

Compared with other rheumatological patients, those affected by FM make greater use of healthcare services, with an average of 9 to 12 consultations per year,¹⁸ make greater use of alternative therapies and incur higher economic costs per patient due to absences from work. In addition, patients with FM undergo a greater number of surgical procedures and exhibit a greater number of other rheumatic diseases, such as rheumatoid arthritis, psoriatic arthritis, and systemic lupus erythematosus, as well as gastrointestinal disorders and arterial hypertension, neuropathic pain, spinal pain, respiratory infections, sleep disturbances, and mood disorders.¹⁹

The aim of this study was to determine the prevalence and distribution of the incidence of individuals diagnosed with fibromyalgia between 2010 and 2017 based on sex, age, and MEDEA deprivation index in Catalonia. Additionally, we wanted to evaluate whether any difference between genders and ages.

Methods

Design and Participants

A retrospective observational study of the population of Catalonia between 2010 and 2017 both included. The scope of study were the 283 primary care teams (PCT) managed by the Catalan Institute of Health (ICS).

Patient data was obtained from the Information System for the Development of Research in Primary Care (SIDIAP) (www.sidiap.org). This clinical database uses data from the primary care service's electronic medical records program

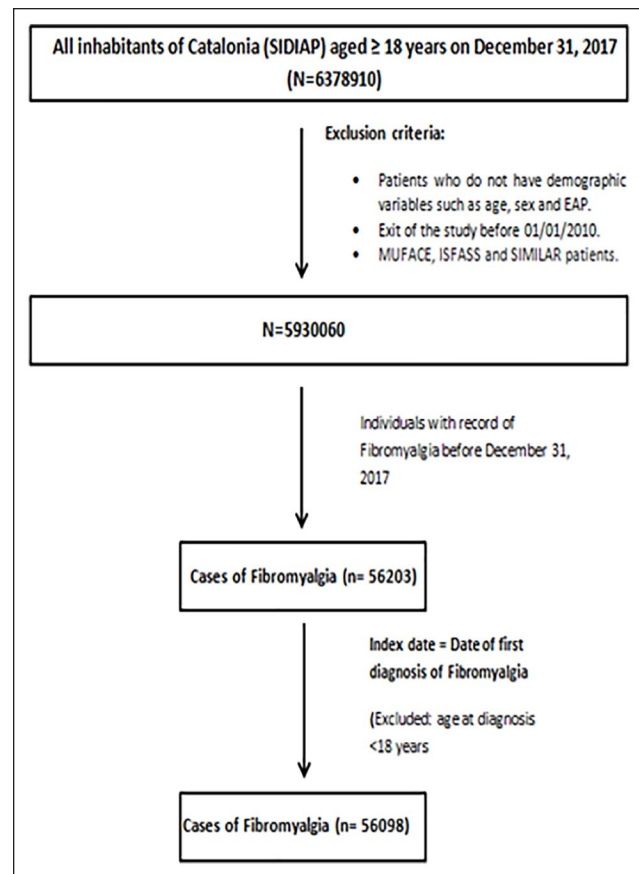


Figure 1. Flowchart of patient selection.

(ECAP) and other complementary data sources which contain individual information on every patient linked to a unique, anonymous identifier.

As can be seen in Figure 1, in Catalonia (an autonomous community in the northeastern corner of Spain) 6378910 individuals (80% of the population) are registered in the SIDIAP data base. This statistic is of special interest since it is not an estimate based on a sample, but rather the actual total of all active diagnoses in Catalonia. The following were excluded from the study: patients who were covered by the Mutualidad General de Funcionarios Civiles del Estado [the General Civil Servants Mutual Fund] (Muface, Isfass, or similar) and those whose demographic variables of age, sex, and PAD were incomplete ($n=5930060$). All individuals ≥ 18 years of age with a diagnosis of FM (code M79.7) according to the International Classification of Diseases (ICD-10) registered in the ECAP electronic medical records program were included in the study (Figure 1).

Data Sources

The demographic variables studied were: sex (female, male), age (≥ 18 - <75 years), deprivation index (MEDEA),

patients at the end of follow up (alive, dead, transferred), tobacco consumption (non-smoker, smoker, former-smoker, unknown), and alcohol risk (no risk, low risk, high risk, unknown).

The MEDEA deprivation index²⁰ was used to measure the participants' socioeconomic level. The index classifies individuals by socioeconomic level according to whether they live in a rural (R) or urban (U) area. In urban areas, the index divides the inhabitants into quartiles where the first (U1) and fifth (U5) quartiles are the least and most disadvantaged areas, respectively.²⁰ Urban areas are considered to be municipalities with more than 10 000 inhabitants and with a population density greater than 150/km².²¹

Statistical Analysis

The data was analyzed and processed with R statistical program, version 3.6.1. The sample was described using absolute frequencies and percentages in the case of categorical variables and with median and quartiles in the case of continuous variables. The cumulative prevalence and incidence of FM diagnosis during 2010 and 2017 were estimated based on sex, age, and the MEDEA deprivation index with a 95% confidence interval. To estimate the annual prevalence, the number of FM cases was divided by the total population for each year. To estimate the annual cumulative incidence, the number of newly diagnosed cases was divided by the number of cases free from FM at the beginning of each year. Finally, a logistic regression model was performed to evaluate the prevalence of FM based on sex, age, year, and sex × age, sex × year interactions. The model results are reported as odds ratio (OR) with a 95% confidence interval

Results

Sample Characteristics

Although 56 203 patients initially met the inclusion criteria, the study was carried out with 56 098 patients diagnosed with FM (Figure 1).

Table 1 shows how the diagnosis of FM is higher in females (95.4%) compared to males (4.55%), with a mean age of 53.0 [45.0-61.0] years. More cases of FM were detected in rural areas (17.3%) than in urban areas where there is an increasing trend depending on the degree of deprivation; the higher the deprivation, the greater the number of cases diagnosed with FM. 12.69% of those affected engage in high risk alcohol consumption, 24.7% are active smokers, and 10.9% are former smokers (Table 1).

FM Prevalence

The study showed an increase in the annual prevalence of FM (Table 2) over the 7-year study period (0.4% (95%

Table 1. Case FM.

	Case FM N= 56 098
Sex	
Female	53 545 (95.4%)
Male	2553 (4.55%)
Age	53.1 [45.0; 61.0]
MEDEA	
Unknown	47 (0.08%)
Rural	9709 (17.3%)
Urban ^a	4331 (7.72%)
U1	7020 (12.5%)
U2	8240 (14.7%)
U3	8939 (15.9%)
U4	9165 (16.3%)
U5	8647 (15.4%)
Patients at follow-up	
Alive	51 602 (92.0%)
Dead	912 (1.63%)
Transferred	3584 (6.39%)
Alcohol risk	
No risk	25 544 (45.5%)
Low risk	6854 (12.2%)
High risk	276 (0.49%)
Unknown	23 424 (41.8%)
Tobacco consumption	
Non-smoker	27 937 (49.8%)
Smoker	13 836 (24.7%)
Former-smoker	6 118 (10.9%)
Unknown	8 207 (14.6%)

^aUnclassified urban zone in quintiles (U1-U5).

CI=(0.39; 0.40)) in 2010 and 1.07% (95% CI=(1.06; 1.08)) in 2017). This increase was present for both men and women (from 0.03% to 0.10% in men compared to an increase from 0.75% to 2% in women), being higher in the latter during the whole study period. The age group between 55 and 65 years old presented the highest prevalence, with 1.05% in 2010, and 2.46% in 2017.

Prevalence was largely similar between rural areas and urban areas. However, a relationship was observed between prevalence and deprivation in urban areas; the greater the deprivation, the greater the prevalence.

Incidence of FM

Compared with the growth in prevalence, the incidence of FM diagnosis in the population remained constant during the period under study (0.11% (95% CI=(0.10; 0.11) in 2010 and 0.10% (95% CI=(0.09; 0.10) in 2017) (Table 3).

FM is more prevalent in the female participants than in male participants and among the population aged 45 to 55 and 55 to 65 years. Nevertheless, in these same age groups, a slight decrease was observed over the study period. No

Table 2. Cases and Prevalence (%) at Overall Population and by Sex, Age, and MEDEA Index.

	2010	2011	2012	2013	2014	2015	2016	2017
Overall	21 817 (0.40)	27 191 (0.50)	31 549 (0.59)	35 920 (0.68)	40 211 (0.77)	43 983 (0.86)	47 404 (0.96)	50 299 (1.07)
95% CI	(0.39, 0.40)	(0.49, 0.51)	(0.58, 0.59)	(0.67, 0.69)	(0.77, 0.78)	(0.85, 0.87)	(0.95, 0.97)	(1.06, 1.08)
Sex								
Female	20 919 (0.75)	26 077 (0.95)	30 230 (1.11)	34 377 (1.28)	38 466 (1.45)	42 060 (1.62)	45 291 (1.80)	48 077 (2.00)
Male	989 (0.03)	1 114 (0.04)	1 319 (0.05)	1 543 (0.06)	1 745 (0.07)	1 923 (0.08)	2 113 (0.09)	2 222 (0.10)
Age								
18-25	110 (0.02)	118 (0.02)	119 (0.02)	123 (0.03)	129 (0.03)	144 (0.03)	149 (0.04)	153 (0.04)
25-35	937 (0.08)	1 060 (0.10)	1 077 (0.11)	1 113 (0.12)	1 109 (0.13)	1 081 (0.13)	1 061 (0.14)	1 014 (0.15)
35-45	3 310 (0.29)	3 896 (0.34)	4 278 (0.37)	4 702 (0.41)	5 004 (0.44)	5 219 (0.47)	5 313 (0.50)	5 323 (0.54)
45-55	6 822 (0.80)	8 312 (0.96)	9 400 (1.07)	10 175 (1.15)	11 062 (1.24)	11 656 (1.29)	12 233 (1.37)	12 611 (1.43)
55-65	7 040 (1.05)	8 881 (1.32)	10 395 (1.54)	11 866 (1.75)	13 291 (1.95)	14 666 (2.13)	15 800 (2.30)	16 674 (2.46)
65-75	2 837 (0.56)	3 809 (0.76)	4 805 (0.94)	6 100 (1.15)	7 396 (1.34)	8 412 (1.54)	9 536 (1.75)	10 758 (1.98)
≥75	761 (0.13)	1 115 (0.18)	1 475 (0.24)	1 841 (0.30)	2 220 (0.37)	2 805 (0.46)	3 312 (0.57)	3 766 (0.69)
MEDEA								
Unknown	31 (0.30)	32 (0.32)	30 (0.34)	32 (0.39)	33 (0.44)	26 (0.39)	25 (0.45)	16 (0.40)
Rural	3 763 (0.40)	4 643 (0.50)	5 442 (0.59)	6 240 (0.68)	6 901 (0.77)	7 560 (0.85)	8 241 (0.94)	8 811 (1.04)
Urban no classificate ^a	1 880 (0.32)	2 277 (0.39)	2 567 (0.47)	2 832 (0.54)	3 048 (0.62)	3 199 (0.70)	3 056 (0.82)	2 687 (1.00)
Urban ^b	18 023 (0.39)	22 516 (0.50)	26 077 (0.59)	29 648 (0.68)	33 277 (0.78)	36 397 (0.87)	39 138 (0.97)	41 472 (1.08)
U1	2 830 (0.34)	3 529 (0.42)	4 131 (0.50)	4 687 (0.57)	5 244 (0.65)	5 680 (0.71)	6 001 (0.78)	6 372 (0.85)
U2	3 231 (0.41)	4 020 (0.52)	4 654 (0.60)	5 343 (0.70)	6 014 (0.79)	6 603 (0.88)	7 171 (0.97)	7 686 (1.06)
U3	3 460 (0.45)	4 355 (0.57)	5 048 (0.66)	5 742 (0.76)	6 464 (0.87)	7 083 (0.96)	7 728 (1.06)	8 324 (1.16)
U4	3 519 (0.46)	4 423 (0.58)	5 131 (0.68)	5 836 (0.78)	6 568 (0.88)	7 209 (0.98)	7 872 (1.09)	8 448 (1.20)
U5	3 103 (0.41)	3 912 (0.52)	4 546 (0.61)	5 208 (0.71)	5 939 (0.81)	6 623 (0.92)	7 310 (1.04)	7 955 (1.16)

^aUnclassified urban zone in quintiles (U1-U5).

^bSum of all urban categories (U1 least deprived-U5 most deprived).

Table 3. New Cases and Cumulative Incidence (%) for Total Population and by Sex, Age, and MEDEA Index.

	2010	2011	2012	2013	2014	2015	2016	2017
Total	6 042 (0.11)	4 857 (0.09)	4 561 (0.09)	4 811 (0.09)	4 446 (0.09)	4 342 (0.09)	4 143 (0.08)	4 526 (0.10)
95% CI	(0.10, 0.11)	(0.08, 0.09)	(0.08, 0.09)	(0.09, 0.09)	(0.08, 0.09)	(0.08, 0.09)	(0.08, 0.09)	(0.09, 0.10)
Sex								
Female	5 787 (0.21)	4 658 (0.17)	4 327 (0.16)	4 571 (0.17)	4 244 (0.16)	4 114 (0.16)	3 917 (0.16)	4 302 (0.18)
Male	255 (0.01)	199 (0.01)	234 (0.01)	240 (0.01)	202 (0.01)	228 (0.01)	226 (0.01)	224 (0.01)
Age								
18-25	40 (0.01)	38 (0.01)	33 (0.01)	33 (0.01)	27 (0.01)	34 (0.01)	28 (0.01)	23 (0.01)
25-35	326 (0.03)	263 (0.02)	224 (0.02)	269 (0.03)	204 (0.02)	218 (0.03)	200 (0.03)	222 (0.03)
35-45	992 (0.09)	873 (0.08)	827 (0.07)	854 (0.07)	811 (0.07)	851 (0.08)	765 (0.07)	822 (0.08)
45-55	2 012 (0.24)	1 627 (0.19)	1 492 (0.17)	1 538 (0.17)	1 480 (0.17)	1 419 (0.16)	1 449 (0.16)	1 518 (0.17)
55-65	1 820 (0.27)	1 368 (0.21)	1 289 (0.19)	1 336 (0.20)	1 150 (0.17)	1 130 (0.17)	1 072 (0.16)	1 185 (0.18)
65-75	670 (0.13)	530 (0.11)	542 (0.11)	603 (0.12)	607 (0.11)	504 (0.09)	481 (0.09)	560 (0.10)
≥75	182 (0.03)	158 (0.03)	154 (0.03)	178 (0.03)	167 (0.03)	186 (0.03)	148 (0.03)	196 (0.03)
MEDEA								
Unknown	8 (0.08)	0 (0.00)	3 (0.03)	4 (0.0)	3 (0.04)	2 (0.03)	3 (0.05)	2 (0.04)
Rural	1 033 (0.11)	832 (0.09)	801 (0.09)	822 (0.09)	729 (0.08)	739 (0.08)	752 (0.09)	836 (0.10)
Urban not classified ^a	492 (0.08)	391 (0.07)	348 (0.06)	348 (0.07)	328 (0.07)	310 (0.07)	270 (0.07)	256 (0.08)
Urban ^b	5 001 (0.11)	4 025 (0.09)	3 757 (0.08)	3 985 (0.09)	3 714 (0.09)	3 601 (0.09)	3 388 (0.08)	3 688 (0.09)
U1	766 (0.09)	638 (0.08)	595 (0.07)	607 (0.07)	554 (0.07)	476 (0.06)	461 (0.06)	510 (0.07)
U2	909 (0.12)	696 (0.09)	677 (0.09)	739 (0.10)	664 (0.09)	642 (0.09)	568 (0.08)	644 (0.09)
U3	965 (0.13)	791 (0.10)	711 (0.09)	780 (0.10)	703 (0.09)	704 (0.10)	647 (0.09)	721 (0.10)
U4	992 (0.13)	806 (0.11)	731 (0.10)	766 (0.10)	736 (0.10)	729 (0.10)	707 (0.10)	740 (0.10)
U5	877 (0.11)	703 (0.09)	695 (0.09)	745 (0.10)	729 (0.10)	740 (0.10)	735 (0.11)	817 (0.12)

Abbreviations: CI, confidence interval.

^aUnclassified urban zone in quintiles (U1-U5).

^bSum of all urban categories (U1 least deprived-U5 most deprived).

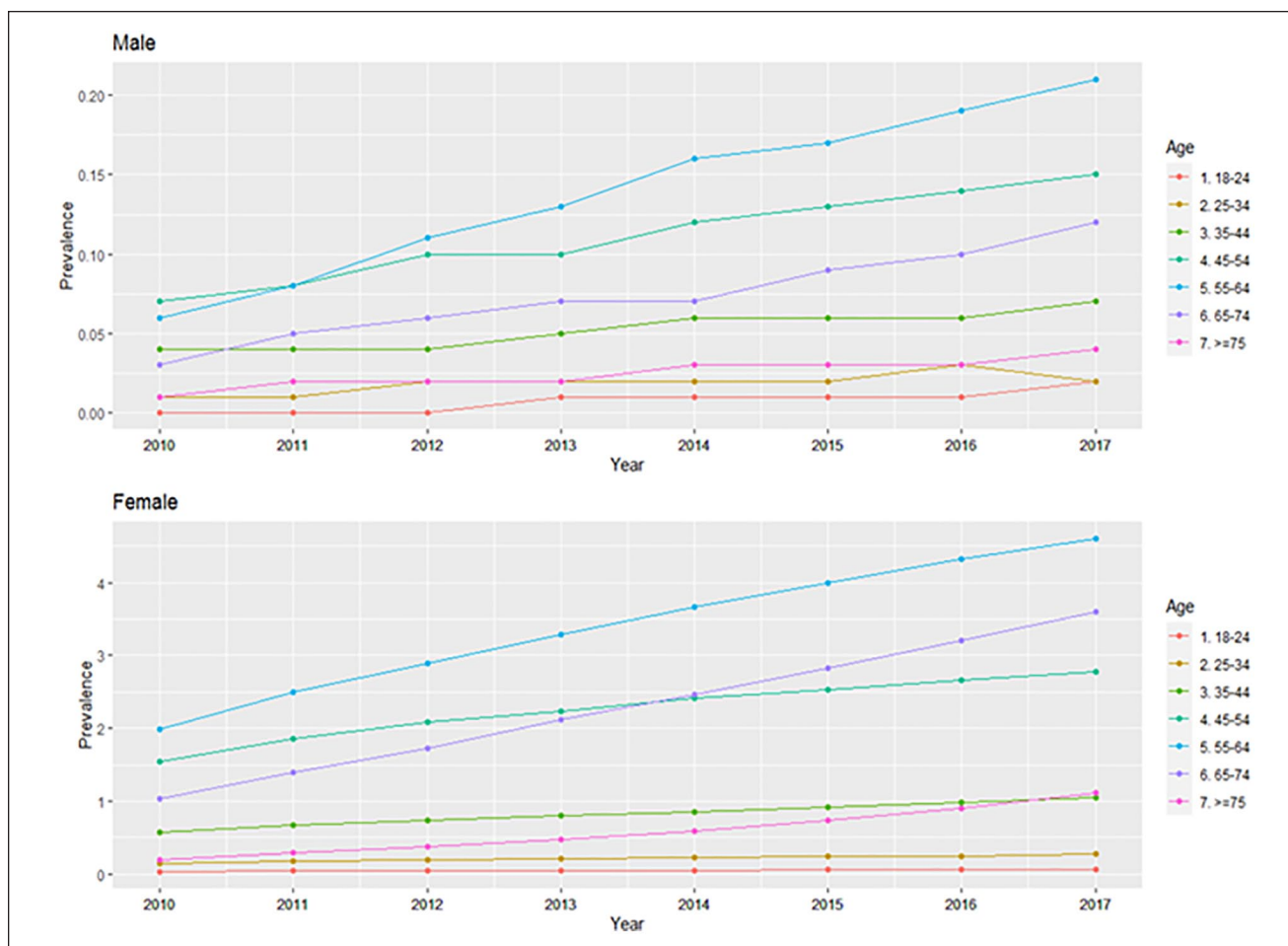


Figure 2. Prevalence during the study period based on age separating by sex.

significant differences were observed in the incidence of FM according to the MEDEA socioeconomic index.

Age Versus Year Pattern Between Genders

We analyzed the evolution of prevalence during the study period based on age separating by sex (Figure 2). In addition, we adjusted a logistic regression model to fitted the prevalence of FM based on sex, age, year, and interactions of sex \times age and sex \times year (Table 4).

A significant effect of sex was observed with an OR < 0.01 , 95% CI=(0.00; 0.00). A significant effect of age was observed; with respect to individuals aged 18 to 24 years, all categories have an OR greater than 1, especially individuals between 45 and 74 years, and a significant effect of the year was observed with an OR=1.12 (95% CI=(1.12; 1.12)) (Table 4).

The interaction between sex and age was significant for all age categories, that is, the behavior of FM prevalence in different age groups varies by gender. The interaction

between sex and year has also been significant, that is, the evolution of the prevalence over the period analyzed has been different depending on sex (OR=1.01, 95% CI=(1.01; 1.02)) (Table 4).

Discussion

Summary

FM is the rheumatic disease which most effects the quality of life of patients since they report a significant impact on their physical and intellectual capacity, personal relationships etc.²² In the majority of cases patients are unable to work and perceive their health to be poor. A diagnosis may not be made until many years after the initial onset of symptoms FM is a chronic disease which affects the functional capacity of patients to such an extent that they may be unable to carry out some of their usual daily activities.²³ It is a prevalent disease and our work corroborates many of the points that have been shown in other epidemiological

Table 4. Logistic Regression Model Prevalence.

	OR	95% CI
Sex		
Female	1	—
Male	<0.001	(0.00; 0.00)
Age		
18-24	1	—
25-34	4.41	(4.12; 4.74)
35-44	16.57	(15.51; 17.72)
45-54	46.05	(43.13; 49.23)
55-64	70.21	(65.77; 75.05)
65-74	46.97	(43.98; 50.22)
≥75	11.66	(10.91; 12.49)
Year	1.12	(1.12; 1.12)
Sex × Age		
Male × 18-24	1	—
Male × 25-34	0.51	(0.43; 0.62)
Male × 35-44	0.37	(0.31; 0.44)
Male × 45-54	0.28	(0.21; 0.33)
Male × 55-64	0.23	(0.19; 0.27)
Male × 65-74	0.18	(0.15; 0.21)
Male × ≥75	0.24	(0.20; 0.29)
Sex × Year		
Male × Year	1.01	(1.01; 1.02)

studies, such the wider prevalence in women and the growing trend of cases diagnosed at all ages.

Strengths and Limitations

Some of FM's symptoms can be confused with those of other rheumatic diseases and this, in turn, can lead to incorrect coding of the diagnosis of FM. We propose to increase diagnostic adequacy by referring patients to specialized FM units to confirm the diagnosis. This study cannot be extrapolated to other countries since it has been conducted in a region of Spain.

Following a literature review, we were unable to find similar studies which have been carried out in Catalonia with the same sample size in order to carry out a comparison. However, in general the results are in consonance with studies conducted in other countries. The EPISER study on rheumatic diseases²⁴ establishes a prevalence of FM in Spain of 2.4%, with a higher prevalence in females than males and an upward trend over time. These results largely coincide with those in our study: in 2010 the prevalence was 0.75% in women and 0.03% in men, while in 2017 it stood at 2% in women and 0.10% in men. In line with this, in our cohort studied we found that the diagnosis of FM was less common in male than female. In addition, several studies pointed out to a different pain sensibility threshold and associated factors to subjective perception to pain in both sex. Female generally exhibit higher sensitivity to

noxious stimuli not only from mechanical pressure, but also from electric, thermal, ischemic, and cold stimuli.²⁵ It is plausible that complex biological factors from hormonal influences and psychosociocultural factors including sex expectations may influence too. Sociocultural beliefs about femininity and masculinity also appear to be an important determinant of pain responses among sexes as pain expression is generally more socially acceptable among women, an effect which may lead to biased reporting of pain. In a study,²⁶ both men and women believed that men are less willing to report pain than woman. Such gender role expectations may contribute to sex differences when experimenting pain.²⁷ Therefore, we cannot exclude that the existence of other cultural, socioeconomic factors, or differences between both sexes in terms of the perception of the disease, behavior, and attitudes toward health services, may explain this lower prevalence of the disease in men.²⁶ Another study confirms that males with FM tend to endure pain for longer periods of time than females before seeking treatment. Unfortunately, there is still a paucity of evidence on clinical characterization and treatment options when FM occurs in males. With respect to age, the highest prevalence in our study was found in the 55 to 65 and 55 to 65 age groups, with the latter having the highest prevalence. These results concur with the EPISER study in which the group with the highest prevalence was aged 40 to 59 years. In the EPIFFAC study²⁸ the mean age of its sample of 325 people was 52 and a study carried out in the United States found the highest prevalence in the group aged 50 to 59 years.

In Catalonia, a study was carried out between 2011 and 2013 on patients with fibromyalgia in Primary Care Centers which calculated the mean age of the sample to be 55 years. 97.8% of patients treated were women while 2.2% were men.²⁹ These results coincide with the results obtained in this study, as the most prevalent age is found between 55 and 64 years in both women and men. It is worth highlighting the prevalence of FM in rural areas.

Although the published literature has not indicated whether a rural environment can be beneficial or protective with regard to FM compared to an urban one, in our results there is a slightly higher percentage of FM in rural areas and a slight positive correlation with the deprivation index in urban areas.¹⁹ It is also observed that the prevalence of FM has been slightly higher in individuals in areas with greater deprivation than individuals in areas with less deprivation.

The consumption of substances such as alcohol and tobacco, could be associated with an FM diagnosis, since some studies show an intake of alcohol and tobacco (41.4% and 38.5%, respectively) above the average of the general population (19% and 36%).³⁰ However, in our sample only 14.2% of patients diagnosed with FM have low-risk alcohol consumption and 0.49% have a high risk, 49.8% are non-smokers, and 24% are smokers.

FM is not a disease associated with high mortality rates, but it does have significant repercussions on direct and indirect healthcare costs.³¹ Over the 7 year study period, 92% of the individuals diagnosed were still alive, 1.63% had died, and the remainder had left the Catalan health system (6.39%).

The results of our study may contribute to clinical practice and the review and planning of new protocols in primary care to more effectively address people diagnosed with FM., in addition FM is an increasingly prevalent disease in Catalonia with a prevalence increasing from 0.40% in 2010 to 1.07% in 2017. The profile with the highest prevalence was women aged between 55 and 65 with a high deprivation index (MEDEA U4). Few studies have been conducted in Catalanian. More research is required to investigate the behavior, development, and consequences of the disease.

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Author Contributions

Conceptualization, GSV, JVA; Data curation, QMC; Formal analysis, QMC; Funding acquisition, GSV; Investigation, GSV, JVA; Methodology, GSV; Resources, GSV; Software, QMC; Supervision, GSV and QMC; Visualization, JVA; Writing—original draft, GSV; Writing—review and editing, JVA.

Data Availability Statement

The data presented in this study are available on request from the corresponding author.

Declaration of Conflicting Interests

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Ethics Statement

This study was approved by the IDIAP Jordi Gol Research Ethics Committee (CEI) and the SIDIAP Scientific Committee Code (P18/081). The data from the SIDIAP database were anonymized, with a null identification risk, in accordance with Organic Law 15/1999, of December 13.

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