UNIVERSITAT ROVIRA I VIRGILI

LA CLÍNICA DE LA SÍNDROME DE FIBROMIÀLGIA: ANÀLISI DES D'UNA PERSPECTIVA DE GÈNERE

Ilga Ruschak

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TESI DOCTORAL

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2023

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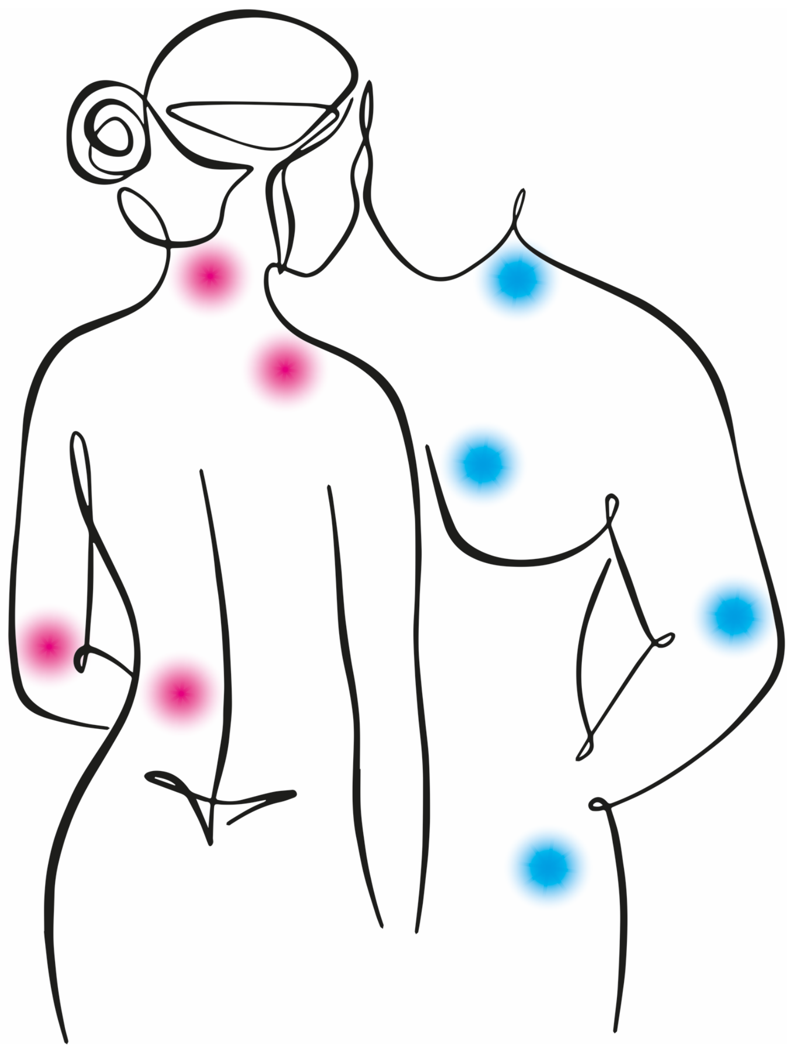

TESI DOCTORAL

2023

La Clínica de la Síndrome de Fibromiàlgia: Anàlisi des d'una Perspectiva de Gènere

Ilga Ruschak

ILGA RUSCHAK

LA CLÍNICA DE LA SÍNDROME DE FIBROMIÀLGIA: ANÀLISI DES D'UNA PERSPECTIVA DE GÈNERE

TESI DOCTORAL

dirigida per la Dra. Pilar Montesó Curto i la Dra. Carina Aguilar Martín

Departament d'Infermeria

UNIVERSITAT
ROVIRA i VIRGILI

Tarragona, 2023

UNIVERSITAT ROVIRA i VIRGILI

FAIG CONSTAR que el present treball, titulat “**La Clínica de la Síndrome de Fibromiàlgia: Anàlisi des d’una Perspectiva de Gènere”**, que presenta **Ilga Ruschak** per a l’obtenció del títol de Doctora, ha estat realitzat sota la nostra direcció al Departament d’Infermeria d’aquesta Universitat.

HAGO CONSTAR que el presente trabajo, titulado “**La Clínica del Síndrome de Fibromialgia: Análisis desde una Perspectiva de Género**”, que presenta **Ilga Ruschak** para la obtención del título de Doctora, ha sido realizado bajo nuestra dirección en el Departamento de Enfermería de esta Universidad.

I STATE that the current work, titled **"Fibromyalgia Syndrome Clinic: Analysis from a Gender Perspective”** submitted by Ilga Ruschak for the PhD degree, has been conducted under our supervision at the Department of Nursing of this University.

Tarragona, 24 maig 2023

Les directores de la tesi,

PhD Supervisors,

Dra. Pilar Montesó Curto

Dra. Carina Aguilar Martín

“Una vida sense dolor hauria de ser un dret fonamental per a tothom”

-Participant anònim.

AGRAÏMENTS

AGRAÏMENTS

Ha sigut una llarga trajectòria de quatre anys que semblava no arribar mai a la seva fi, però aquí estic escrivint aquestes paraules amb la intensió de fer visible la gran sort que he tingut que els nostres camins s'hagin entrellaçat.

A totes les persones afectades per la fibromiàlgia, gràcies per la valentia de compartir la vostra història de vida, seguirem visualitzant la malaltia.

A Pilar i a Carina, les meves directores de tesi. La vostra dedicació ha estat essencial. Hores i hores de correus, trucades i reunions formals (i no tant formals) m'han ajudat a mantenir el rumb cap als objectius establerts. Moltes gràcies.

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A la resta d'autors/es amb qui he tingut el plaer de treballar i obtenir grans resultats, Loren, Angela, Pepe, Alessandra, Laura, Marises... gràcies.

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LLISTA D’ABREVIACIONS

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AINE: Antiinflamatoris no esteroideus

CAR: Col·legi Americà de Reumatologia

CIE: Classificació Internacional de Malalties

EUA: Estats Units d’Amèrica

EVA: Escala Visual Analògica del dolor

FIQ: *Fibromyalgia Impact Questionnaire* o Qüestionari d’Impacte de la Fibromiàlgia

OMS: Organització Mundial de la Salut

ONU: Organització de les Nacions Unides

PCS: *Pain Catastrophizing Scale* o Escala de Catastrofització del Dolor

PRISMA: *Preferred Reporting Items for Systematic Reviews and Meta-Analyses*

SFM: Síndrome de fibromiàlgia

SNC: Sistema Nerviós Central

SNR: Son no reparador

SSS: *Symptom Severity Score* o Escala de Severitat dels Símptomes

TEPT: Trastorn d’Estrès Posttraumàtic

TP: *Tender points* o punts sensibles

WPI: *Widespread Pain Index* o Índex de Dolor Generalitzat

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RESUM

RESUM

La síndrome de fibromiàlgia és una malaltia d'origen desconegut que es caracteritza per dolor crònic, fatiga, trastorn del son, ansietat, depressió i deteriorament funcional. Afecta com a mínim a un 5% de la població mundial i la prevalença és majoritàriament en dones, amb un 80-96% dels casos. Aquest fet ha comportat que el coneixement actual sobre la patologia s'hagi desenvolupat principalment a partir d'estudis en dones, donant com a resultat la invisibilitat de la perspectiva masculina i el seu conseqüent infradiagnòstic.

Objectius: Aquesta tesi es van centrar en la clínica de la patologia des d’una perspectiva de gènere. Es va pretendre: (1) Determinar com s’avalua el dolor a nivell quantitatiu. (2) Examinar si existeixen diferències en les característiques del dolor entre els homes i les dones que pateixen la fibromiàlgia. (3) Descriure com es conceptualitza el dolor des d’un enfoc qualitatiu.

Tenint en compte l’escassa evidència en relació a les manifestacions clíniques dels pacients masculins, també es van plantejar objectius particulars en homes: (4) Descriure les experiències de dolor i fatiga en els homes amb la fibromiàlgia de dos països (Espanya i Estats Units d’Amèrica). (5) Examinar els símptomes físics i psicològics. (6) Analitzar els possibles efectes secundaris de les teràpies farmacològiques, i finalment, (7) explorar l'impacte de la patologia comparant els resultats entre diferents grups sociodemogràfics.

Metodologia: Per poder assolir els tres primers objectius plantejats es va realitzar una revisió d’abast amb la inclusió d’estudis publicats entre l’any 2016 i 2022.

Per al quart objectiu es va executar un estudi transcultural amb mètode mixt (quantitativa i qualitativa) entre dos països. Hi van participar un total de 17 homes (10 espanyols i 7 nord-americans) afectats per la patologia. Per a la recollida de dades es va fer ús d’entrevistes semi-estructurades, grups focals i qüestionaris.

Per assolir els demés objectius es va efectuar un estudi exploratori seqüencial amb metodologia mixta. Es va dividir en una fase qualitativa i una quantitativa. En la fase qualitativa es va treballar amb 10 homes afectats per la malaltia mitjançant l’ús dels grups focals. En la fase quantitativa es va aportar un qüestionari ad hoc i el Qüestionari d’Impacte de la Fibromiàlgia a un total de 23 homes.

Resultats: A la revisió s’ha observat que tant la percepció subjectiva com el dolor generalitzat són més elevats en les dones. Els homes, en canvi, tenen un impacte pitjor de la patologia i més experiències doloroses. Les escales més utilitzades de avaluar el dolor són l’escala visual analògica i el qüestionari d’impacte de la fibromiàlgia. A l’estudi transcultural s’ha detectat que la situació laboral i les activitats, entre altres factors contextuals, influeixen en les experiències de dolor i fatiga dels homes: Els homes experimenten diferents facetes del dolor i la fatiga en comparació a les dones, amb notables similituds i diferències entre les mostres espanyoles i nord-americanes. Pel que fa l´últim estudi, s’ha observat que els fàrmacs més utilitzats són els antidepressius i ansiolítics (86,9%), seguits d'antiinflamatoris no esteroïdals (82,6%) i opioides (60,9%). S’ha detectat que el consum d'opioides provoca somnolència i dependència, símptomes no desitjats que dificulten als pacients la realització d’activitats bàsiques de la vida diària.

Conclusions: Existeixen petites diferències en la clínica del dolor entre els homes i les dones, però sense significació estadística clara i amb poca representació masculina en els estudis. El dolor es descriu per part de les persones afectades com imprevisible, insuportable en els pitjors moments i totalment invisible davant les persones que els envolten. Els homes descriuen el dolor com localitzat (no generalitzat), aquest podria ser un element distintiu que els sanitaris haurien de tenir en compte al moment del diagnòstic. Els homes espanyols tenen un major impacte de la patologia i dolor que els nord-americans, molts no treballen i estan medicats en excés. La fatiga limita als homes d’ambdós països i no millora amb el descans. Finalment, destacar que els homes afectats també presenten una gran varietat de símptomes físics, mentals i d’altres secundaris a la medicació molt greus, com és la dependència als opiacis.

Paraules clau: fibromiàlgia; dolor; homes; clínica; simptomatologia

RESUMEN

El síndrome de fibromialgia es una patología de causa desconocida que se caracteriza por presentar dolor crónico, fatiga, trastorno del sueño, ansiedad, depresión y deterioro funcional. Afecta al menos a un 5% de la población mundial y la prevalencia es mayoritariamente en mujeres, representando entre un 80-96% de los casos. Este hecho ha supuesto que el conocimiento actual sobre la patología se haya desarrollado a partir de investigaciones en mujeres, dando pie a la invisibilidad de la perspectiva masculina y consecuentemente a su infradiagnóstico.

Objetivos: Esta tesis se centra en la clínica de la patología desde una perspectiva de género. Se pretendió: (1) Determinar cómo se evalúa el dolor a nivel cuantitativo. (2) Examinar si existen diferencias en las características del dolor entre los hombres y las mujeres que sufren de fibromialgia. (3) Describir cómo se conceptualiza el dolor desde un enfoque cualitativo.

Teniendo en cuenta la escasa evidencia con relación a las manifestaciones clínicas de los pacientes masculinos, también se plantearon objetivos particulares en hombres: (4) Describir las experiencias de dolor y fatiga en los hombres con la fibromialgia de dos países (España y Estados Unidos). (5) Examinar los síntomas físicos y psicológicos. (6) Analizar los posibles efectos secundarios de las terapias farmacológicas; y finalmente, (7) explorar el impacto de la patología comparando los resultados entre diferentes grupos sociodemográficos.

Metodología: Para poder alcanzar los tres primeros objetivos planteados se realizó una revisión de alcance con la inclusión de estudios publicados entre 2016 y 2022.

Para el cuarto objetivo, se ejecutó un estudio transcultural de método mixto (cuantitativa y cualitativa) entre dos países. Participaron un total de 17 hombres (10 españoles y 7 estadounidenses) afectados por la patología. Para la recogida de datos se utilizaron entrevistas semiestructuradas, grupos focales y cuestionarios.

Para conseguir los demás objetivos se efectuó un estudio exploratorio secuencial con metodología mixta. Se dividió en una fase cualitativa y una cuantitativa. En la fase cualitativa se trabajó con 10 varones afectados mediante la utilización de los grupos focales. En la fase cuantitativa se aportó un cuestionario ad hoc y el Cuestionario de Impacto de la Fibromialgia a un total de 23 varones afectados.

Resultados: En la revisión, se ha observado que tanto la percepción subjetiva como el dolor generalizado son más elevados en las mujeres. En cambio, los hombres experimentan un impacto más grave de la patología y más experiencias dolorosas. Las escalas más utilizadas para evaluar el dolor son la escala visual analógica y el cuestionario de impacto de la fibromialgia. En el estudio transcultural, se ha visto que el estado laboral y las actividades, entre otros factores contextuales, influyen en las experiencias de dolor y fatiga de los hombres. Los hombres experimentan diferentes facetas del dolor y la fatiga en comparación con las mujeres, con similitudes y diferencias notables entre las muestras españolas y norteamericanas. En cuanto al último estudio, se ha observado que los medicamentos más utilizados son los antidepresivos y ansiolíticos (86,9%), seguidos de los medicamentos antiinflamatorios no esteroides (82,6%) y los opioides (60,9%). Se ha detectado que el consumo de opioides provoca somnolencia y dependencia, síntomas indeseados que

dificultan a los pacientes realizar actividades básicas de la vida diaria.

Conclusiones: Existen pequeñas diferencias en la clínica del dolor entre hombres y mujeres, pero sin significación estadística clara y con poca representación masculina en los estudios. El dolor se describe por parte de las personas afectadas como imprevisible, insoportable en los peores momentos y totalmente invisible frente a las personas que les rodean. Los hombres describen el dolor como localizado (no generalizado), éste podría ser un elemento distintivo que los sanitarios deberían tener en cuenta en el momento del diagnóstico. Los hombres españoles tienen mayor impacto de la enfermedad y dolor que los estadounidenses, la mayoría no trabajan y están medicados en exceso. La fatiga limita a los varones de ambos países y no mejora con el descanso. Por último, hay que destacar que los hombres también presentan una gran variedad de síntomas físicos, mentales y otros secundarios a la medicación muy graves, como es la dependencia a los opiáceos.

Palabras clave: fibromialgia; dolor; hombres; clínica; sintomatología

ABSTRACT

Fibromyalgia syndrome is an illness of unknown origin characterized by chronic pain, fatigue, sleep disorders, anxiety, depression, and functional impairment. It affects at least 5% of the world's population, with a higher prevalence in women, accounting for 80-96% of cases. Consequently, most of the current understanding of the condition is derived from research conducted on women, resulting in the invisibility of the male perspective and leading to underdiagnosis in men.

Objectives: This thesis focuses on the clinic of the pathology from a gender perspective. The aim was to: (1) Determine how pain is assessed at a quantitative level. (2) Examine whether there are differences in pain characteristics between men and women suffering from fibromyalgia. (3) Describe how pain is conceptualized from a qualitative approach.

Taking into account the scarce evidence regarding the clinical manifestations of male patients, we also set particular objectives in men: (4) To describe the experiences of pain and fatigue in two countries (Spain and the United States). (5) To examine the physical and psychological symptoms. (6) To analyse the possible side effects of pharmacological therapies, and finally, (7) to explore the impact of the pathology by comparing the results among different sociodemographic groups.

Methodology: To address the first three objectives, a scoping review was conducted, including studies published from 2016 to 2022.

For the fourth objective, a cross-cultural mixed-method study involving both quantitative and qualitative approaches was implemented across two countries. A total of 17 men participated, with 10 from Spain and 7 from the United States. Data collection involved semi-structured interviews, focus groups, and questionnaires.

To achieve the remaining objectives, a sequential exploratory study was conducted using a mixed methodology. The study was divided into two phases: qualitative and quantitative. In the qualitative phase, focus groups were conducted with 10 affected men. The quantitative phase involved providing an ad hoc questionnaire and the Fibromyalgia Impact Questionnaire to a total of 23 males.

Results: In the scoping review, it has been observed that both subjective perception and widespread pain are higher in women. Conversely, men experience a more severe impact of the pathology and more painful experiences. The most commonly used scales to assess pain are the visual analogue scale and the fibromyalgia impact questionnaire. In the cross-cultural study, it has been found that employment status and activities, among other contextual factors, influence men's experiences of pain and fatigue. Men experience different facets of pain and fatigue compared to women, with notable similarities and differences between the Spanish and American samples. Regarding the latest study, it has been observed that the most commonly used medications are antidepressants and anxiolytics (86.9%), followed by nonsteroidal anti-inflammatory drugs (82.6%) and opioids (60.9%). It has been detected that the use of opioids causes drowsiness and dependence, unwanted symptoms that hinder patients from performing basic activities of daily life.

Conclusions:

In clinical pain, there are minor differences observed between men and women, but these lack clear statistical significance, and studies often have limited male representation. Those affected describe pain as unpredictable, excruciating during the worst moments, and invisible to others. Men tend to describe localized pain rather than generalized pain, which could be a distinguishing factor for healthcare professionals during diagnosis. Spanish men experience greater illness impact and pain compared to American, most do not work and are over-medicated. Fatigue limits males in both countries and does not improve with rest. Finally, it is important to note that men may also experience a range of physical, mental, and severe secondary symptoms as a result of medication, including opioid dependence.

Keywords: fibromyalgia; pain; men; clinical; symptomatology

INTRODUCCIÓ

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1.1. MARC CONCEPTUAL

La síndrome de fibromiàlgia (SFM) és un trastorn crònic que causa dolor múscul-esquelètic generalitzat en absència de patologia orgànica subjacent ben definida (1). La seva etiologia és desconeguda i molt debatuda, alguns professionals sanitaris creuen que és un mitjà emprat pels pacients per buscar la seva atenció o una condició purament psicològica i no física, aquesta idea està molt associada a la falta de biomarcadores analítics clars que determinin la patologia (1-3).

La SFM està classificada dins dels síndromes de sensibilització del sistema nerviós central (SNC), conjuntament amb la Síndrome de Fatiga Crònica i la Sensibilitat Química Múltiple (4). A més a més del dolor, la SFM presenta múltiples manifestacions cròniques que coexisteixen com són la fatiga, les alteracions en el patró de la son, l'ansietat, la depressió i el deteriorament funcional de les activitats de la vida diària entre d'altres (1-5). La gran majoria de les persones afectades acaben sofrint diversos graus d'invalidesa que els dificulta o impossibilitat tenir un rendiment habitual de les seves necessitats (4).

Aquesta síndrome també s'associa a elevats costos socioeconòmics per al sistema sanitari (visites mèdiques, especialistes, proves diagnòstiques, fàrmacs i d'altres teràpies) i per als mateixos treballadors (baixes laborals per malaltia, alta taxa d'absentisme i disminució de la productivitat laboral) (6,7).

1.1.1. Antecedents històrics:

La SFM es cataloga com una malaltia recentment reconeguda, però les descripcions relacionades amb la clínica del dolor ja s'havien reportat als principis de la dècada del segle XIX, com el dolor descrit en les teories de William Balfour (1824) i François Louis Isidore Vallaix (1841), definint-ho com l'afectació de trajectes nerviosos que eren responsables de la sensibilitat nociceptiva o conscienciació del dolor (8).

L'any 1904, el neuròleg britànic William Richard Gowers crea el terme "*fibrositis*" que es va utilitzar fins els anys 80-90 i definia un quadre clínic que actualment relacionem amb la fibromiàlgia (8,9).

L'any 1937, Halliday estableix el terme "*reumatisme psicogènic*", que connecta els diversos conflictes bèl·lics causants d'estrès i/o depressió amb el desenvolupament de dolor múscul-esquelètic crònic. Aquest és el cas d'alguns combatents de la guerra del Golf Pèrsic (1990-1991), els quals van desenvolupar l'anomenada "*síndrome de la Guerra del Golf*" que consisteix bàsicament en un conjunts de símptomes variables com són el cansament, els dolors musculars i articulars, les cefalees, la pèrdua de la memòria i l'estrès posttraumàtic (8,9).

Posteriorment, a la dècada dels 70, Smythe i Moldofsky van crear el terme *"fibromiàlgia"* i van donar anomenar les regions de sensibilitat extrema com a punts sensibles o "*tender points* (TP)" (10).

L'any 1981, Yunus va ser el primer en evidenciar altres manifestacions clíniques en pacients amb fibromiàlgia, tals com l'intestí irritable, la dismenorrea primària i la cefalea tensional, concloent que la condició multifactorial és la norma del desenvolupament d'aquesta malaltia. Finalment, l'any 1990 el Col·legi Americà de Reumatologia (CAR), va establir els criteris diagnòstics de la fibromiàlgia (11) i dos anys més tard (1992), l'Organització Mundial de la Salut (OMS) la va classificar al manual CIE-10, on consta com a patologia reumàtica crònica diferenciada (8,12). Tot i els esforços històrics dirigits a identificar la fibromiàlgia com una malaltia reconeguda, actualment segueix sent un gran motiu de frustració i desconfiança, perquè tant la seva causa com el seu diagnòstic són enigmes que es basen en hipòtesis, dificultant al seu torn, un tractament efectiu.

1.1.2. Prevalença:

Estudis realitzats en diverses poblacions han demostrat que, entre les malalties que causen dolor crònic, la SFM és la més freqüent (4). Les xifres de prevalença oscil·len al voltant del 5% de la població mundial (1,13). La incidència és lleugerament més elevada a Europa (2.64%) que a Amèrica (2.41%) o a l'Àsia (1.62%) (14). Els percentatges varien d'un país a un altres per la disparitat de les maneres de determinar-los, dels grups d'edat inclosos i de les diferències en les normes socioculturals. Així, per exemple, la prevalença a Espanya se situa al voltant del 2.4%, mentre que als Estats Units és del 2% (15).

Cal destacar també, que la fibromiàlgia té un alt predomini femení, el qual representa entre el 80-96% del total de la població afectada (15,16). L'edat mitja de diagnòstic varia entre els 35-50 anys, tot i que la patologia també es manifesta en nens/es i adolescents entre l'1.2 i el 6% (17,18).

1.1.3. Etiopatogènia:

S'han identificat casos de fibromiàlgia que s'inicien després de processos aguts o desencadenants ambientals, com pot ser una infecció, un accident traumàtic, una cirurgia, la mort d'un ésser estimat, una agressió, una activitat anòmala del sistema neuro-endocrí, problemes laborals, problemes amb la parella-fills o, fins i tot, després de l'aparició d'una altra malaltia que limiti la qualitat de vida de la persona, com són l'artritis reumatoide o el lupus eritematós (2,3).

La combinació entre una predisposició genètica, diversos factors ambientals i l'alteració en els mecanismes del dolor podrien donar lloc a la patologia (3).

1.1.4. Diagnòstic:

En l'actualitat, continua existint una controvèrsia important sobre l'avaluació i el diagnòstic de la fibromiàlgia. Tot i els avenços en la comprensió del procés patològic, la SFM segueix sense diagnosticar-se en un alt percentatge de persones que la pateixen (19).

El diagnòstic es basa en dades subjectives dels individus afectats, comportant una gran dificultat per als professionals, i també, una gran inversió de temps i diners per part del pacient per esbrinar què li està passant. Actualment, el temps mitjà de diagnòstic està entre els 2-6 anys (20,21).

El primer intent d'establir els criteris diagnòstics de la fibromiàlgia data l'any 1990 i es basa en estudis realitzats en 16 centres dels Estat Units d'Amèrica (EUA) i Canadà, on es va verificar la utilitat dels punts sensibles (o TP) en un total de 558 persones. Es va demostrar que era la millor eina diferencial entre el grup control i el grup d'afectats amb una sensibilitat del 88.4% (22).

Després de 20 anys, el Col·legi Americà de Reumatologia (CAR) va publicar modificacions controvertides que van posar en joc nous criteris diagnòstics. Es va eliminar l'examen dels punts sensibles i es van introduir dues noves escales com a instrument principal, l'Escala de Severitat dels Símptomes (SSS) (**ANNEX1**) i l'Índex de Dolor Generalitzat (WPI) (**ANNEX2**). Aquestes escales mesuren el grau de dolor, la fatiga, el son no reparador, els símptomes cognitius i altres múltiples símptomes que anteriorment no es tenien en compte. Aquesta variació es justifica afirmant que aproximadament un 25% dels afectats no complien els criteris del 1990 i se'ls descartava del procés (23,24). Per tant, es va constatar que els criteris CAR 2010 eren més sensibles que els del 1990, cosa que permetia identificar correctament pacients infradiagnosticats i donar una oportunitat de tractament a aquells que no l'havien rebut (25). La **Figura 1** mostra els criteris CAR 1990 per a la classificació de la fibromiàlgia, mentre que la **Figura 2** mostra una representació gràfica de la SSS amb l'extensió dels símptomes somàtics.

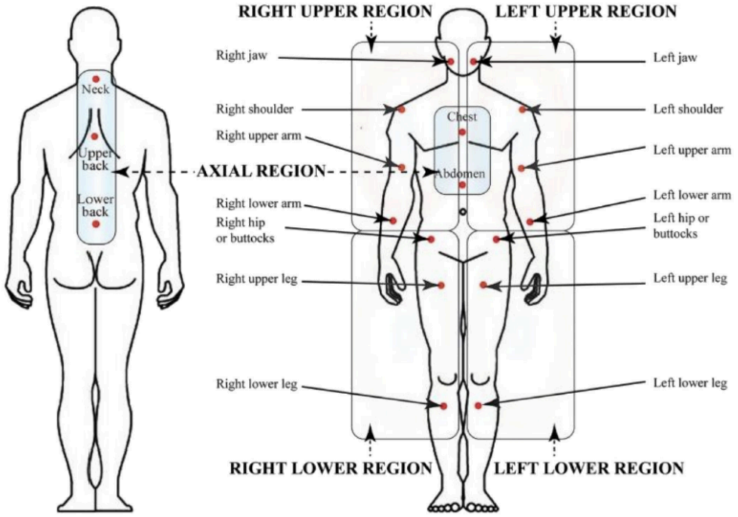

Figura 1. Índex de dolor generalitzat dels criteris CAR 1990 per a la classificació de la fibromiàlgia.

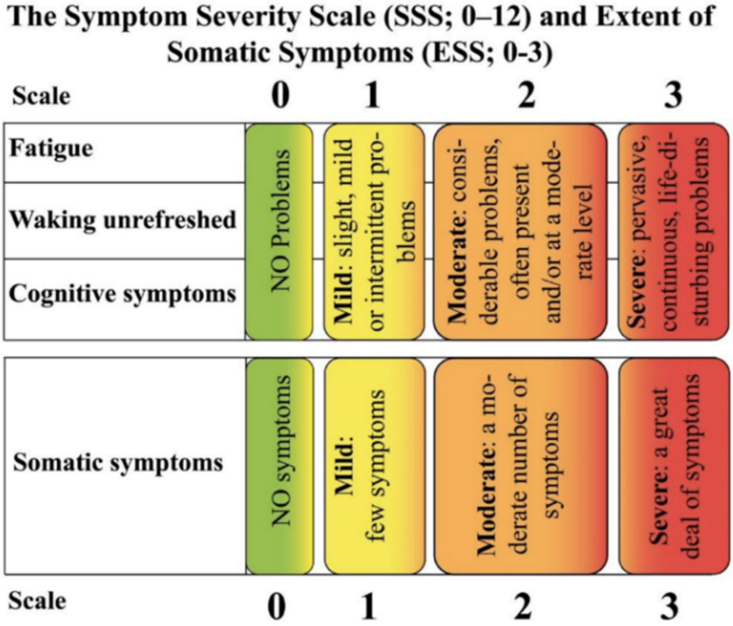

Figura 2. Escala de Severitat dels Símptomes (SSS) i l'extensió dels símptomes somàtics.

L'any 2016, basant-se en el criteri de dolor generalitzat i en dades d'ús clínic, es va presentar una nova revisió del sistema CAR 2010 que incloïa els següents criteris:

1. Dolor generalitzat.
2. Símptomes presents durant al menys tres mesos.
3. WPI de 7 i SSS de 5 o WPI de 4-6 i SSS de 9.
4. El diagnòstic de fibromiàlgia és vàlid independentment d'altres diagnòstics, és a dir, la presència d'altres malalties clíniques importants no exclou el diagnòstic (26).

En definitiva, tot i que encara no existeix un diagnòstic inequívoc, aquests nous criteris actualitzats són molt útils per a les persones afectades, ja que el fet de tenir "una resposta" els disminueix l'angoixa i s'eviten proves complementàries costoses i/o innecessàries. Aquesta modificació, també permet al pacient ser escoltat durant la revelació de les seves preocupacions i expectatives (27).

1.1.5. Tractament:

Pel que fa el tractament, aquest no es curatiu i ha demostrat poca resposta per part dels usuaris. El principal objectiu és pal·liar les manifestacions clíniques i millorar la qualitat de vida de la persona (19), ja que s'ha demostrat que aquesta és significativament pitjor que la de pacients ostomitzats i amb altres patologies cròniques com són la diabetis tipus I, la malaltia pulmonar obstructiva crònica (MPOC) i l'artrosi (4).

En el cas de la teràpia farmacològica, alguns tractaments semblen millorar la qualitat de vida dels pacients amb fibromiàlgia (28). Actualment, els analgèsics solen reduir el dolor al voltant del 25-40%, alleujament considerat no significatiu (29). A la pràctica clínica, aquestes limitacions han fet plantejar la hipòtesi de que una combinació d'analgèsics que actuïn a través de diferents mecanismes del dolor pot proporcionar resultats superiors en comparació a la monoteràpia (30).

Tot i això, la satisfacció farmacològica per part dels usuaris es baixa i normalment es deu a:

- L'excessiva prescripció d'opioides potents.
- La pauta de dosis baixes d'antidepressius.
- La polifarmàcia incrementa els efectes adversos (31).

Una revisió del 2022 sobre el tractament de la fibromiàlgia aconsella que s'utilitzi el tractament farmacològic (si cal), però mai a l'inici de la simptomatologia. Tot i que la farmacologia és un element essencial, aquesta ha de tenir un equilibri entre els efectes desitjats i els efectes adversos. També es manifesta la importància d'un enfoc multidisciplinari, ja que les teràpies farmacològiques per si soles proporcionen resultats dèbils (32). És habitual detectar que els pacients per si mateixos busquen ajuda en les teràpies alternatives a causa de la limitada eficàcia de les opcions terapèutiques adquirides (21, 31).

Del gran ventall de mesures no farmacològiques existents (psicoteràpia individual o grupal, massatges, fitoteràpia, exercici, acupuntura, teràpia termal, dietes, suplements de magnesi...), l'exercici físic gradual amb estiraments previs i una adequada fortalesa muscular són, sense cap dubte, les més eficaces, ja que s’estimulen regions cerebrals implicades en la inhibició del dolor, ajuden a conciliar el son i disminueixen la rigidesa muscular, la fatiga, l’ansietat i la depressió.

Un altre component fonamental és la psicoteràpia. Les teràpies psicològiques més utilitzades són la teràpia cognitivoconductual, la teràpia de resolució de problemes i l'aprenentatge d'estratègies d'afrontament, ja que disminueixen el dolor, l'ansietat i la depressió (32).

En resumides paraules, un tractament eficaç hauria de ser aquell que combini la teràpia farmacològica i no farmacològica complint els següents requisits:

- Començar amb un diagnòstic precoç.
- Facilitar informació rigorosa i comprensible al pacient i a la família.
- Tractament multidisciplinari a llarg termini.
- Mínima utilització de fàrmacs i només en casos necessaris.
- L’objectiu principal ha de ser la millora de la qualitat de vida de la persona (21,31, 32).

El gran problema en aquests pacients és que tenen més dificultat d’accessibilitat als recursos que la resta, pateixen una patologia que combina problemes psicològics, físics i emocionals. Aquestes persones solen estar deprimides i tenir una baixa autoestima, per això, acaben renunciant a la creença d'arribar a millorar, ja que la majoria dels tractaments que han provat no els han funcionat. Per tant, proporcionar als pacients la informació correcta sobre la patologia pot ajudar a controlar i dirigir les teràpies farmacològiques i no farmacològiques utilitzades en cada cas (32, 33). Alhora, és fonamental que la persona tingui un paper actiu i constant en el seu tractament, mantenint un ritme que pugui seguir, adaptat a la seva situació personal per tal de que els èxits superin els fracassos (21).

1.1.6. Cost econòmic associat a la SFM:

La SFM està considerada com un problema de gran transcendència en la salut pública. Segons una mostra de població aleatòria del Canadà (691 persones amb i sense fibromiàlgia), es va detectar que els costos sanitaris totals dels pacient amb la SFM són tres vegades superiors a la d'altres persones (34). Diversos estudis han demostrat que aquests pacients són grans consumidors dels serveis sanitaris a nivell mundial (6,35) i el número de consultes que necessiten és de gairebé el doble que en les persones sanes. Al nostre país, és una de les patologies reumàtiques que produeix més consultes als centres de salut, generant grans costos sanitaris, tant per les interconsultes com pel consum farmacològic (15). La falta d'un tractament eficaç repercuteix negativament en la qualitat de vida de la persona afectada, comportant un consum continuat i/o excessiu de medicaments (36). En un estudi realitzat a Miami (EUA) amb 2.613 pacients amb fibromiàlgia, es va demostrar que el diagnòstic de la patologia va associat a un augment de la utilització d'analgèsics durant els primers 6 mesos post-diagnòstic seguida d'una posterior estabilització (37). També cal destacar que la simptomatologia de la SFM produeix importants limitacions a nivell físic, repercutint en un major absentisme laboral o incapacitat, traduint-se en una pèrdua de la productivitat de la persona o impacte en els costos indirectes de la societat (6,7,38).

1.2. SIMPTOMATOLOGIA DE LA FIBROMIÀLGIA

Com s'ha mencionat anteriorment, el dolor és la característica principal i més desagradable de la SFM, però a més a més, la fibromiàlgia presenta una complexa clínica que també inclou molts altres signes i símptomes, resumits a la **Figura 3**. En la següent secció s'ofereix una descripció més detallada de cada un d'aquests símptomes.

1.2.1. Dolor:

El dolor es descriu per part dels pacients com generalitzat, és a dir, present de cap a peus. Té múltiples dimensions com poden ser la sensació de cremor, de punxades (com agulles), de molèstia o de càrrega muscular. Amb freqüència, els individus afectats refereixen que el dolor pot començar de forma general o, per contra, començar en determinades àrees del cos i, posteriorment, es va estenent a diferents regions corporals (39). La seva intensitat sol variar i s'associa a esforços i estrès físic o mental (40). La localització i la gravetat del dolor depenen de certs factors com l'activitat laboral, les comorbiditats (com l'obesitat) i les variacions de temperatura i pressió ambiental (41,42).

Actualment, el dolor de la fibromiàlgia es caracteritza per dominar-se "*dolor nociplàstic*", és a dir, existeix una alteració de la sensibilitat o conscienciació del dolor, però sense evidència de dany tissular causant d'aquest dolor. Per tant, al tenir aquesta distinció ofereix una nova possibilitat de diagnòstic precoç de la fibromiàlgia basat en la simptomatologia (43).

1.2.2. Fatiga:

La fatiga és un altre dels símptomes més freqüents en aquesta patologia i està present en un de cada quatre pacients (44). Aquesta pot ser tant física com mental i el seu grau varia des d'un cansament lleu a un esgotament comparable al que experimenta una “persona sana” al patir un quadre gripal (45).

La fatiga en la fibromiàlgia sol empitjorar sobretot a causa de la depressió i el son no reparador que pateixen les persones afectades. Aquesta no sempre és recuperable, és a dir, sovint no cedeix amb el descans. En el cas de la depressió, encara que el tractament amb antidepressius sovint produeix una modesta millora en les escales de fatiga, poques vegades milloren aquest símptoma (46,47).

1.2.3. Trastorns del son:

Els trastorns del son o l’insomni és un altre dels grans problemes de la SFM. Els pacients habitualment tenen problemes per iniciar i mantenir el son; la característica més destacable és la sensació de cansament al despertar, l’anomenat son no reparador (SNR) (48,49).

Al realitzar l'avaluació clínica de les alteracions del son en subjectes amb fibromiàlgia, la qüestió principal és determinar si realment la persona pateix d’un trastorn del son primari, ja que en alguns casos hi intervenen altres factors, el més habitual en aquestes persones és sofrir de la síndrome de les cames inquietes (50).

1.2.4. Ansietat i depressió:

Hi ha un consens general en que la depressió, els trastorns d'ansietat i el trastorn d’estrès posttraumàtic (TEPT) són comuns en pacients amb la SFM (51). Psicològicament aquestes persones presenten emocions negatives associades a un estat d'angoixa generalitzat i aquest estat de patiment continu pot desencadenar en trastorns psiquiàtrics complexos com són l’ansietat i la depressió. L’ansietat i la depressió en subjectes amb fibromiàlgia representen entre un 6-35% respecte al 5% en el cas de les “persones sanes” (52).

Aquests trastorns (sobretot la depressió) poden tenir conseqüències devastadores en la vida de la persona, per exemple, en una població danesa de pacients amb fibromiàlgia, el risc de suïcidi era deu vegades més gran que en la població general, fet que es va confirmar posteriorment en una revisió sistemàtica (52,53).

1.2.5. Disfunció cognitiva:

Els problemes de memòria i concentració són també símptomes molt nombrats pels pacients amb fibromiàlgia, aquest fenomen rep el nom de *"fibroboira" o “fibrofog*” (54). S'ha calculat que aquesta disminució del rendiment cognitiu equival a uns 20 anys d'envelliment (55). Alguns investigadors han assenyalat que els defectes cognitius manifestats en pacients amb la SFM poden ser el resultat de la fatiga, el dolor i la depressió (56,57).

1.2.6. Altres símptomes:

A més de les nombroses manifestacions clíniques ja descrites la SFM cursa amb molts altres signes i símptomes com són les cefalees migranyoses o tensionals, dolor abdominal i/o intestí irritable (58), trastorn temporomandibular, marejos i parestèsies, trastorns genitourinaris (com la síndrome de la bufeta dolorosa) (59), sequedat a la boca (xerostomia) i als ulls (xeroftalmia), fenomen de Raynaud (60) i fotofòbia entre d’altres (61).

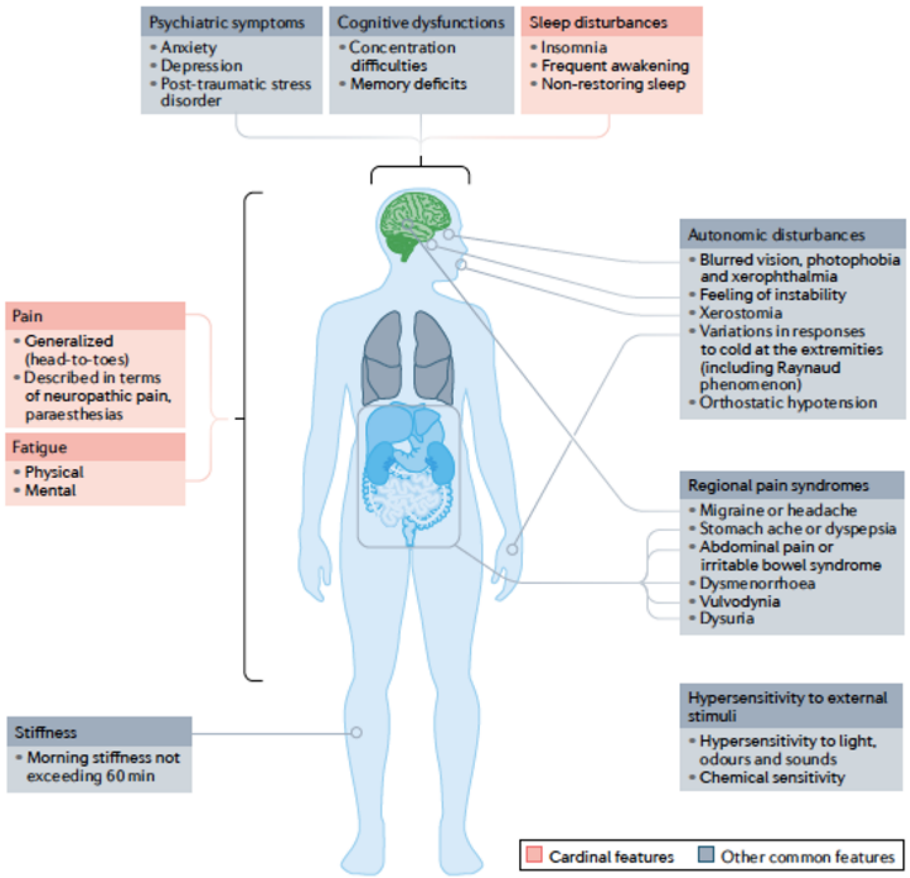

Figura 3. Principals signes i símptomes de la fibromiàlgia. Els símptomes estan dividits en dos grups. Els marcats en rosa com els símptomes principals i més habituals i els marcats en gris com la resta existents.

1.3. FIBROMIÀLGIA I GÈNERE

1.3.1. Una aproximació al feminisme i a les desigualtats socials:

Si aprofundim en la història de la cultura humana podem observar com la figura de la dona ha estat, durant molts anys, a l'ombra de la de l'home. Al llarg dels segles s'ha construït una idea de les dones basada en un destí natural, el de la reproducció (62). No importava la classe social o religió, es tenia la idea de que la dona és un ésser determinat pel seu sexe, cosa que no va ser així en els homes, els quals no han tingut una tasca biològica. La identitat de la dona sempre ha anat íntimament vinculada a la maternitat, per aquesta raó, la dona sempre ha estat lligada al servei de la família i, en definitiva, al servei de l'home dins d'un sistema patriarcal (62,63). Les dones han tingut que lluitar moltíssim per a desprendre's de la submissió, repressió i exclusió en diversos àmbits socials com el laboral, el familiar i el sanitari.

Casi dos segles de lluita feminista ha contribuït a modificar les nostres pràctiques socials actuals. Tot i això, la realitat mostra encara una gran separació entre el que és la igualtat formal i la verdadera desigualtat que existeix. Una desigualtat que continua essent injustificable sobretot en les societats liberals i democràtiques que es regeixen per garantir la llibertat a tots els ciutadans (64). En aquestes societats la igualtat de les dones ni s'arriba a qüestionar, ja que al menys a nivell teòric aquesta igualtat està integrada com a part de la Declaració Universal dels Drets Humans aprovats per l'ONU l'any 1948 (65).

Durant la història feminista s'ha produït tres gran onades, el feminisme il·lustrat, el feminisme sufragista i el feminisme contemporani. Després de la primera onada res va tornar a ser "natural", allò que sempre s'havia considerat normal va canviar, s'aconsegueix un immens canvi de perspectiva, les dones demanaven l'abolició dels privilegis masculins, drets matrimonials i als fills, al treball, a la capacitació professional, a l'educació i al vot. Durant aquesta primera onada, l'any 1949 es va publicar el llibre titulat "*Le deuxième sexe*" (o el segon sexe) de Simone de Beauvoir que va causar un gran ressò, ja que partia de la premissa que no es neix dona, sinó que es fa (63), emfatitzant que la condició de subordinació de la dona no és una cosa natural; la dona es fa a través de la introjecció d'un lloc social i expectatives socials que es transmeten sobretot a través de la família i les diferents institucions socials (66). Amb la segona onada, el feminisme sufragista aconsegueix els drets educatius, polítics i bona part del civils de les dones.

Pel que fa a l'actualitat, vivim en l'anomenat feminisme contemporani, el qual no és global, ja que encara existeixen societats que no el duen a terme. Aquesta tercera onada iniciada l'any 1990 té un objectiu molt ambiciós, però no impossible si observem l'èxit aconseguit per part de les anteriors onades. La finalitat és aconseguir la igualtat i la paritat en tots els racons del món i a tots els nivells (65). Lluitar pels drets sexuals i reproductius de les dones, dret a la maternitat voluntària (anticoncepció/avortament) i eines per a fer visible les diferències entre sexe/gènere desnaturalitzant la desigualtat. Un definició clara d'aquests dos conceptes és que sota el substantiu gènere s'agrupen els aspectes psicològics, socials i culturals de la feminitat/masculinitat, reservant així, el terme sexe per als components biològics i anatòmics (67,68).

Si ens centrem en el camp de la salut, aquesta desigualtat hi està present i la síndrome de fibromiàlgia n'és un clar exemple.

1.3.2. Desigualtats en l'àmbit de la salut:

Pel que fa aquesta desigualtat en la salut, hem de partir de la premissa de que el gènere és un determinant de la salut. Un dels paradigmes més clars a nivell mundial de desigualtat de gènere en salut va ser la patologia cardiovascular, ja que durant anys es realitzaven assaigs clínics per al tractament de l'infart de miocardi només amb homes suposant que els resultats es podien extrapolar en les dones. Posteriorment, es va evidenciar que existien diferències significatives entre homes i dones, fet que va repercutir negativament en la salut de moltes dones (69).

La invisibilitat de la dona en el coneixement de la medicina i la farmacologia s'ha denunciat per part de les organitzacions feministes des dels anys 70 i 80 (70). Aquesta perspectiva androcèntrica ha fet que el coneixement mèdic actual sigui parcial i que la majoria dels problemes que afecten a la salut de les dones no s'hagin estudiat prou (71). A partir dels anys 90, els reclams publicitaris de les farmacèutiques obliguen a la ciència mèdica a acceptar l'existència de la diferència. Cada vegada hi han més dades científiques que posen de manifest l'existència de diferències en la manera d'emmalaltir entre homes i dones, en l'evolució de les patologies i el mecanisme d'acció dels fàrmacs. Tot i això, també és important no homogeneïtzar la categoria social de les dones, ja que en la mateixa categoria de les dones es presenten realitats ben diferenciades com l'ètnia, la classe social, l'ocupació, el medi rural o l'urbà, la convivència conjugal, tenir o no tenir descendència i l'orientació sexual (70).

Vivim en un món dinàmic i possiblement el feminisme sigui un dels majors canvis socials i morals. El terme "feminisme" segueix causant cert recel, fins i tot, als països democràtics, ja que existeix la confusa idea de que el feminisme buscar anul·lar la capacitat dels homes, però està lluny d'aquest tòpic. El feminisme és un moviment de transformació sociopolític i cultural que promou el compliment dels principis d'igualtat de totes les persones, principi que se suposa que tots els éssers humans defensem.

Feminisme i democràcia van de la mà defensant una societat basada en la igualtat de totes les persones (72).

La desigualtat de gènere té nombroses cares i per superar moltes de les seves pitjors manifestacions és imprescindible una participació activa de les dones, l'empoderament a través de l'educació i l'ocupació professional remunerada, adoptar una actitud més crítica davant els valors rebuts i, finalment, és necessària no només la llibertat d'acció sinó també la llibertat de pensament: la llibertat per qüestionar i analitzar minuciosament les creences heretades i les prioritats tradicionals. En resumides paraules, històricament la dicotomia sexual de la nostra espècie és la petita diferència de la qual han sorgit grans problemes (73).

1.3.3. Fibromiàlgia en homes i dones:

Tal com s'ha comentat a l'apartat anterior en relació a les desigualtats entre homes i dones al camp de la salut, podem afirmar que la SFM n'és un exemple, però oposat a la patologia cardiovascular. Tenir un alt predomini femení ha comportat que els coneixements actuals sobre aquesta patologia s'hagin desenvolupat a partir d'investigacions en dones. Per tant, el coneixement d'aquesta malaltia en homes ha estat invisibilitzat, traduint-se en un infradiagnòstic (74). Aquesta diferència entre homes i dones en relació a la prevalença i al diagnòstic de la fibromiàlgia sembla estar associat amb l'estigma social de ser una malaltia majoritàriament femenina, i per tant, és menys probable que els homes siguin diagnosticats de fibromiàlgia que les dones (75, 76). Seguint amb aquesta premissa, un estudi a l'Iran (2017) va emfatitzar que la predominança femenina actual de la fibromiàlgia és errònia, concloent mitjançant el mètode de metaanàlisi que la prevalença és aproximadament del 3.98% en les dones i del 2.40% en els homes (77).

Si ens centrem en les investigacions realitzades sobre la fibromiàlgia fins l'actualitat, observem que aquest infradiagnòstic també hi ha repercutit, ja que la majoria d'autors indiquen en les limitacions dels seus estudis la carència de participants masculins (75, 78-80). Per tant, no sorprèn que siguin escassos els estudis que analitzen les possibles diferències d'aquesta malaltia en homes i dones.

Posant el focus en el dolor (principal símptoma de la SFM), alguns estudis suggereixen disparitats en la percepció d'aquest en funció del gènere (població en general), probablement a causa de factors biopsicosocials (hormones, funció opioide endògena, genètica, enfrontament davant del dolor i rols de gènere) (81,82). Per tant, si aquest fenomen succeeix en el dolor, no seria possible que també pugui produir-se en altres símptomes?

Si analitzem els estudis comparatius existents en homes i dones amb fibromiàlgia i les seves manifestacions clíniques observem que els homes són menys sensibles al dolor i refereixen menys punts sensibles (83-86). Tot i això, un estudi realitzat a Espanya (2013) que va explorar les diferències relacionades amb el gènere en l'experiència del dolor, l'activitat física i les mesures psicològiques amb grups de control sans (21 dones i 17 homes amb la SFM; 18 dones i 14 homes sans), no van observar diferències significatives en ninguna de les variables (87).

Els estudis sobre la fatiga de la SFM en funció del gènere també han donat resultats desiguals. Per exemple, un estudi espanyol de l'any 2012 (20 homes i 78 dones amb la SFM) va descobrir que els homes es fatigaven menys que les dones (88). D'altra banda, un estudi amb 40 homes i dones amb la SFM (Israel, any 2000) va detectar que els homes manifestaven més fatiga que les dones (84), mentre que un estudi dels

EUA de l’any 2004 (40 homes i 160 dones amb la SFM) no van trobar diferències significatives (86).

Els homes van manifestar més alteracions en els seus patrons de son en un estudi del 2013 (18 homes i 22 dones amb la SFM) (89), així com un deteriorament físic més gran i una pitjor qualitat de vida (estudi espanyol de l’any 2016; 384 dones i 21 homes amb la SFM) (84, 90).

Els estudis d'ansietat, d’estrès i depressió en homes i dones amb fibromiàlgia també ofereixen resultats sense diferències significatives (86).

Tots aquests resultats ens aproximen a millorar la comprensió de les manifestacions clíniques en homes i dones amb la SFM. Tot i això, queda camí per recórrer, ja que en la majoria d’aquests estudis la representació dels homes continua sent molt baixa, i una baixa representació masculina es tradueix en resultats imprecisos i poc fiables.

1.4. JUSTIFICACIÓ DE LA TEMÀTICA

L’elecció de la temàtica d’aquesta tesi doctoral sorgeix a partir d’aquesta predominança femenina de la SFM i l’evidència d’una casi inexistent perspectiva masculina. Aquest fet ens fa pensar en l’existència d’una vivència silenciosa de la patologia en els homes, suportant no només un patiment físic, sinó també emocional.

Els objectius plantejats en el següent apartat estan enfocats a explorar més en aquest tema per a conèixer millor les característiques sociodemogràfiques, clíniques i percepcions d’aquests pacients, ja que si homes i dones amb fibromiàlgia presenten diferències en la seva clínica, requeriran un diagnòstic, tractament i seguiment específic.

OBJECTIUS

OBJECTIUS

La temàtica d'aquesta tesi està centrada en la clínica de la síndrome de fibromiàlgia des d'una perspectiva de gènere. En primer lloc, ens vam centrar en el símptoma central de la fibromiàlgia, el dolor:

- Determinar com s'avalua el dolor a nivell quantitatiu i quin tipus de qüestionaris o escales s'utilitzen.
- Examinar si existeixen diferències en les característiques del dolor entre els homes i les dones que pateixen fibromiàlgia.
- Descriure com es conceptualitza o manifesta el dolor en les persones afectades per la patologia des d'un enfoc qualitatiu.

Tenint en compte l'escassa evidència en relació a les manifestacions clíniques dels pacients masculins afectats per la SFM, també s'han plantejat objectius particulars en homes:

- Descriure les experiències de dolor i fatiga en els homes amb SFM de dos països (Espanya i Estats Units d'Amèrica).
- Examinar els símptomes físics i psicològics de la SFM en homes.
- Analitzar els possibles efectes secundaris de les teràpies farmacològiques.
- Explorar l'impacte de la patologia comparant els resultats entre diferents grups sociodemogràfics.

METODOLOGIA

METODOLOGIA

La present tesi doctoral es va realitzar mitjançant compendi d’articles. Es va dur a terme una revisió d’abast (*o scoping review*), un estudi pilot transcultural i un estudi exploratori seqüencial mitjançant metodologia mixta. A continuació es detalla la metodologia utilitzada en cada cas:

3.1. FIBROMYALGIA SYNDROME PAIN IN MEN AND WOMEN: A SCOPING REVIEW

La revisió d’abast es va dur a terme segons les directrius (PRISMA) *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (91).

Criteris d'inclusió i d’exclusió:

Per estar inclosos, els estudis obtinguts havien d'estar publicats entre el gener del 2016 i el juliol del 2022, disponibles a text complet, escrits en anglès o espanyol i utilitzar tant metodologia quantitativa (estudis observacionals) com qualitativa. Es van excloure assaigs clínics, estudis de cas, articles d'opinió, intervencions o revisions sistemàtiques (amb metaanàlisi o sense) per assegurar una major qualitat de l'evidència.

Estratègia de cerca:

La cerca bibliogràfica es va realitzar durant els mesos de febrer i juliol de 2022. Les bases de dades electròniques utilitzades per a la cerca van ser PubMed, SCOPUS, CINAHL, Web of Science i Google Scholar. En cadascuna d'elles es va realitzar una cerca exhaustiva utilitzant una combinació de lògica booleana i truncaments per a les paraules clau següents: “pain”, “fibromyalgia”, “men”, “women”, “conceptualization”, “manifestation”, “score” i “assessment”.

La cadena de cerca que es va utilitzar a SCOPUS va ser: (fibromyalgia) AND (pain) AND (men OR women) AND (score OR manifestation OR concept* OR assessment).

Per a la base de dades PubMed, es va utilitzar: (((("Fibromyalgia"(Mesh)) AND "Pain" (Mesh)) AND "Men" (Mesh)) OR "Women" (Mesh)) OR ("Pain Measurement/classification"(Mesh) OR "Pain Measurement/instrumentation"(Mesh)OR"PainMeasurement/Nursing"(Mesh))OR"Pain Measurement/Psychology"(Mesh)) OR(score) OR (concept*) OR (manifestation) OR(assessment).

A CINAHL, Web of Science i Google Scholar les cerques booleanes utilitzades van ser: fibromyalgia AND pain AND (men OR women) AND (score OR manifestation ORconcept* OR assessment. L'estratègia completa de la cerca s'il·lustra a la **Figura 4**.

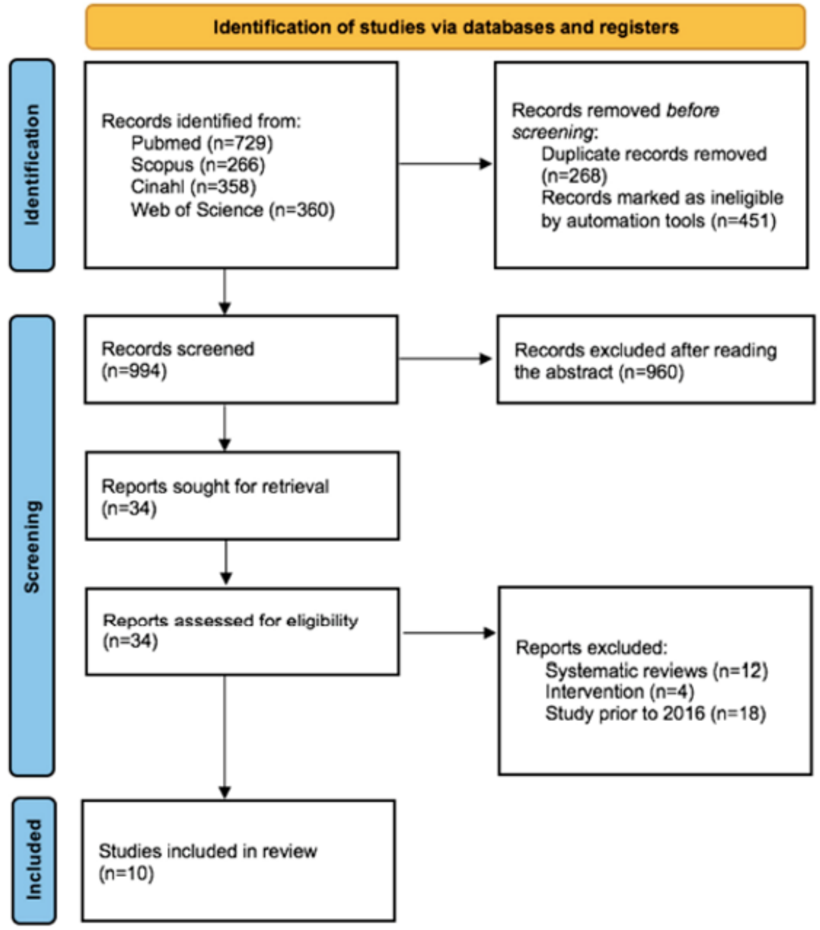

Figura 4. Diagrama de flux.

Selecció dels estudis:

Els estudis obtinguts es van importar i processar utilitzant el programari de gestió de referències bibliogràfiques Mendeley Desktop®. El procés de selecció dels articles definitius es va dur a terme mitjançant el cribratge en dos nivells: (1) revisió del títol i resum i (2) revisió del text complet. Els articles recuperats mitjançant la cerca a la base de dades van ser avaluats per les directores de tesi, que van realitzar l'avaluació llegint el títol i el resum proporcionats per l'estudiant de doctorat. La resta d’autors de la present revisió també van llegir els textos complets de totes les publicacions que no van poder excloure's a nivell de títol/resum, acordant quins complien els criteris d'inclusió/exclusió per a la revisió del text complet. Els desacords sobre la selecció dels estudis i l'extracció de les dades es van resoldre per consens entre tots autors (92).

Dades definitives:

Les dades es van obtenir mitjançant un formulari d'extracció de dades amb la següent informació: autor(s), any de publicació, país, disseny de l'estudi, objectiu(s) de l'estudi, participants (gènere i rang d'edat). En el cas dels estudis quantitatius, també s'han tingut en compte els tipus de qüestionaris utilitzats. En quant als articles qualitatius, per a la revisió de les experiències d'homes i dones amb la SFM, els autors van procedir a analitzar els discursos relacionats amb la conceptualització i manifestació del dolor mitjançant categories i subcategories. La determinació d’aquestes es va realitzar mitjançant dues fases:

1. Es van identificar afirmacions, respostes, aspectes individuals o grupals relacionats amb el dolor.
2. Després d'haver reconegut les categories, es va fer una segona anàlisi en profunditat que ens va permetre obtenir subcategories i poder catalogar-les (93).

3.2. FIBROMYALGIA PAIN AND FATIGUE SYMPTOMS IN SPANISH U.S. MEN

Disseny:

El present article va ser un estudi pilot transcultural de mètode mixt d'homes afectats per la SFM originaris d’Espanya i dels Estats Units d’Amèrica. Es van utilitzar dos qüestionaris per quantificar els símptomes, els tractaments i la qualitat de vida. L’ampliació d’aquests aspectes va ser possible mitjançant la metodologia qualitativa. La recopilació i anàlisi de les dades quantitatives i qualitatives es va efectuar simultàniament.

Participants i procediments:

Es va utilitzar un mostreig intencional per a l’obtenció de participants amb experiències diverses de dos països diferents. Es van incloure en aquest estudi els homes majors de 18 anys, amb diagnòstic de SFM i de nacionalitat espanyola o nord-americana. Els homes menors d'edat o diagnosticats de demència, esquizofrènia o trastorn bipolar van ser exclosos de l'estudi. En total, hi van participar 17 homes: 10 espanyols i 7 nord-americans. Els 17 participants van emplenar un formulari de consentiment informat (**ANNEX3)** i les avaluacions d’autoinforme (dades sociodemogràfiques i clíniques) (**ANNEX4**).

Procediment de recollida de dades a Espanya:

Els 10 participants masculins es van escollir d'una llista proporcionada per la Unitat de Reumatologia d'un hospital. Els grups focals es van dur a terme l’any 2018 en dos temps i amb un mes de diferència. Les sessions van ser dirigides per dos professionals sanitaris formats en tècnica qualitativa i un tercer observador familiaritzat amb la temàtica. Cada grup focal va durar 120 minuts, va ser enregistrat en àudio i posteriorment transcrit per un dels investigadors que va presenciar les dues reunions.

Procediment de recollida de dades als Estat Units d’Amèrica:

Els 7 participants masculins es van seleccionar d'una llista proporcionada per la Clínica de Fibromiàlgia i Fatiga Crònica d'un hospital. A causa de les limitacions per programar grups focals, les entrevistes individuals van ser l'opció més factible. Dos homes van completar una entrevista conjunta, mentre que els altres cinc van completar entrevistes individualitzades l’any 2018. Dos professionals sanitaris, tots dos formats en tècniques qualitatives van dirigir les entrevistes. Aquestes van durar entre 45 i 60 minuts, mentre que l’entrevista conjunta va durar 120 minuts. Les entrevistes van ser enregistrades i transcrites per un dels investigadors que va presenciar totes les reunions.

Entrevista qualitativa:

Es va utilitzar la mateixa guia d'entrevista als dos països, la qual consistia en quatre preguntes principals amb subpreguntes (**ANNEX5**). La primera pregunta, que representa el tema principal d'aquest estudi explorava les percepcions, els signes i els símptomes de la SFM. La segona pregunta examinava els sentiments, les reaccions i els recursos biopsicosocials utilitzats per fer front a la patologia. La tercera pregunta explorava les repercussions personals o les consideracions de qualsevol experiència de gènere, ja que la SFM es diagnostica principalment en dones. Finalment, la quarta pregunta investigava la realització d’exercici físic i els seus efectes sobre la salut.

Mesures quantitatives:

Es van dur a terme avaluacions d'autoinforme d'un sol ítem per mesurar les dades sociodemogràfiques, l'experiència dels símptomes i el seu control. També es va aportar el Qüestionari sobre l'Impacte de la Fibromiàlgia (FIQ) (**ANNEX6**), la puntuació total del qual oscil·la entre 0 i 100 (les puntuacions més altes representen un major deteriorament funcional) (94).

Anàlisi:

Les dades qualitatives es van analitzar mitjançant l’anàlisi de contingut i codificació inductiva. Els investigadors espanyols i nord-americans van codificar les transcripcions de les entrevistes dels seus respectius països. Per a l’anàlisi qualitatiu es va utilitzar el programa informàtic de gestió de dades Atlas.ti.

Les dades quantitatives es van resumir amb estadístiques descriptives. Les comparacions culturals es van realitzar mitjançant les proves t i les proves exactes de Fisher. Per a l’anàlisi quantitatiu es va utilitzar el programa SPSS, i la significació estadística es va fixar en $p<.05$ (95).

Es van realitzar reunions periòdiques entre els investigadors per debatre les comparacions transculturals i el significat dels codis (tots traduïts a l’anglès), així com per comprendre el significat i els contextos culturals als respectius grups.

Aprovació ètica:

Els Comitès d’Ètica de les dues universitats associades i dels centres sanitaris d’on es van extreure els participants van aprovar aquest estudi (**ANNEX7 i ANNEX8**).

3.3. SYMPTOMATOLOGY OF FIBROMYALGIA SYNDROME IN MEN: A MIXED-METHOD PILOT STUDY

Disseny:

L’últim article consistia en un estudi exploratori seqüencial amb metodologia mixta, on el component central és la metodologia qualitativa. Primer es van recollir i analitzar les dades qualitatives, seguides de les quantitatives, aquestes últimes es van utilitzar principalment per augmentar el valor de les dades qualitatives. L'anàlisi de les dades està connectat i la integració es produeix a la fase d'interpretació de les dades i discussió dels resultats (96).

Participants:

A la fase qualitativa, vam seleccionar 10 homes d’una llista proporcionada per la Unitat de Síndromes de Sensibilització Central de l’Hospital Santa Maria de Lleida. El mostreig utilitzat va ser no probabilístic o intencional (97). Tots els homes havien estat diagnosticats prèviament amb la SFM per un reumatòleg segons els criteris del Col·legi Americà de Reumatologia (CAR) (26). Es van escollir els homes que van acceptar participar a l'estudi. S'hi van incloure els participants majors de 18 anys, diagnosticats amb la SFM i residents a Espanya.

Per a la fase quantitativa, els criteris de selecció van ser els mateixos que per a la fase qualitativa. Es van poder obtenir 13 homes més (23 en total) de la mateixa llista. Cap participant no va abandonar l'estudi. Tots els participants van signar el consentiment informat (**ANNEX3**) i l’autorització per a l'enregistrament de veu (**ANNEX10**). El Comitè d’Ètica va aprovar aquest estudi (**ANNEX8**).

Recollida de dades qualitatives:

Es van utilitzar els grups focals. A diferència de les entrevistes semiestructurades, aquest mètode utilitza la interacció grupal com a mètode directe de recopilació de dades (98). Es van realitzar dos grups focals, cada sessió va durar aproximadament dues hores i es van realitzar entre els mesos de maig i juny de l’any 2018.

Un grup d'experts formats per un reumatòleg, tres membres del seu equip (Unitat de Reumatologia) i una infermera van avaluar la validesa i el contingut de les següents preguntes:

1. Quins símptomes físics i mentals li provoca aquesta malaltia al seu cos?
2. Quines dificultats detecta? Que li causa aquesta dificultat? Fatiga, dolor o altres símptomes?
3. Ha esmentat que s'aixeca cansat. ¿No se sent millor al matí després de dormir?
4. Quins fàrmacs pren actualment?

Les sessions es van dirigir per dues autores d'aquest estudi, ambdues professionals sanitàries. Una estudiant de doctorat i l’altra directora de tesi, aquesta última experta en anàlisi qualitatiu. Cada sessió es va gravar en àudio, els arxius obtinguts es van protegir amb contrasenya i van ser transcrits literalment per la primera autora. La recollida de dades va finalitzar quan es va assolir la seva saturació.

Anàlisi de dades qualitatives:

Les transcripcions es van examinar mitjançant anàlisi de contingut i codificació inductiva (93). La primera i l'última autora (presents als grups focals) van llegir i revisar les transcripcions; van ser necessàries moltes reunions conjuntes. Per arribar a un consens, es van celebrar reunions virtuals amb la resta d'autors, els quals van aportar diverses perspectives i experiències. Totes les opinions van ser escoltades, analitzades i discutides per arribar a un consens general. Els símptomes de la SFM i els efectes secundaris dels tractaments farmacològics es van codificar mitjançant el programa informàtic de gestió de dades Atlas.ti. A continuació, es van comparar els codis per identificar similituds i diferències i es van dividir en categories i subcategories. Totes les categories i subcategories inicials, així com les que van sorgir a posteriori, van estar processades per tot l'equip en conjunt.

Recollida de dades quantitatives:

Es va utilitzar un qüestionari ad hoc (**ANNEX4**) entre els mesos de març i maig de 2018 per obtenir les dades sociodemogràfiques dels participants. Les variables utilitzades al qüestionari van ser edat, estat civil, lloc de residència, nacionalitat, nivell educatiu, situació laboral i nombre de persones que conviuen al domicili. El qüestionari també incloïa el nivell de suport percebut pels pacients (de 0 a 10, a més valor millor nivell de suport), el dolor (de 0 a 10, a més valor pitjor umbral de dolor) i la salut (de 0 a 10, a més valor millor estat de salut), així com les teràpies farmacològiques utilitzades i el nivell de satisfacció dels pacients amb el seu tractament (de 0 a 10, a més valor major satisfacció).

Per analitzar l'impacte de la patologia es va utilitzar el Qüestionari d'Impacte de la Fibromiàlgia (FIQ), aquest té un ampli ús en l'àmbit sanitari per avaluar l'estat, l'evolució i el pronòstic dels pacients amb la SFM (99). Investigacions anteriors han demostrat que el FIQ és un instrument vàlid per valorar l'impacte de la SFM (94). Consta de 10 ítems, cadascun avaluat en una escala de 0 a 10, on la màxima puntuació possible és 100 (com més elevada és la puntuació, més impacte té la malaltia sobre la persona). El FIQ pregunta a la persona sobre la seva capacitat per realitzar determinades tasques durant la setmana anterior, com quants dies es van sentir bé, quants dies van faltar a la feina a causa de la SFM i en quina mesura el dolor i la resta de símptomes els va dificultar en la realització de les seves funcions diàries.

Anàlisi de dades quantitatives:

Es va efectuar un anàlisi descriptiu de freqüències i percentatges per reflectir les variables sociodemogràfiques i els tractaments farmacològics dels participants. Per detectar diferències estadísticament significatives en la puntuació del FIQ segons les variables categòriques, es van utilitzar les proves no paramètriques de Mann-Whitney (dos grups) i Kruskal-Wallis (grups múltiples) (100). La significació estadística d'aquestes proves es va fixar en $p<.05$. Les proves no paramètriques es basen en mesures de la posició de la mostra i no en paràmetres estadístics, per la qual cosa són menys sensibles als valors atípics. En cas de no normalitat, els resultats de les proves no paramètriques són més fiables. En mostres "petites" com les d'aquest estudi les proves no paramètriques són més sòlides. Les dades es van recollir i es van depurar utilitzant un full de càlcul de Microsoft Office Excel. L'anàlisi estadístic es va realitzar amb SPSS Statistics v.23.0.

RESULTATS

RESULTATS

Primer article publicat:

Ruschak I, Montesó-Curto P, Rosselló L, Aguilar Martín C, Sánchez-Montesó L, Toussaint L. Fibromyalgia Syndrome Pain in Men and Women: A Scoping Review. Healthcare [Internet]. 2023 Jan 11;11(2):223. http://dx.doi.org/10.3390/healthcare11020223

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Review

Fibromyalgia Syndrome Pain in Men and Women: A Scoping Review

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Abstract: Fibromyalgia syndrome (FMS) is a chronic musculoskeletal disorder of unknown etiology that affects up to 5.0% of the world population. It has a high female predominance, between 80 and 96%. Due to the low number of diagnosed men, research work has focused mainly on women. The extensive body of literature on sex differences in pain in the general population suggests that men and women differ in their responses to pain, with greater sensitivity to pain and a higher risk of clinical pain commonly observed among women. This review aims to: (1) determine how pain is assessed or what types of questionnaires are used, (2) examine whether there are differences in pain characteristics between men and women with FMS and (3) describe how pain is conceptualized or manifested in patients at a qualitative level. In this study, the scoping review method of articles published in the last 5 years (2016–2022) was used. Ten articles were included. The most used questionnaires and scales to assess pain were the PVAS (Pain Visual Analogue Scale) and the FIQ (Fibromyalgia Impact Questionnaire). On the other hand, five categories were obtained: (1) qualities of pain, (2) uncertainty and chaos, (3) pain as an aggravating factor, (4) adaptation to the new reality and (5) the communication of pain. It has been observed that both subjective perception and widespread pain are higher in women. Men, on the other hand, have a worse impact of the pathology, more painful experiences and more catastrophic thoughts about pain. An updated knowledge of pain in FMS and whether it differs according to sex would be beneficial for clinicians to make an earlier diagnosis and treatment and, in turn, benefit patients suffering from this chronic disease.

Keywords: fibromyalgia; pain; assessment; experience; review

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1. Introduction

Fibromyalgia syndrome (FMS) is a chronic musculoskeletal disorder of unknown etiology that affects up to 5.0% of the world's population [1,2]. The incidence is greater in Europe (2.64%) than in America (2.41%) or parts of Asia (1.62%) [3]. The percentages fluctuate from country to country because the ways of determining them are diverse, as are the age groups included and the differentiations in sociocultural standards. Consequently, for example, the prevalence in Spain is about 2.4%, while in the USA it is 2% [4]. This pathology greatly alters individual health-related quality of life. The vast bulk of affected people end up suffering from diverse kinds of disability, isolation, stigmatization, lack of validity of their diagnosis and concern about their long-term prognostication [5].

Fibromyalgia syndrome has a high female predominance, accounting for 80–96% [4,6]. Still, a systematic review of FMS in men and women worldwide described that the predominance of the condition is similar for both sexes, i.e., approximately 3.98% in women and 2.40% in men [7]. Due to the low number of diagnosed men, research has mainly focused on women, ignoring the study of this syndrome in men. The difference between men and women in the prevalence and diagnosis of FMS appears to be related to the social stigma related with it being a mostly female illness and to the social and cultural characteristics of Western countries, where men are less likely to go to a specialist for chronic pain symptoms, which limits the formulation of a correct diagnosis [8,9].

The extensive body of the literature on sex disparities in pain in the general population strongly suggests that men and women differ in their responses to pain, with greater pain sensitivity and higher risk of clinical pain commonly observed among women [10,11]. Thus, the idea of sex differences in FMS symptoms gains clarity. If women and men with FMS present with a different impact and intensity of symptoms, it would be advisable to diagnose and treat on an individualized basis.

Fibromyalgia syndrome presents with a wide variety of signs and symptoms, making it difficult to diagnose. So far, there are no biomarkers of the disease and clinical evaluation and patient descriptions are used. Continuous efforts have been made to improve the diagnostic accuracy of FMS [12]. The 2016 American College of Rheumatology criteria are the most accurate and used in clinical practice. According to the Wolfe et al. definition, FMS is a condition that involves widespread pain in at least four of five regions (left upper region, right upper region, left lower region, right lower region, axial region) and the symptoms must have been present for at least 3 months. Also, the widespread pain index (WPI) must be equal to or greater than seven and the symptom severity scale (SSS) score must be equal to or greater than five. Alternatively, the integrated pain management (IPM) must be between four and six and the SSS score must be equal to or greater than nine. Furthermore, the diagnosis is valid independently of other diagnoses; i.e., FMS does not exclude the presence of other clinically important diseases [13].

As for treatment, it is not curative, and its aim is to reduce symptoms in order to provide greater functionality to the person [14]. As it is a very complex condition, all authors conclude that the treatment of FMS should be holistic, comprehensive and with a multidisciplinary approach [15].

Pain is the central symptom of FMS, which coexists with many other symptoms such as fatigue, insomnia, cognitive dysfunction and mental health disorders [16]. Fibromyalgia syndrome pain is defined as chronic, meaning that it persists or recurs for more than three months [17]. It mainly affects the musculoskeletal system and is present throughout the body, from the head to the feet [18]. Usually, initially the pain is localized, but over time it affects many muscle groups. It is characterized by being persistent with variable intensity, while it can often be described as a burning sensation or stabbing pain. There is oversensitivity to normally painful stimuli, such as pressure or heat (hyperalgesia) and painful sensation to normally non-painful stimuli, such as touch (allodynia) [19].

The fact that FMS presents chronic pain without any obvious peripheral tissue damage has given rise in recent years to the new concept of nondisciplastic pain, also known as nocioperception, which comes from the Latin nocere: pain that activates peripheral nociceptors without clear evidence of actual or threatening tissue damage.

The type, location and severity of pain depend on several modulating factors, the most important of which are physical exercise, comorbidities such as obesity and temperature variations [20].

The present scoping review has focused the study of pain in men and women in FMS. Considering that it is a disabling symptom that is present daily in people with FMS, we believe that it is of vital importance to find out its characteristics known to date and thus be able to provide a more updated view to clinicians (especially in Primary Care) to provide earlier diagnosis and treatment and, in turn, benefit patients suffering from this chronic disease.

Our aims focused on: (1) determining how pain is assessed or what types of questionnaires are used, (2) examining whether there are differences in pain characteristics between men and women with FMS and (3) describing how pain is conceptualized or manifested in the participants at a qualitative level.

2. Materials and Methods

This scoping review was undertaken in line with the Preferred Reporting Items for Systematic Reviews (PRISMA) guidelines for scoping reviews [21]. The Preferred Reporting Items for Scoping Reviews (PRISMA-ScR) Checklist can be found in Appendix A.

The revision protocol registration number is 10.37766/inplasy2022.12.0105, available at https://inplasy.com/inplasy-2022-12-0105/.

2.1. Inclusion Criteria

The identified studies were subjected to inclusion and exclusion criteria. To be included, studies had to be published from January 2016 to July 2022, available in full text, written in English or Spanish and use both quantitative (observational studies) and qualitative methodology. Clinical trials, case studies, opinion articles, interventions, or systematic reviews (with or without meta-analysis) were excluded to ensure higher quality evidence.

2.2. Search Strategy

The bibliographic search was carried out during the months of February and July 2022. The electronic databases used for the search were PubMed, SCOPUS, CINAHL, Web of Science and Google Scholar. In each of these, an exhaustive search was performed using a combination of Boolean logic and truncations for the following keywords: "pain", "fibromyalgia", "men", "women", "conceptualization", "manifestation", "score" and "assessment".

The following search string was used for SCOPUS: (fibromyalgia) AND (pain) AND (men OR women) AND (score OR manifestation OR concept* OR assessment). For the PubMed database, we used (((("Fibromyalgia"(Mesh)) AND "Pain"(Mesh)) AND "Men"(Mesh)) OR "Women"(Mesh)) OR ("Pain Measurement/classification"(Mesh) OR "Pain Measurement/instrumentation"(Mesh) OR "Pain Measurement/nursing"(Mesh) OR "Pain Measurement/psychology"(Mesh)) OR (score) OR (concept*) OR (manifestation) OR (assessment). For the CINAHL, Web of Science and Google Scholar Boolean we used the terms fibromyalgia AND pain AND (men OR women) AND (score OR manifestation OR concept* OR assessment. The complete search strategy is illustrated in Figure 1.

2.3. Selection of the Studies

The studies obtained were imported and processed using the bibliographic reference management software Mendeley Desktop® version 1.19.4 (London, UK).

The selection process consisted of two levels of screening of the articles obtained: (1) a review of the title and abstract and (2) a review of the full text.

The articles retrieved by the database search were evaluated by the PhD supervisor, who made the evaluation by reading the title and abstract provided by the PhD student. The previous authors also read the full texts of all publications that could not be excluded at the title/abstract level. They reviewed the abstracts/titles of the articles and agreed on which met the inclusion/exclusion criteria for full-text review. Disagreements about study selection and data extraction were resolved by consensus by the majority of the authors of the present review or by using an external author [22].

2.4. Data Extraction

Data were extracted from full-text articles that met the objectives and inclusion criteria. Definitive data were obtained using a data extraction form with the following information:

author(s), year of publication, country, study design, study objective(s), participants (sex and age range). In the case of quantitative studies, the types of questionnaires used were also considered. In the qualitative articles, for the review of the experiences of men and women with FMS, the authors proceeded to analyze the discourses related to the conceptualization or manifestation of pain by means of categories and subcategories.

2.5. Process Followed to Determine the Categories and Subcategories of Pain in the Qualitative Studies

We progressed with two phases to obtain and show the presence in the verbal explanations and experiences of people with FMS of the categories and possible subcategories in each study: (1) statements, responses, individual or group aspects related to pain were identified; (2) after having recognized the categories, a second in-depth analysis was carried out that allowed us to get subcategories and to be able to catalogue them [23].

3. Results

Our search strategy resulted in a total of 10 final references after the selection process, as can be seen in Figure 1.

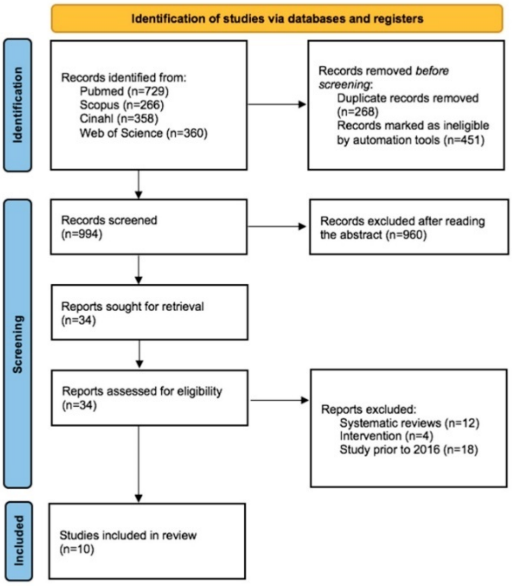

Figure 1. Flow diagram.

All selected studies with their main results are shown in Table 1.

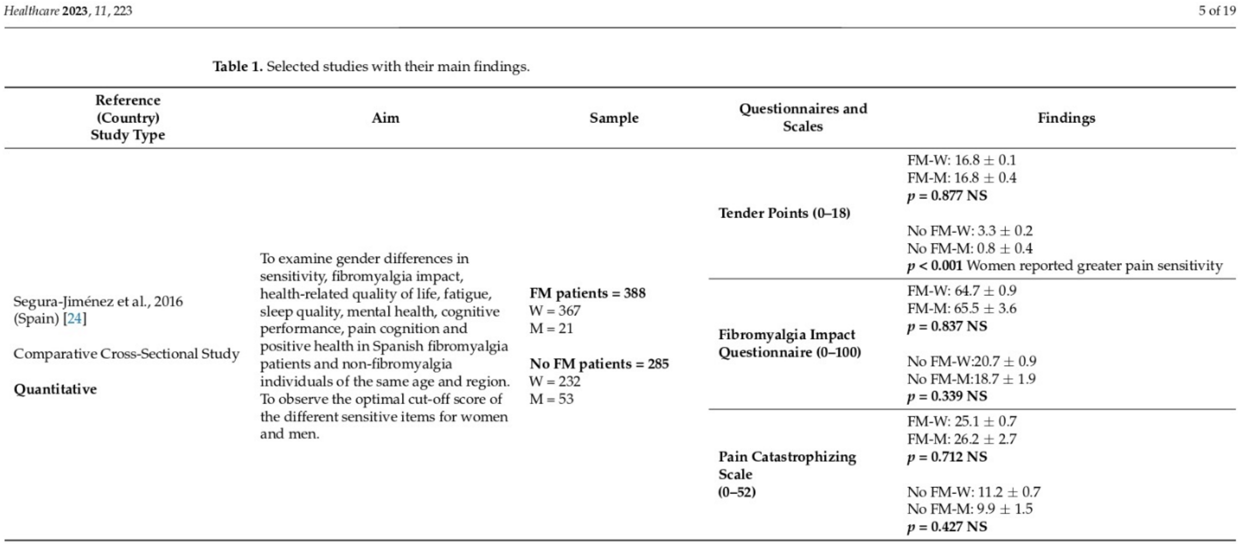

Table 1. Selected studies with their main findings.

Reference (Country) Study Type	Aim	Sample	Questionnaires and Scales	Findings
Segura-Jiménez et al., 2016 (Spain) [24] Comparative Cross-Sectional Study **Quantitative**	To examine gender differences in sensitivity, fibromyalgia impact, health-related quality of life, fatigue, sleep quality, mental health, cognitive performance, pain cognition and positive health in Spanish fibromyalgia patients and non-fibromyalgia individuals of the same age and region. To observe the optimal cut-off score of the different sensitive items for women and men.	**FM patients = 388** W = 367 M = 21 **No FM patients = 285** W = 232 M = 53	**Tender Points (0–18)**	FM-W: 16.8 ± 0.1 FM-M: 16.8 ± 0.4 **p = 0.877 NS** No FM-W: 3.3 ± 0.2 No FM-M: 0.8 ± 0.4 **p < 0.001** Women reported greater pain sensitivity
			Fibromyalgia Impact Questionnaire (0–100)	FM-W: 64.7 ± 0.9 FM-M: 65.5 ± 3.6 **p = 0.837 NS** No FM-W:20.7 ± 0.9 No FM-M:18.7 ± 1.9 **p = 0.339 NS**
			Pain Catastrophizing Scale (0–52)	FM-W: 25.1 ± 0.7 FM-M: 26.2 ± 2.7 **p = 0.712 NS** No FM-W: 11.2 ± 0.7 No FM-M: 9.9 ± 1.5 **p = 0.427 NS**

Table 1. *Cont.*

Reference (Country) Study Type	Aim	Sample	Questionnaires and Scales	Findings
Wolfe et al., 2018 (EE. UU.) [25] Longitudinal Study **Quantitative**	To compare CritFM with ClinFM to investigate gender and other biases in fibromyalgia diagnosis.	**FM patients = 4342** W = 2171 M = 2171 Age = 56.6 ± 12.6 years W = 59.7 ± 13.5 years M = 64.9 ± 12.0 years	**Widespread Pain Index (0–19)**	FM-W:5.9 ± 0.7 FM-M:4.9 ± 1.3
			Symptom Severity Scale (0–12)	FM-W = 4.3 ± 0.7 FM-M = 3.4 ± 1.1
			Polysymptomatic Distress (0–31)	FM-W = 10.2 ± 1.6 FM-M = 8.2 ± 1.6
			Pain Visual Analogue Scale (0–10)	FM-W = 3.9 ± 0.3 FM-M = 3.4 ± 1.0
			Higher values of pain and symptom severity were detected in women relative to men. Since FMS is defined based on pain and symptom severity, women will always be more likely to be diagnosed. In short, there is a relationship between being female and being diagnosed with FMS.	
Prateepavanich et al., 2018 (Thailand) [26] Cross-Sectional Study **Quantitative**	To obtain demographic data, clinical characteristics and investigate correlations of clinical features in Thai patients with FMS.	**FM patients = 71** W = 69 M = 2 Age = 44.83 (±10.81) years	**Pain Visual Analogue Scale (0–100)**	63.39 ± 17.8
			Fibromyalgia Impact Questionnaire (0–100)	45.48 ± 16.83
De Roa et al., 2018 (France) [27] Comparative Cross-Sectional Study **Quantitative**	To characterize childhood experiences, perceived lack of parental affection, hypersensitivity to stimuli, life stressors, anxio-depression and ergomania.	**FM-W patients = 44** **Migraine-W patients= 34** Age = 45 ± 12 years	**Pain Visual Analogue Scale (0–10)**	Better moments: FM-W = 3.3 ± 1.9 Migraine-W= 1.8 ± 2.3 Worse moments: FM-W = 8.9 ± 1.4 Migraine-W= 8.7 ± 1.2 NS Scores

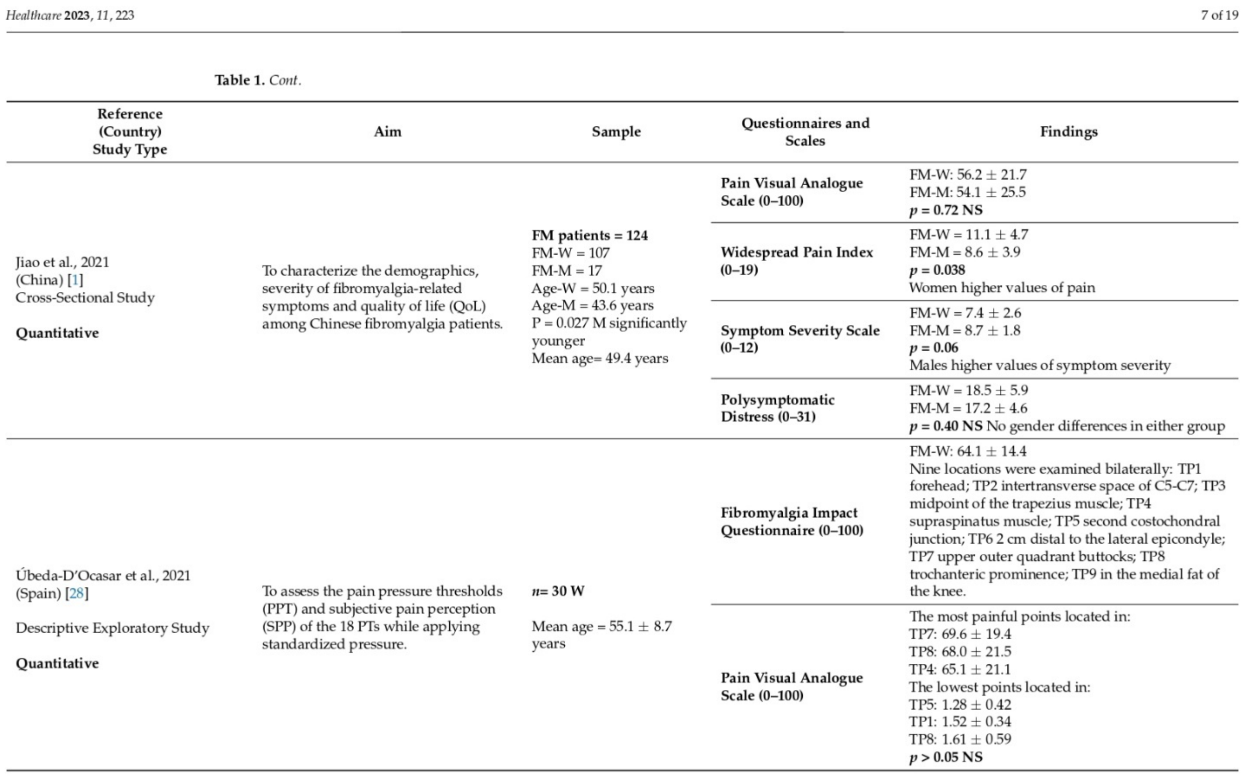

Table 1. *Cont.*

Reference (Country) Study Type	Aim	Sample	Questionnaires and Scales	Findings
Jiao et al., 2021 (China) [1] Cross-Sectional Study **Quantitative**	To characterize the demographics, severity of fibromyalgia-related symptoms and quality of life (QoL) among Chinese fibromyalgia patients.	**FM patients = 124** FM-W = 107 FM-M = 17 Age-W = 50.1 years Age-M = 43.6 years P = 0.027 M significantly younger Mean age= 49.4 years	**Pain Visual Analogue Scale (0–100)**	FM-W: 56.2 ± 21.7 FM-M: 54.1 ± 25.5 **$p = 0.72$ NS**
			Widespread Pain Index (0–19)	FM-W = 11.1 ± 4.7 FM-M = 8.6 ± 3.9 **$p = 0.038$** Women higher values of pain
			Symptom Severity Scale (0–12)	FM-W = 7.4 ± 2.6 FM-M = 8.7 ± 1.8 **$p = 0.06$** Males higher values of symptom severity
			Polysymptomatic Distress (0–31)	FM-W = 18.5 ± 5.9 FM-M = 17.2 ± 4.6 **$p = 0.40$ NS** No gender differences in either group
Úbeda-D'Ocasar et al., 2021 (Spain) [28] Descriptive Exploratory Study **Quantitative**	To assess the pain pressure thresholds (PPT) and subjective pain perception (SPP) of the 18 PTs while applying standardized pressure.	***n*= 30 W** Mean age = 55.1 ± 8.7 years	**Fibromyalgia Impact Questionnaire (0–100)**	FM-W: 64.1 ± 14.4 Nine locations were examined bilaterally: TP1 forehead; TP2 intertransverse space of C5-C7; TP3 midpoint of the trapezius muscle; TP4 supraspinatus muscle; TP5 second costochondral junction; TP6 2 cm distal to the lateral epicondyle; TP7 upper outer quadrant buttocks; TP8 trochanteric prominence; TP9 in the medial fat of the knee.
			Pain Visual Analogue Scale (0–100)	The most painful points located in: TP7: 69.6 ± 19.4 TP8: 68.0 ± 21.5 TP4: 65.1 ± 21.1 The lowest points located in: TP5: 1.28 ± 0.42 TP1: 1.52 ± 0.34 TP8: 1.61 ± 0.59 **$p > 0.05$ NS**

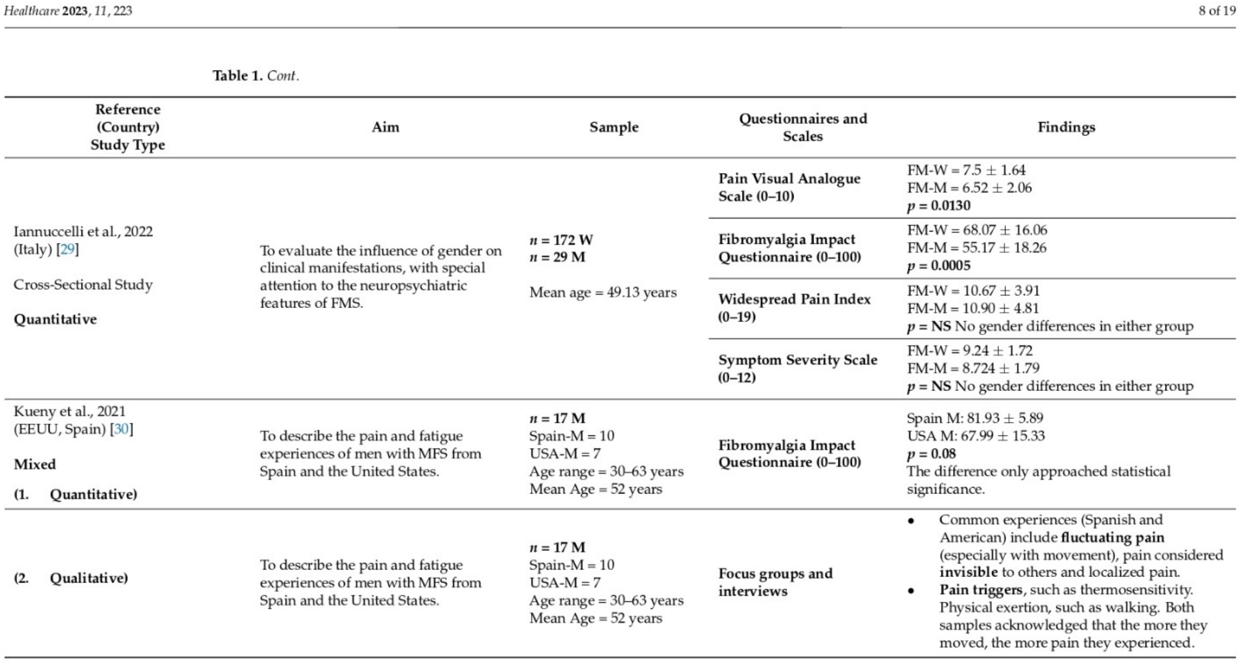

Table 1. *Cont.*

Reference (Country) Study Type	Aim	Sample	Questionnaires and Scales	Findings
Iannuccelli et al., 2022 (Italy) [29] Cross-Sectional Study **Quantitative**	To evaluate the influence of gender on clinical manifestations, with special attention to the neuropsychiatric features of FMS.	**n = 172 W** **n = 29 M** Mean age = 49.13 years	**Pain Visual Analogue Scale (0–10)**	FM-W = 7.5 ± 1.64 FM-M = 6.52 ± 2.06 **p = 0.0130**
			Fibromyalgia Impact Questionnaire (0–100)	FM-W = 68.07 ± 16.06 FM-M = 55.17 ± 18.26 **p = 0.0005**
			Widespread Pain Index (0–19)	FM-W = 10.67 ± 3.91 FM-M = 10.90 ± 4.81 **p = NS** No gender differences in either group
			Symptom Severity Scale (0–12)	FM-W = 9.24 ± 1.72 FM-M = 8.724 ± 1.79 **p = NS** No gender differences in either group
Kueny et al., 2021 (EEUU, Spain) [30] **Mixed** **(1. Quantitative)**	To describe the pain and fatigue experiences of men with MFS from Spain and the United States.	**n = 17 M** Spain-M = 10 USA-M = 7 Age range = 30–63 years Mean Age = 52 years	**Fibromyalgia Impact Questionnaire (0–100)**	Spain M: 81.93 ± 5.89 USA M: 67.99 ± 15.33 **p = 0.08** The difference only approached statistical significance.
(2. Qualitative)	To describe the pain and fatigue experiences of men with MFS from Spain and the United States.	**n = 17 M** Spain-M = 10 USA-M = 7 Age range = 30–63 years Mean Age = 52 years	**Focus groups and interviews**	• Common experiences (Spanish and American) include **fluctuating pain** (especially with movement), pain considered **invisible** to others and localized pain. • **Pain triggers**, such as thermosensitivity. Physical exertion, such as walking. Both samples acknowledged that the more they moved, the more pain they experienced.

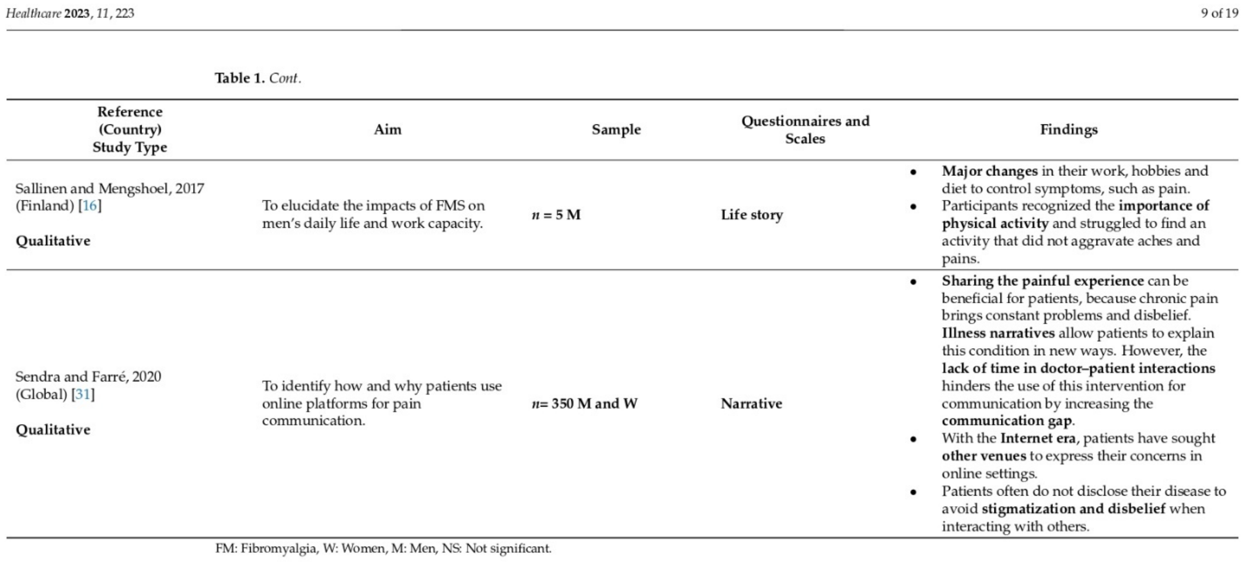

Table 1. *Cont.*

Reference (Country) Study Type	Aim	Sample	Questionnaires and Scales	Findings
Sallinen and Mengshoel, 2017 (Finland) [16] **Qualitative**	To elucidate the impacts of FMS on men's daily life and work capacity.	***n* = 5 M**	**Life story**	• **Major changes** in their work, hobbies and diet to control symptoms, such as pain. • Participants recognized the **importance of physical activity** and struggled to find an activity that did not aggravate aches and pains.
Sendra and Farré, 2020 (Global) [31] **Qualitative**	To identify how and why patients use online platforms for pain communication.	***n*= 350 M and W**	**Narrative**	• **Sharing the painful experience** can be beneficial for patients, because chronic pain brings constant problems and disbelief. **Illness narratives** allow patients to explain this condition in new ways. However, the **lack of time in doctor–patient interactions** hinders the use of this intervention for communication by increasing the **communication gap**. • With the **Internet era**, patients have sought **other venues** to express their concerns in online settings. • Patients often do not disclose their disease to avoid **stigmatization and disbelief** when interacting with others.

FM: Fibromyalgia, W: Women, M: Men, NS: Not significant.

Of the 10 studies that met the inclusion criteria, 7 were quantitative [1,24–29], 2 qualitative [16,31] and 1 mixed (qualitative methodology together with quantitative methodology) [30]. Sample sizes ranged from 5 to 4342 participants. The sum of all participants with FMS from the studies was 5222 (2262 males and 2960 females); of these, the female sex predominated with 56.7%. In all studies, the age range was 18 years or older; older subjects had a mean age of 56.6 ± 12.6 years.

Two quantitative studies worked only with women [27,28] and two studies featured only male participants; one qualitative [16] and one mixed [30]. The other six studies worked with mixed-sex participants [1,24–26,29,31].

The predominant countries were Spain with three studies [24,28,30] and the United States with two [25,30]. The study by Kueny et al. was performed in two different countries, Spain and the United States, with the aim of being able to observe pain in different cultural contexts [30]. The patients came from the United States [25,30], Spain [24,27,29,31], Finland [16], France [27], Thailand [26], China [1] and Italy [29]. The Spanish study by Sendra and Farré contained patients from all over the world, as they worked with the Instagram social network [31].

The pain assessment of the selected quantitative studies included a wide variety of questionnaires and scales (Table 2) such as the Fibromyalgia Impact Questionnaire (FIQ), total number of Tender Points (TP), Pain Catastrophizing Scale (PCS), Widespread Pain Index (WPI), Symptom Severity Scale (SSS), Polysymptomatic Distress (PSD) and Pain Visual Analogue Scale (PVAS). The most used were the PVAS (out of 10 or out of 100) and the FIQ.

Table 2. Questionnaires and scales used to measure outcomes in selected studies.

N°	Category	Questionnaires and Scales
1	Total number of Tender Points	TP (0–18): Patients were considered to have fibromyalgia if they had 11 or more positive tender points [24].
2	Fibromyalgia Impact Questionnaire	FIQ (0–100): Comprises 21 individual questions with a rating scale of 0 to 10. These questions comprise three different domains: function, overall impact and symptoms score (ranging 0–30, 0–20 and 0–50, resp.). The FIQR total score ranges from 0 to 100, with a higher score indicating greater impact [32].
3	Pain Catastrophizing Scale	PCS (0–52): Was used to assess painful experiences and thoughts or feelings about pain. It contains 13 items on a 5-point scale. For this study, the total score (ranging from 0 to 52) was used, where higher score represents a more negative appraisal of pain [24].
4	Widespread Pain Index	WPI (0–19): The widespread pain index is a summary count of the number of 19 painful regions, a self-reported list of painful regions [29].
5	Symptom Severity Scale	SSS (0–12): The symptom severity scale is the sum of the severity scores of three symptoms (fatigue, waking without rest and cognitive symptoms) (0–9) plus the sum (0–3) of the number of the following symptoms that have bothered the patient and occurred during the previous 6 months: (1) headaches (0–1), (2) lower abdominal pain or cramps (0–1) and (3) depression (0–1 [29]).
6	Polysymptomatic Distress	PSD (0–31): The polysymptomatic discomfort scale (known as FM severity), is the sum of the WPI and SSS. The PSD measures the magnitude and severity of FM symptoms [33].
7	Pain Visual Analogue Scale	PVAS (0–10) or (0–100): Assesses the subjective perception of global pain (from 0, no pain, to 10 or 100, maximum pain) [34].

TP: Tender Points, FIQ: Fibromyalgia Impact Questionnaire, PCS: Pain Catastrophizing Scale, WPI: Widespread Pain Scale, SSS: Symptom Severity Scale, PSD: Polysymptomatic Distress, PVAS: Pain Visual Analogue Scale.

On the other hand, qualitative studies used tools such as focus groups, interviews and narrative and life history to describe how pain manifests itself in men and women with FMS.

The PVAS and WPI were higher in female participants [1,25,29]. In Wolfe's study, males were older (64.9 ± 12.0 years) than females (59.7 ± 13.5 years) [25]. In contrast, in the Jiao study men were significantly younger $p = 0.027$ (43.6 years) than women (50.1 years) [1]. The FIQ and PCS were somewhat higher in men than in women in the Segura-Jiménez study, [24] but without statistical significance. There were no differences for the rest of the scales.

The review of the qualitative literature allowed us to detect the presence of categories related to pain. A total of five categories were obtained: (1) qualities of pain, (2) uncertainty and chaos, (3) pain as an aggravating factor, (4) adaptation to the new reality and (5) communication of pain.

In the first category—pain qualities—we integrated the results associated to the pain characteristics reported by patients in the chosen studies. The second category—uncertainty and chaos—describes how patients cope with chronic pain. The third category—pain as an aggravating factor—reflects the different causes of chronic pain in patients. In the fourth category—adaptation to the new reality—we show how patients make vital changes to continue living with pain. Finally, in the last category—pain communication—we show the importance of expressing emotions and sharing the experience of pain as a benefit for the person.

3.1. Pain Qualities

In the study by Sallinen and Mengshoel men affected by FMS vividly described their pain with fluctuating intensity from day to day [16]. On good days the pain was almost non-existent, but on bad days it could become agonizing. On the other hand, the male participants in Kueny's study also described the pain as excruciating, a "pain [through] the soul". Yet, their worst pain was reported as shooting and location-specific rather than being described as widespread or generalized as we are accustomed to reading about in fibromyalgia patients [30].

3.2. Uncertainty and Chaos

The patients in the Sendra and Farré study manifest continuous uncertainty when suffering from an incurable disease that manifests with chronic pain. Everyday actions become major obstacles [31]. Since this pathology is sometimes difficult to diagnose, most patients used narratives of chaos to talk about their chronic pain. They feel they are losing control of their lives and, at the same time, this loss of control ends up affecting their identity. These patients mostly reflect that they do not perceive a positive evolution of their health, although a small percentage are confident about their future despite all their problems. In the context of this disease, the existence of this duality is manifested in chronic diseases as they tend to oscillate between periods of exacerbation, in which symptoms such as pain worsen, and periods of quiescence, in which disability is less disturbing.

If we focus only on male patients, this uncertainty also manifests itself; Kueny described that men were surprised by the sporadic nature of their pain, a constant pain that is ever present in their lives and makes it difficult for them to make plans [30].

3.3. Pain as an Aggravating Factor

Selected studies show that patients are not only threatened by fibromyalgia pain but also by the pain as an aggravator of other symptoms [16,30]. Patients describe problems falling asleep, which in turn causes tiredness and daytime fatigue [30]. Pain and their lack of energy limit them in all levels of their social relationships [31]. They describe having changes in their personality, feeling more irritable with others and even being disappointed with themselves for not being able to fulfil their roles as they would like or as they did before [30].

According to Sendra and Farré, patients with chronic pain end up isolated and stigmatized, as presenting "invisible pain" causes them emotional distress by having to repeatedly demonstrate their disability to others, both people close to them and healthcare professionals [31]. The study by Kueny also reflects how difficult the invisible nature of the pain they experience is for their patients and they also acknowledged having to be their own advocates in the face of others who did not believe them [30].

3.4. Adaptations to the New Reality

People suffering from chronic pain tend to seek a balance between health and illness, between ability and disability [16]. According to the selected qualitative studies, patients tend to look for which are the aggravating factors of their pain in order to decrease or eliminate them; for example, with physical exertion such as walking, patients explained that the more they moved, the more pain they experienced; consequently, they had to manage their body movements well during the day [30]. Patients expressed having to make major changes in their lives in order to "live with their pain": changes in work, role, personal life, family, routines, etc. [31].

3.5. Communication of Pain

The previous categories reflect how chronic pain causes drastic changes in the lives of people who suffer from it, and although pain is presented as the main enemy of these people, studies reflect that it is vitally important to talk about it. Sendra and Farré suggest that sharing the experience is very beneficial, either self-reported, i.e., verbally, or with the help of assessment tools. It should be kept in mind that suffering chronic pain is a recurrent experience with clearly emotional components that have to be drained in an individualized way for the biopsychosocial well-being of the person [31].

4. Discussion

This review provides an updated synthesis of fibromyalgia pain from different approaches to better understand it.

As for the way in which pain has been assessed, the results show that the PVAS (which assesses the subjective perception of global pain) and the FIQ (which assesses the impact of illness) were the most used tools. Despite this, we believe that the consideration of the PVAS in terms of its structure and the patient's behavior on the scale casts doubt on its validity. It is linear and is prone to biases; for these reasons, we consider that its use should be limited. On the other hand, we are confident in the use of the FIQ, as it assesses the status, progress and prognosis of patients and is an instrument that is extensively used in the healthcare setting [32].

We contrasted whether there were differences in pain characteristics according to sex. We detected that the subjective perception of pain was higher in women, as was the generalized pain index (WPI). In contrast, FMS impact was higher in men, as were painful experiences and PCS pain thoughts. The worst Pain Visual Analogue Scale scores are obtained by women both in studies analyzing only women [27,28] and in studies studying men and women [1,25,29]. The worst FIQ scores are those obtained by Kueny in male patients with FMS [30]. In Ubeda-D'Ocasar's study only with women, the highest PVAS values were present in the supraspinatus muscle, the trochanteric prominence and the upper outer quadrant of the buttocks, respectively [28].

Wolfe's study with men and women exposed low PVAS values in both sexes and no significant differences [25]. The Chinese study by Jiao also did not detect significant differences between the PVAS of their men and women [1]. In contrast, the mixed study by Iannuccelli showed high PVAS values in women with statistical significance [29], although it should be noted that in all three studies the representation of men with respect to women was very low.

The FIQ values in the mixed study by Segura-Jiménez [24] were elevated, but there were no significant differences among men and women with FMS. In contrast, in the Italian study by Iannucceli, women had higher FIQ values than men [29]. Úbeda-D'Ocasar's study [28] only with women (n = 30 W) also presented high values with the FIQ, although, the values were higher in the male study (n = 17 M) by Kueny and colleagues. The FIQ was also compared by country (USA or Spain) to detect whether there were cultural contrasts in different health policies. Spanish men had higher values, but the differences only approached statistical significance. Demographic factors do not directly influence pain perception but represent valuable individual difference factors [30]. Although several examples of epidemiological evidence have shown that chronic pain conditions are more predominant among women than among men, [35,36] in our review we only detected this in Jiao's study, which revealed significant differences in pain according to sex. Women with FMS had worse values in the WPI questionnaire (generalized pain) and men with FMS had worse values in the SSS (severity of symptoms) [1].

Finally, through the use of qualitative methodology this review wanted to describe how pain is conceptualized or manifested in affected individuals. Pain, according to male participants in the studies by Sallinen and Mengshoel [16] and Kueny, has qualities of being fluctuating. Also, agonizing and unbearable at the worst times. Unlike other studies, the pain of the men in Kueny et al. is of a localized type, not generalized and has a stabbing characteristic, such as by an arrow or sword [30]. According to Ruschak's study, the pain of men with FMS was also described as "like an arrow or heart attack" and of a fluctuating type; i.e., it was present in different sections of the body, not generalized [37]. The chronicity and random nature of fibromyalgia pain causes much uncertainty and chaos in the lives of these patients [30,31]. Fatigue and insomnia also entail major problems in their lives, which are closely linked to pain, which is their direct aggravating factor [30], a phenomenon also shared in the study of Ruschak et al. [37]. These in turn also limit them at all levels of their social relationships [30,31] because the invisible nature of pain means that patients have to be their own advocates in front of others, because they do not believe them. These challenging situations full of negative attitudes have been previously described in other studies on FMS [9,37–39]. According to Ruschak and colleagues, the lack of understanding shown by some clinicians, as well as their family and friends, has had a very bad impact on patients' health, principally psychological health [37]. Sallinen suggests that there is also a consequence for their identity, especially their masculinity, as it has had to be renegotiated and reconstructed [16]. All these changes in their lives are difficult to face, but necessary. Acceptance of the new reality helps people to move on, mainly with the help of others. This help begins with communicating their discomfort and finding a receptive listener so that they can talk about their pain [40].

5. Conclusions

The results of this review provide updated information on FMS pain in both sexes. To date, we can see that pain remains a very complex, internal and private sensory experience and more so in men because FMS is still mostly conceptualized as a women's disease.

It has been observed in a few studies that both subjective perception and the generalized pain index are higher for women, but a worse impact, more painful and more severe experiences, and also more catastrophic thoughts about pain in men should be considered. In any case, the results have little statistical significance, and we consider that it is necessary to increase the sample of men in the studies so that these particularities can be studied in greater depth.

To improve pain care in these patients, we believe that there is a need for multidisciplinary management including educational interventions aimed at health care personnel on the diverse concepts of pain (subjective perception, impact of pain, widespread pain, localized pain, severity of symptoms, catastrophic thoughts about pain), to thus help to improve the understanding of individual and gender disparities in pain.

The results of this review have been made possible by the increasing inclusion of men with FMS and the awareness that the male experience and perspective is just as important as the female. Even so, we encourage further expansion of the male sample in future studies, because with the current results the significative differences in male and female pain did not reach statistical significance in all the studies, probably due to the small sample of men.

6. Limitations

Some limitations must be mentioned. First, reducing the review to the last 5 years allowed us to identify that there are fewer studies than we thought related to the subject. Secondly, in the mixed studies, the proportion of men to women is unbalanced and the low male representation is detrimental to them and limits their perspective. Finally, there are biases in some regions and we detected that there are countries in which FMS is not studied as much, for example Asian countries. This is probably due to the type of healthcare access they have or their cultural beliefs.

In short, FMS remains an area that needs more awareness and investigation by researchers.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist.

Section	Item	Prisma-ScR Checklist Item	Page
Title	1	Fibromyalgia Syndrome Pain in Men and Women: A Scoping Review	1
Abstract			
Structured summary	2	Fibromyalgia syndrome (FMS) is a chronic musculoskeletal disorder of unknown etiology that affects up to 5.0% of the world population. It has a high female predominance, between 80 and 96%. Due to the low number of diagnosed men, research work has focused mainly on women. The extensive body of literature on sex differences in pain in the general population suggests that men and women differ in their responses to pain, with greater sensitivity to pain and a higher risk of clinical pain commonly observed among women. This review aims to (1) determine how pain is assessed or what types of questionnaires are used, (2) examine whether there are differences in pain characteristics between men and women with FMS and (3) describe how pain is conceptualized or manifested in patients at a qualitative level. In this study, the scoping review method of articles published in the last 5 years (2016–2022) was used. Ten articles were included. The most used questionnaires and scales to assess pain were the PVAS (Pain Visual Analogue Scale) and the FIQ (Fibromyalgia Impact Questionnaire). On the other hand, five categories were obtained: (1) qualities of pain, (2) uncertainty and chaos, (3) pain as an aggravating factor, (4) adaptation to the new reality and (5) communication of pain. It has been observed that both subjective perception and widespread pain are higher in women. Men, on the other hand, have a worse impact of the pathology, more painful experiences and more catastrophic thoughts about pain. In any case, the results have little statistical significance. To obtain higher quality results, it is essential to increase the sample of men with FMS in future studies in order to be able to deepen these differences.	1

Table A1. *Cont.*

Section	Item	Prisma-ScR Checklist Item	Page
INTRODUCTION			
Rationale	3	The choice of the scoping review was mainly due to the heterogeneous nature of FMS in existing studies to date. The scoping review allows us to better group the literature according to its characteristics.	2
Objectives	4	The present review has focused the study of pain in men and women in FMS. Our objectives focused on (1) determining how pain is assessed or what types of questionnaires are used, (2) examining whether there are differences in pain characteristics between men and women with FMS and (3) describing how pain is conceptualized or manifested in the participants at a qualitative level.	3
Methods			
Protocol and registration	5	Not applicable. The review protocol is in the process of being accepted by PROSPERO: www.crd.york.ac.uk/prospero/, accessed on 10 November 2022	
Eligibility criteria	6	The identified studies were subjected to inclusion and exclusion criteria. To be included, studies had to be published from January 2016 to July 2022, available in full text, written in English or Spanish and use both quantitative (observational studies) and qualitative methodology.	3
Information sources	7	The bibliographic search was carried out during the months of February and July 2022. The electronic databases used for the search were PubMed, SCOPUS, CINAHL, Web of Science and Google Scholar. In each of these, an exhaustive search was performed using a combination of Boolean logic and truncations for the following keywords: "pain", "fibromyalgia", "men", "women", "conceptualization", "manifestation", "score" and "assessment".	3
Search	8	The following search string was used for PubMed database, we used (((("Fibromyalgia"(Mesh)) AND "Pain"(Mesh)) AND "Men"(Mesh)) OR "Women"(Mesh)) OR ("Pain Measurement/classification"(Mesh) OR "Pain Measurement/instrumentation"(Mesh) OR "Pain Measurement/nursing"(Mesh) OR "Pain Measurement/psychology"(Mesh)) OR (score) OR (concept*) OR (manifestation) OR (assessment).	3
Selection of sources of evidence	9	The electronic databases selected for the search were PubMed, SCOPUS, CINAHL, Web of Science and Google Scholar.	3
Data charting process	10	Data were extracted from full-text articles that met the objectives and inclusion criteria. Definitive data were obtained using a data extraction form with the following information: author(s), year of publication, country, study design, study objective(s), participants (sex and age range). In the case of quantitative studies, the types of questionnaires used were also considered. In the qualitative articles, for the review of the experiences of men and women with FMS, the authors proceeded to analyze the discourses related to the conceptualization or manifestation of pain by means of categories and subcategories.	4
Data items	11	The variables used for the data search were "pain", "fibromyalgia", "men", "women", "conceptualization", "manifestation", "score" and "assessment".	
Results			
Selection of sources of evidence	12	Figure 1	4

Table A1. *Cont.*

Section	Item	Prisma-ScR Checklist Item	Page
Synthesis of results	13	Of the 10 studies that met the inclusion criteria, 7 were quantitative, 2 qualitative and 1 mixed. Sample sizes ranged from 5 to 4.342 participants. The female sex predominated with 56.7%. In all studies, the age range was 18 years or older; older subjects had a mean age of 56.6 ± 12.6 years. The pain assessment of the selected quantitative studies included a wide variety of questionnaires and scales. The most used were the PVAS (out of 10 or out of 100) and the FIQ. On the other hand, qualitative studies used tools such as focus groups, interviews, narrative and life history to describe how pain manifests itself in men and women with FMS. The PVAS and WPI were higher in female participants. In Wolfe's study, males were older (64.9 ± 12.0 years) than females (59.7 ± 13.5 years). In contrast, in the Jiao study men were significantly younger $p = 0.027$ (43.6 years) than women (50.1 years). The FIQ and PCS were somewhat higher in men than in women in the Segura-Jiménez study, but without statistical significance. There were no differences for the rest of the scales. The review of the qualitative literature allowed us to identify the existence of categories related to pain. A total of five categories were obtained: (1) qualities of pain, (2) uncertainty and chaos, (3) pain as an aggravating factor, (4) adaptation to the new reality and (5) communication of pain. In the first category—pain qualities—we integrated the results related to the pain characteristics reported by patients in the chosen studies. The second category—uncertainty and chaos—describes how patients cope with chronic pain. The third category—pain as an aggravating factor—reflects the different causes of chronic pain in patients. In the fourth category—adaptation to the new reality—we show how patients make vital changes to continue living with pain. Finally, in the last category—pain communication—we show the importance of expressing emotions and sharing the experience of pain as a benefit for the person.	4–11

Table A1. *Cont.*

Section	Item	Prisma-ScR Checklist Item	Page
Discussion			
Summary of evidence	14	This review provides an updated synthesis of fibromyalgia pain from different approaches to better understand it. The first objective of this review was to determine how pain is assessed, i.e., which questionnaires are commonly used. The results show that the PVAS (which assesses the subjective perception of global pain) and the FIQ (which assesses the impact of illness) were the most used tools. We contrasted whether there were differences in pain characteristics according to sex. We detected that the subjective perception of pain was higher in women, as was the generalized pain index (WPI). In contrast, FMS impact was higher in men as were painful experiences and PCS pain thoughts. Although several examples of epidemiological evidence have shown that chronic pain conditions are more prevalent among women than among men, in our review we only detected this in Jiao's study, which revealed significant differences in pain according to sex. Women with FMS had worse values in the WPI questionnaire (generalized pain) and men with FMS had worse values in the SSS (severity of symptoms). Finally, through the use of qualitative methodology this review wanted to describe how pain is conceptualized or manifested in affected individuals. Pain, according to male participants in the studies by Sallinen and Mengshoel and Kueny, has qualities of being fluctuating. Also, agonizing and unbearable at the worst times. Unlike other studies, the pain of the men in Kueny et al. is of a localized type, not generalized and has a stabbing characteristic such as an arrow or sword. According to Ruschak's study, the pain of men with FMS was also described as "like an arrow or heart attack" and of a fluctuating type; i.e., it was present in different parts of the body, not generalized. The chronicity and random nature of fibromyalgia pain causes much uncertainty and chaos in the lives of these patients. Fatigue and insomnia also entail major problems in their lives, which are closely linked to pain, which is their direct aggravating factor, a phenomenon also shared by the study of Ruschak et al. These in turn also limit them at all levels of their social relationships because the invisible nature of pain means that patients have to be their own advocates in front of others, because they do not believe them. These challenging situations full of negative attitudes have been previously described in other studies on FMS. According to Ruschak and colleagues, the lack of empathy shown by some healthcare professionals, as well as their family and friends, have had a very negative impact on patients' health, especially mental health. Sallinen suggests that there is also a consequence on their identity, especially their masculinity, as it has to be renegotiated and reconstructed. All these changes in their lives are difficult to face, but necessary. Acceptance of the new reality helps people to move on, mainly with the help of others. This help begins with communicating their discomfort and finding a receptive listener so that they can talk about their pain.	12–13
Limitations	15	Some limitations must be mentioned. First, reducing the review to the last 5 years has led us to identify that there are fewer studies than we thought related to the subject. Secondly, in most of the mixed studies, the proportion of men to women is unbalanced; the low male representation is detrimental to them and limits their perspective. Finally, there are biases in some regions; we detected that there are countries in which FMS is not studied as much, for example Asian countries. This is probably due to the type of healthcare access they have or their cultural beliefs. In short, FMS remains an area that needs more awareness and investigation by researchers.	14

Table A1. *Cont.*

Section	Item	Prisma-ScR Checklist Item	Page
Conclusions	16	The results of this review provide updated information on FMS pain in both sexes. To date, we can see that pain remains a very complex, internal and private sensory experience and more so in men because FMS is still mostly conceptualized as a women's disease. It has been observed in a few studies that both subjective perception and the generalized pain index are higher for women, but a worse impact, more painful and more severe experiences and also more catastrophic thoughts about pain in men should be considered. In any case, the results have little statistical significance and we consider that it is necessary to increase the sample of men in the studies so that these differences can be studied in greater depth. To improve pain care in these patients, we believe that there is a need for multidisciplinary management including educational interventions aimed at health care personnel on the different concepts of pain (subjective perception, impact of pain, widespread pain, localized pain, severity of symptoms, catastrophic thoughts about pain) to thus help to improve the understanding of individual and gender differences in pain. The results of this review have been made possible by the increasing inclusion of men with FMS and the awareness that the male experience and perspective is just as important as the female. Even so, we encourage further expansion of the male sample in future studies, because with the current results the significative differences in male and female pain did not reach statistical significance in all studies, probably due to the small sample of men.	13

References

1. Jiao, J.; Cheng, Z.; Wang, W.; Zhao, Y.; Jiang, Q. Demographic Characteristics and Clinical Features of Fibromyalgia in China: A Cross-Sectional Study. *Rheumatol. Ther.* **2021**, *8*, 817–831. [CrossRef]
2. Queiroz, L.P. Worldwide Epidemiology of Fibromyalgia. *Curr. Pain Headache Rep.* **2013**, *17*, 356. [CrossRef]
3. Gayà, T.F.; Ferrer, C.B.; Mas, A.J.; Seoane-Mato, D.; Reyes, F.; Sánchez, M.D.; Dubois, C.M.; Sánchez-Fernández, S.A.; Vargas, L.M.R.; Morales, P.V.G.; et al. Prevalence of fibromyalgia and associated factors in Spain. *Clin. Exp. Rheumatol.* **2020**, *123*, 47–52.
4. Cabo-Meseguer, A.; Cerdá-Olmedo, G.; Trillo-Mata, J. Fibromialgia: Prevalencia, perfiles epidemiológicos y costes económicos. *Med. Clin.* **2017**, *149*, 441–448. [CrossRef]
5. Montesó-Curto, P.; Rosselló Aubach, L. (Eds.) Compartir Experiencias, Combatir el Dolor. Publicaciones urv: Tarragona, Spain, 2017. [CrossRef]
6. Wolfe, F.; Clauw, D.J.; Fitzcharles, M.-A.; Goldenberg, D.L.; Katz, R.S.; Mease, P.; Russell, A.S.; Russell, I.J.; Winfield, J.B.; Yunus, M.B. The American College of Rheumatology Preliminary Diagnostic Criteria for Fibromyalgia and Measurement of Symptom Severity. *Arthritis Care Res.* **2010**, *62*, 600–610. [CrossRef]
7. Heidari, F.; Afshari, M.; Moosazadeh, M. Prevalence of fibromyalgia in general population and patients, a systematic review and meta-analysis. *Rheumatol. Int.* **2017**, *37*, 1527–1539. [CrossRef]
8. Miró, E.; Martínez, M.P.; Sánchez, A.I.; Prados, G.; Lupiáñez, J. Men and women with fibromyalgia: Relation between attentional function and clinical symptoms. *Br. J. Health Psychol.* **2014**, *20*, 632–647. [CrossRef]
9. Paulson, M.; Norberg, A.; Danielson, E. Men living with fibromyalgia-type pain: Experiences as patients in the Swedish health care system. *J. Adv. Nurs.* **2002**, *40*, 87–95. [CrossRef]
10. Bartley, E.J.; Fillingim, R.B. Sex differences in pain: A brief review of clinical and experimental findings. *Br. J. Anaesth.* **2013**, *111*, 52–58. [CrossRef]
11. Fauchon, C.; Meunier, D.; Rogachov, A.; Hemington, K.S.; Cheng, J.C.; Bosma, R.L.; Osborne, N.R.; Kim, J.A.; Hung, P.S.-P.; Inman, R.D.; et al. Sex differences in brain modular organization in chronic pain. *Pain* **2020**, *162*, 1188–1200. [CrossRef]
12. Kang, J.-H.; Choi, S.-E.; Park, D.-J.; Lee, S.-S. Disentangling Diagnosis and Management of Fibromyalgia. *J. Rheum. Dis.* **2022**, *29*, 4–13. [CrossRef]
13. Wolfe, F.; Clauw, D.J.; Fitzcharles, M.A.; Goldenberg, D.L.; Häuser, W.; Katz, R.L.; Mease, P.J.; Russell, A.S.; Russell, I.J.; Walitt, B. Revisions to the 2010/2011 fibromyalgia diagnostic criteria. *Semin. Arthritis Rheum.* **2016**, *46*, 319–329. [CrossRef]
14. Araya-Quintanilla, F.; Gutiérrez-Espinoza, H.; Muñoz-Yánez, M.J.; Cavero-Redondo, I.; Álvarez-Bueno, C.; Martinez-Vizcaíno, V. Effectiveness of a multicomponent treatment versus conventional treatment in patients with fibromyalgia. *Medicine* **2020**, *99*, e18833. [CrossRef]
15. Giusti, E.M.; Castelnuovo, G.; Molinari, E. Differences in Multidisciplinary and Interdisciplinary Treatment Programs for Fibromyalgia: A Mapping Review. *Pain Res. Manag.* **2017**, *2017*, 7261468. [CrossRef]

16. Sallinen, M.; Mengshoel, A.M. "I just want my life back!"—Men's narratives about living with fibromyalgia. *Disabil. Rehabil.* **2017**, *41*, 422–429. [CrossRef]
17. Sarzi-Puttini, P.; Giorgi, V.; Marotto, D.; Atzeni, F. Fibromyalgia: An update on clinical characteristics, aetiopathogenesis and treatment. *Nat. Rev. Rheumatol.* **2020**, *16*, 645–660. [CrossRef]
18. Treede, R.-D.; Rief, W.; Barke, A.; Aziz, Q.; Bennett, M.I.; Benoliel, R.; Cohen, M.; Evers, S.; Finnerup, N.B.; First, M.B.; et al. Chronic pain as a symptom or a disease: The IASP Classification of Chronic Pain for the International Classification of Diseases (ICD-11). *Pain* **2019**, *160*, 19–27. [CrossRef]
19. Mease, P.; Arnold, L.M.; Bennett, R.; Boonen, A.; Buskila, D.; Carville, S.; Chappell, A.; Choy, E.; Clauw, D.; Dadabhoy, D.; et al. Fibromyalgia síndrome. *J. Rheumatol.* **2007**, *34*, 1415–1425.
20. Trouvin, A.-P.; Perrot, S. New concepts of pain. *Best Pract. Res. Clin. Rheumatol.* **2019**, *33*, 101415. [CrossRef]
21. Moher, D. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Ann. Intern. Med.* **2009**, *151*, 264. [CrossRef]
22. Peters, M.; Godfrey, C.; McInerney, P.; Munn, Z.; Trico, A.; Khalil, H. Chapter 11: Scoping Reviews. *JBI Man. Evid. Synth.* **2020**, *1*, 419–420. [CrossRef]
23. Sandelowski, M. What's in a name? Qualitative description revisited. *Res. Nurs. Health* **2010**, *33*, 77–84. [CrossRef]
24. Segura-Jiménez, V.; Estévez-López, F.; Soriano-Maldonado, A.; Álvarez-Gallardo, I.C.; Delgado-Fernández, M.; Ruiz, J.R.; Aparicio, V.A. Gender Differences in Symptoms, Health-Related Quality of Life, Sleep Quality, Mental Health, Cognitive Performance, Pain-Cognition, and Positive Health in Spanish Fibromyalgia Individuals: The Al-Ándalus Project. *Pain Res. Manag.* **2016**, *2016*, 5135176. [CrossRef]
25. Wolfe, F.; Walitt, B.; Perrot, S.; Rasker, J.J.; Häuser, W. Fibromyalgia diagnosis and biased assessment: Sex, prevalence and bias. *PLoS ONE* **2018**, *13*, e0203755. [CrossRef]
26. Prateepavanich, P.; Yeephu, S.; Suttiruksa, S.; Suthisisang, C.; Saisavoey, N. Demographic and Clinical Characteristics of Thai Patients with Fibromyalgia Syndrome. *J. Med. Assoc. Thai.* **2018**, *101*, S164–S170.
27. De Roa, P.; Paris, P.; Poindessous, J.L.; Maillet, O.; Héron, A. Subjective Experiences and Sensitivities in Women with Fibromyalgia: A Quantitative and Comparative Study. *Pain Res. Manag.* **2018**, *2018*, 8269564. [CrossRef]
28. Úbeda-D'Ocasar, E.; Valera-Calero, J.A.; Hervás-Pérez, J.P.; Caballero-Corella, M.; Ojedo-Martín, C.; Gallego-Sendarrubias, G.M. Pain Intensity and Sensory Perception of Tender Points in Female Patients with Fibromyalgia: A Pilot Study. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1461. [CrossRef]
29. Iannuccelli, C.; Lucchino, B.; Gioia, C.; Dolcini, G.; Rabasco, J.; Venditto, T.; Ioppolo, F.; Santilli, V.; Conti, F.; Di Franco, M. Gender influence on clinical manifestations, depressive symptoms and brain-derived neurotrophic factor (BDNF) serum levels in patients affected by fibromyalgia. *Clin. Rheumatol.* **2022**, *41*, 2171–2178. [CrossRef]
30. Kueny, A.; Montesó-Curto, P.; Lunn, S.; Mohabbat, A.B.; Clark, S.; Luedtke, C.; Vincent, A.; Ruschak, I.; Mateu-Gil, M.L.; Panisello-Chavarria, M.L.; et al. Fibromyalgia Pain and Fatigue Symptoms in Spanish and U.S. Men. *Pain Manag. Nurs.* **2021**, *22*, 423–428. [CrossRef]
31. Sendra, A.; Farré, J. Communicating the experience of chronic pain through social media: Patients' narrative practices on Instagram. *J. Commun. Healthc.* **2020**, *13*, 46–54. [CrossRef]
32. Bennett, R.M.; Bushmakin, A.G.; Cappelleri, J.C.; Zlateva, G.; Sadosky, A.B. Minimal Clinically Important Difference in the Fibromyalgia Impact Questionnaire. *J. Rheumatol.* **2009**, *36*, 1304–1311. [CrossRef]
33. Wolfe, F.; Brähler, E.; Hinz, A.; Häuser, W. Fibromyalgia Prevalence, Somatic Symptom Reporting, and the Dimensionality of Polysymptomatic Distress: Results from a Survey of the General Population. *Arthritis Care Res.* **2013**, *65*, 777–785. [CrossRef]
34. Huskisson, E.C. Visual analogue scale. In *Pain Measurement and Assessment*; Melzack, R., Ed.; Raven Press: New York, NY, USA, 1983; pp. 33–37.
35. Fillingim, R.B. Individual differences in pain: Understanding the mosaic that makes pain personal. *Pain* **2016**, *158*, S11. [CrossRef]
36. Fillingim, R.B.; King, C.D.; Ribeiro-Dasilva, M.C.; Rahim-Williams, B.; Riley, J.L. Sex, Gender, and Pain: A Review of Recent Clinical and Experimental Findings. *J. Pain* **2009**, *10*, 447–485. [CrossRef]
37. Ruschak, I.; Toussaint, L.; Rosselló, L.; Aguilar Martín, C.; Fernández-Sáez, J.; Montesó-Curto, P. Symptomatology of Fibromyalgia Syndrome in Men: A Mixed-Method Pilot Study. *Int. J. Environ. Res. Public Health* **2022**, *19*, 1724. [CrossRef]
38. Conrad, P.; Barker, K.K. The Social Construction of Illness: Key Insights and Policy Implications. *J. Health Soc. Behav.* **2010**, *51* (Suppl. S1), S67–S79. [CrossRef]
39. Katz, J.D.; Mamyrova, G.; Guzhva, O.; Furmark, L. Gender bias in diagnosing fibromyalgia. *Gend. Med.* **2010**, *7*, 19–27. [CrossRef]
40. Ressler, P.K.; Bradshaw, Y.S.; Gualtieri, L.; Chui, K.K.H. Communicating the Experience of Chronic Pain and Illness Through Blogging. *J. Med. Internet Res.* **2012**, *14*, e143. [CrossRef]

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Original Research

Fibromyalgia Pain and Fatigue Symptoms in Spanish and U.S. Men

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ABSTRACT

Background and Aims: Fibromyalgia Syndrome (FMS) is a chronic centralized pain disorder characterized by widespread pain and fatigue. Of those affected by FMS, the majority are women, and minimal research exists involving men. The purpose of this paper is to describe the pain and fatigue experiences of men with FMS from two Western countries, Spain and the United States, in order to support more accurate and earlier recognition and diagnosis in men.
Design and Methods: We used individual and focus group interviews with qualitative and quantitative assessments.
Settings and Participants/Subjects: Ten men in Spain and seven men in the United States provided information about their symptoms, psychosocial and health-seeking behaviors, and gender experiences with FMS.
Results: Men articulated types, trends, and triggers of pain and fatigue that enrich an understanding of their symptoms. For example, men report more localized pain than generalized pain. Employment status and activities, among other contextual factors, impacted men's pain and fatigue experiences.
Conclusions: Men experience distinct facets of pain and fatigue compared with women, with notable similarities and differences across the Spanish and U.S. samples. Cross-cultural comparisons highlight contextual factors that may inspire future inquiries about determinants of men's experiences with FMS.
Clinical Implications: The present study could be useful for anyone treating men suffering from FMS, especially care providers in nursing, medical, and psychology fields. These initial findings may prompt a closer examination of recommendations for assessment and diagnostic criteria used internationally for patients with FMS with better recognition of men's experience.

Background

Fibromyalgia Syndrome (FMS) is a chronic centralized pain sensitivity condition characterized by widespread chronic pain accompanied by fatigue, sleep difficulties, cognitive complaints,

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and mood symptoms (American College of Rheumatology, 2019). FMS often results in disability and significantly impairs health and quality of life (Montesó-Curto et al., 2010). Patient-centered care for individuals with FMS should include attending to patients' social circumstances that may shape their preferences, values, and illness experiences (Engebretson et al., 2008). Care for men with FMS can be challenging due to limited gender-specific evidence of their FMS experience. In recent revisions of FMS diagnostic criteria, males were just 8.2% of the patient sample used to establish the criteria (Wolfe et al., 2010). Globally, the female-to-male prevalence of FMS is 3:1 (Queiroz, 2013). Consequently, the majority of research thus far has predominantly focused on women, which has limited our understanding and appreciation of men's perspectives (Miró et al., 2014).

Gender and FMS

Gender differences in FMS-related pain and fatigue are a thought-provoking, valuable, and unsettled area of study. In some quantitative research, compared to women, men were less sensitive to pain and had fewer tender points (e.g., Yunus et al., 2004). Men with FMS have also demonstrated worse quality of life, greater physical impairment, greater sexual dysfunction, and poorer health in general (Batmaz et al., 2013; Buskila et al., 2000; Hooten et al., 2007). However, in other quantitative work, many of these differences were not observed (e.g., Sánchez et al., 2013). Studies on gender, FMS, and fatigue are similarly inconsistent; Wolfe et al. (1995) and Aparicio et al. (2012) observed that men report less fatigue than women, but Yunus et al. (2004) showed no difference. These quantitative studies inform us merely of gender differences in intensities of pain and fatigue, but do little to identify differences in gender-based qualities of pain. Qualitative studies using a gender perspective showed that men's pain could be generalized or localized, cause considerable daily limitations, and fluctuate between periods of calm to unbearable difficulty (Paulson et al., 2001). Additionally, men reported that some health professionals did not believe them or considered their pain unreal or exaggerated (Paulson et al., 2001).

Based on the limited evidence of men's experience with FMS, the present pilot study sought to assist healthcare professionals caring for men with FMS by undertaking a richer description of men's experiences across two countries: Spain and the United States. To capture both gender and contextual factors that may impact men's experience, we selected two different Western countries with similar FMS prevalence. The prevalence of FMS in Spain is about 3%-4 % for women, and about 0.2%-1% for men, whereas the prevalence of FMS in the US is about 3%-8% for women and 0.5%-5% for men (Queiroz, 2013). Prior research suggests some differences across global regions, such as time to diagnosis, pain severity, and medication use (Clark et al. (2013). This study hopes to encourage high-quality patient-centered care for men with FMS.

Methods

Design

This pilot study was a cross-cultural, mixed-methods study of Spanish and American men. Two questionnaires were used to quantify symptoms, treatments, and quality of life. Qualitative interviews allowed men to explain and expand on these areas. Quantitative and qualitative data were simultaneously collected and analyzed.

Participants and Procedures

Purposive sampling was used to recruit participants with a broad range of experiences. Men were included in this study if they were older than 18 years of age, had a diagnosis of FMS, and were a Spanish or U.S. citizen. Men who were minors or had been diagnosed with dementia, schizophrenia, or bipolar were excluded from the study. Overall, 17 men participated: 10 from Spain and seven from the US. All 17 men completed an informed consent form and the qualitative interview questions, while 16 men submitted completed quantitative questionnaires.

Spanish Data Collection Procedure

Participants were selected from a list provided by the Rheumatology Unit of one hospital. Focus groups were completed with all 10 men in two parts, one month apart in 2018. Sessions were led by two health professionals trained in this technique and a third observer familiar with the study. Each focus group interview lasted 120 minutes, and was audio recorded and subsequently transcribed by one of the researchers who witnessed these meetings.

United States Data Collection Procedure

Participants were selected from a list provided by the Fibromyalgia and Chronic Fatigue Clinic at one hospital, and from voluntary response to public regional advertisements of the study. Due to constraints in scheduling a group of men to meet at one time around their other clinical appointments, individual interviews were the most feasible option. Two men completed a joint interview, whereas five men completed individual interviews in 2018. Two health professionals, both trained in interview techniques, led the interviews. Individual interviews lasted 45-60 minutes, while the joint interview lasted 120 minutes. Interviews were audio-recorded and transcribed afterward by one of the researchers who witnessed these meetings.

Qualitative Interview

The same interview guide was used in Spain and the United States, consisting of four major questions with subquestions. The first question, which provides the primary focus for this paper, explored the perceptions, signs, and symptoms of FMS. The second question examined feelings, reactions, and biopsychosocial resources used to cope with FMS. The third question explored personal repercussions or considerations of any gendered experiences, since FMS is diagnosed primarily in women. The fourth question investigated the performance of physical exercise and its effects on health.

Quantitative Measures

The quantitative measures were administered at the same time the qualitative interviews were completed or on the participants' own time, and then later submitted to the researchers. Single-item, self-report assessments were used to measure demographics, symptom experience, and symptom management. The Fibromyalgia Impact Questionnaire (FIQ; Bennett, 2005) was also administered; it ranges from 0-100 for the total score (with higher scores representing greater functional impairment).

Analysis

Qualitative data were analyzed using content analysis and inductive coding. The Spanish and U.S. researchers coded their respective countries' interview transcripts. Atlas.ti was used for qualitative analysis, and all codes were translated into English.

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Quantitative data were summarized with descriptive statistics. Comparisons were made across cultures using *t* tests and χ square Fisher exact tests. SPSS was used for quantitative analyses, and statistical significance was set at $p < .05$. Regular meetings occurred between researchers to discuss cross-cultural comparisons and meanings of codes, and to articulate the meanings and cultural contexts in our respective sample groups (Stone et al., 2017).

Ethics Approval

Research ethics committees of the two associated universities and institutional review boards of partnering healthcare facilities provided approval for this study.

Results

Table 1 contains sociodemographic information of the participants. Men (N = 17) ranged in age from 30 to 63 years old, with a mean age of 52 years. The majority of men were married, had completed secondary education, and lived with multiple people in their homes; no Spanish versus U.S. differences were observed ($\chi^2 < 4.5$, $p > .24$). A statistically significant difference showed that more U.S. men were actively working compared to Spanish men ($\chi^2 = 9.78$, $p < .05$).

Table 2 presents information on the number of participants using pharmacological and nonpharmacological therapies. In regard to pharmacological therapies, Spanish participants used more opiates ($\chi^2 = 7.14$, $p < .01$), nonsteroidal anti-inflammatory drugs (NSAIDs; $\chi^2 = 4.41$, $p < .05$), cervical infiltration with botulinum toxin ($\chi^2 = 6.49$, $p = .01$), antidepressants ($\chi^2 = 7.47$, $p < .01$), and anxiolytics ($\chi^2 = 13.25$, $p < .001$), compared to U.S. participants. Use of Pregabalin was similar ($\chi^2 = .24$, $p = .63$). In terms of nonpharmacological therapies, Spanish participants used more phytotherapy ($\chi^2 = 8.33$, $p < .01$) and music therapy ($\chi^2 = 4.96$, $p < .05$), while use of yoga ($\chi^2 = 3.66$, $p < .10$) and massage ($\chi^2 = 5.13$, $p = .05$) approached significant differences compared to U.S. participants. Use of group ($\chi^2 = 2.30$, $p = .13$) and individual ($\chi^2 = 2.30$, $p = .13$) psychotherapy was similar.

Pain Intensity

Spanish men ($M = 81.93$, $SD = 5.89$) reported higher levels of pain on the FIQ than did U.S. men ($M = 67.99$, $SD = 15.33$), but the difference only approached statistical significance ($t[5.90] = -2.13$, $p = .08$). While the quantitative assessment of pain showed a notable though nonsignificant difference in pain severity, qualitative data from U.S. participants revealed a unique pattern that was marked by punctuated periods of intense pain that were preceded or followed by periods of relief. For instance, one man explained that he had "8 years of being in pain… pain and suffering between 4 and up to 9 in pain depending on the type of day." Another said, "I would rate it as a 5 or a 6. It will get up to an 8 or 9 depending on what I do during the day." Spanish participants did not describe their specific pain rating during qualitative interviews, but noticed periods of intense pain experiences; for instance, one participant noted a detrimental effect of cold air: "air conditioners…I do not tolerate them because my pains intensify."

Table 1
Patient Sociodemographic Characteristics

Variable	United States (n = 7)	Spain (n = 10)
Civil status		
Married	6	5
Single	1	1
Divorced/Separated	0	3
Widowed	0	1
Education level		
No high school	0	1
High school	3	7
Four-year college	2	2
Graduate/doctoral degree	2	0
Occupational status		
Active worker	4	0
Unemployed	1	3
Active w/work disability	0	2
Permanent disability	2	2
Retired/pensioner	0	3
Number of people living in home		
One	1	2
Two to four	6	8

Qualities and Locations of Pain: How Do Men Feel Pain?

Men were able to vividly describe the specific qualities of their pain, including specific locations (see Table 3). Men identified specific locations of pain more rather than describing it as widespread, as per the usual understanding of FMS. Spanish and U.S. men identified shooting pain as their worst type of pain, although this was expressed more by Spanish men. Five Spanish men described unbearable pain, or "Pain [through] the soul."

Something especially challenging for men from both samples was the invisible nature of the pain they experienced, and knowing that others could not see their disability. At work or around the home, men recognized their own physical limitations due to FMS, but others around them did not recognize the disease. These men recognized that they had to be their own advocates and self-reporters of pain because others around them could not see the origins or manifestations of the pain they were experiencing.

Patterns and Triggers of Pain

Men also described the duration and pattern of their pain over time (see Table 4). In accordance with FMS diagnostic criteria, men identified consistent and chronic pain that is ever-present in their lives. However, some patterns and self-identified triggers help to clarify the fluctuating nature of the pain they experience. Four U.S. men expressed pain that was worsening over time, while no Spanish men described this phenomenon. Men were taken aback by the sporadic and unpredictable nature of the pain, presenting or flaring at any time. Furthermore, men described inciting triggers for pain, such as thermosensitivity. Physical exertion, such as walking or even changing a lightbulb, was enough to cause these men subsequent pain episodes. Men from both samples acknowledged that the more they moved, the more pain they experienced.

Additionally, some men noticed that their FMS symptoms began or increased after stressful life events. Events that men identified as preceding their symptoms of FMS included vertebra fracture, stent placement, Lyme Disease, and the suicide of one man's wife. Others described working in permanently stressful situations that evolved into FMS, such as labor-intensive and repetitive employment activities of "hanging all day from roofs and windows" installing gas lines.

Perceptions of Fatigue

Fatigue was described by the majority of participants in Spain and the United States. They described fatigue as feelings of excessive exhaustion, the inability to feel rested after a night of sleep, or sleepiness during the daytime (see Table 5). Fatigue impacted their lives by making it difficult for men to complete daily activities, such as cooking, showering, and shaving. Additionally, men from both

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Table 2
Patient Use of Pharmacological and Nonpharmacological Therapies

Therapy Use	United States (n = 7)	Spain (n = 10)
Pharmacological		
Opioids	1	8
Nonsteroidal anti-inflammatory drugs	3	9
Cervical infiltration, botulinum toxin	0	6
Antidepressants	3	10
Anxiolytics	1	10
Pregabalin	2	4
Nonpharmacological		
Phytotherapy	0	7
Group psychotherapy	1	5
Individual psychotherapy	1	5
Yoga	0	4
Massage	1	7
Music therapy	0	5

samples noticed that they started dropping things and found it difficult to bend over to pick things up, causing great difficulty with manual labor.

Discussion

This study enhances our understanding of men's experience of pain and fatigue associate with FMS. Common experiences across Spanish and U.S. samples included fluctuating pain (especially with movement), pain considered invisible to others, localized pain, and fatigue that affects daily activities and manual labor. Qualitative differences existed across samples, such as Spanish men reporting shooting and unbearable pain more than U.S. men, Spanish men reporting thermosensitivity more than U.S. men, U.S. men reporting more constant pain than Spanish men, and U.S. men reporting worsening pain over time while Spanish men did not. Quantitative results showed that Spanish men rated pain higher than U.S. men, fewer Spanish men were actively working while most U.S. men were actively working, and more Spanish men than U.S. men used pharmacological and nonpharmacological treatments. What are the gender and cultural perspectives that might help us understand these findings? This study aimed to gain a clearer understanding of these factors and their influence in FMS.

Men specifically described their fluctuating pain, highlighting the importance of the variable nature of pain that may occur in men. Men's pain was reported to fluctuate over time, depending on the degree of work and body strain, and possibly fluctuating within any given day. Though common to both cultures, this fluctuation was more pronounced in the U.S. sample. These findings reflected Paulson et al.'s (2001) "difficult and calm phases" (p. 56). When healthcare providers are discussing pain in men with FMS, it is important for providers to be aware of the fluctuating and sometimes volatile nature of the pain experience in men. Additionally, men in this study experienced pain in specific locations more than widespread or diffuse pain. It should be noted that starting in 2010, the American College of Rheumatology's (ACR) diagnostic criteria based the diagnosis on "widespread pain" rather than specific tender points, given that men in previous studies exhibited minimal tender points (National Fibromyalgia Association, 2018; Wolfe et al., 2016). However, in our study, only four men in each of the Spanish and U.S. samples reported "widespread" pain.

In addition to the gender perspective of this paper, the cultural perspective takes into account additional contextual factors related to pain and fatigue. Two noteworthy differences in these samples included employment status and the use of pharmaceuticals. Considering the impact of FMS on a person's general functioning, it stands to reason that an individual's functioning at work would also be significantly affected. Work is an important facet of people's lives and offers the capacity to meet multiple fundamental needs, including the need for survival, identity, relatedness, and self-determination (see Blustein et al., 2008). However, Ferguson (2014) concluded that men perceived FMS to have negative effects on their work lives, including physical, mental, psychological, and social aspects. The fibromyalgia clinic in the United States does not view fibromyalgia as a disability, but rather expects its patients to continue work or volunteer to engage in meaningful activity; however, the clinic might suggest moderation or modifications within a job, or even a career change, if necessary. Although men in this study experienced increased pain with manual labor while at work, men with FMS who are not working may experience stress that may affect their reporting and experience of FMS symptoms on a broader scale. Future research should explore the relationship between levels or types of employment and severity of FMS symptoms in men.

Employment is a cultural differentiator of the two health systems, with the Spanish system offering universal healthcare and pension protection (Conde-Ruiz & González, 2016) and the American model encouraging or requiring people to work for healthcare and other benefits. The United States stands out from many other countries in not offering universal health insurance coverage (Institute of Medicine and National Research Council, 2013). Parsons' "sick role" concept based on the classical social theory of Emile Durkheim and Max Weber and the psychoanalytical theories of Sigmund Freud and Franz Alexander, delineates that the sick person as a consequence of their socialization in a certain culture is motivated to recovery but can also be motivated, consciously or unconsciously, by wanting the "secondary gain" of the privileges and exemptions from the tasks of daily life that accompany the sick role (Cockerham, 2017). Patients in the Spanish system were

Table 3
Qualities and Locations of Pain

Theme	United States[a]	Spain[a]	Example
Quality			
Aching pain	4	0	"For me it is kind of like when you have a fever and your body aches. Like if you have the flu or something and you feel like you have that body ache." (U.S.)
Shooting pain	4	7	"It's like a sword, enters in front of the chest and comes out from behind… like a myocardial infarction." (Spain)
Unbearable pain	0	5	"Moments when you throw yourself to the ground, you cannot walk or breath." (Spain)
Invisible pain	4	3	"You just look at me and I look strong. I look like I could do anything and people just can't see the way they you feel." (U.S.)
Location			
Specific locations	7	5	"Chest wall area," "legs," "arms," "shoulders," "neck," "back," "forehead," "eye pain," "joint pain," "pain all over the body." (Spain and U.S.)
Widespread pain	4	4	"Except the lashes, everything hurts me." (Spain)

[a] Number of patients expressing this theme.

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Table 4
Patterns and Triggers of Pain

Theme	United States[a]	Spain[a]	Example
Patterns			
Chronic	6	3	"I have pain 365 days a year." (Spain)
Worsening pain	4	0	"I was diagnosed 3 or 4 years ago; it just wasn't this bad." (U.S.)
Sporadic pain	3	0	"I used to get flareups at least three to four times a week. It would last a couple hours and then go away. I am walking and then all of the sudden my arm and my elbow hurt and then it would stop… am I going crazy?" (U.S.)
Triggers			
Thermosensitive	0	2	"The air conditioners … I do not tolerate them because my pains intensify." (Spain)
Movement-related pain	6	3	"I had one day where I did some yard work and the next day I had to call my parents to bring me something to eat because I couldn't get up to make something. It was just that painful. So its proportional on what I do one day and how I feel the next." (U.S.)

[a] Number of patients expressing this theme.

allowed exemptions from work due to their FMS diagnosis and symptoms, while men in the US system described fewer employment options to accommodate their FMS diagnosis and symptoms.

Findings in this study showed polypharmacy in the Spanish sample, including opioids, NSAIDs, antidepressants, and anxiolytics; Spanish men also reported a higher rating of pain and more shooting pain than U.S. men. These findings point to a possible affect of pharmaceutical treatment on pain experience. Opioid-induced hyperalgesia is a condition in which patients receiving opioids for pain reduction may actually become more sensitive to painful stimuli (Lee et al., 2011). Over-the-counter NSAIDs and opioid medications are not recommended for patients with FMS unless they are needed for underlying pain-generating triggers (ACR, 2019).

FMS is a prime example of the ways gender inequalities in health have an impact on both men and women (Payne, 2009). Contrary to the common practice in medicine in which men are more often studied than women (e.g., cardiovascular disease; Ruiz Pérez et al., 2007), much less is known about men as compared to women regarding FMS. While the World Health Organization formally recognized FMS in 1992 (Forbes & Chalmers, 2004), few national health plans within European or Latin America provide guidelines and treatment options for providers to care for patients with FMS (Briones-Vozmediano, 2017). Within the United States, research and practice guidelines continue to evolve across the Diagnostic and Statistical Manual of Mental Disorders (DSM), the American Colleges of Rheumatology (ACR), and the International Classification of Disease (ICD). Not only do providers need to confirm research findings to build diagnostic criteria and treatment recommendations for FMS, but gender- and culture-based evidence is needed to adhere to best practices in treating both men and women with FMS. The invisibility stereotype and isolation that marked men's pain and fatigue experience in this study highlight the need to continue building awareness and support for men with FMS across all cultures.

This small mixed-methods study possesses some limitations that are important to consider. First, the study is exploratory and small in size and scope. Second, all information is self-reported and may contain relevant cognitive (e.g., recall) biases, and future work should aim to use health-record information for medications and physician diagnoses pertaining to specific symptoms. Third, there was some variability in interview group size and scheduling, but maintaining thorough interview guides and interview protocols kept the interviews as consistent as possible. Finally, the presence of two sets of coders from two countries may have introduced separate approaches to data coding and analysis, but frequent team meetings and creation of codebook definitions helped to build consistency in coding throughout analysis.

Implications and Conclusions

Adjusting screening, diagnostic, and treatment practice to accommodate differences across gender and culture requires careful evaluation of the currently available evidence. Unfortunately, much of the established evidence for FMS is based on women from a single culture. This report offers initial findings for researchers and providers to help better evaluate men from two different countries, in order to improve patient care and clinical practice. Clinicians working with patients with FMS should consider the possible affects of opioid and NSAID use on patients' pain experiences. Additionally, a thorough assessment of pain experiences for men includes pain fluctuations, specific locations vs. widespread occurrence, and triggers. Men specifically desire providers who recognize FMS as a condition in men in order to eliminate their feelings of invisibility or unrecognized pain and fatigue

Table 5
Perceptions of Fatigue and Fatigue-Related Physical Troubles

Theme	United States[a]	Spain[a]	Example
Perceptions			
Description	7	5	"For 24 hours I started having pain… some muscle pain and fatigue for 24 hours a day. There were times that I left my house in tears." (U.S.) "Brutal tiredness, your arms and legs do not work. You grab a potato and have to wait a while to cut it." (Spain)
Daytime sleepiness	5	5	"Most of the time I am so tired that I spend the day in bed." (Spain)
Physical troubles			
Weakness	5	3	"I've already… it's sad to say… had to sleep in my truck in my garage overnight because I couldn't make it in the house because I've got some steps to go up to the house and I just couldn't make it." (U.S.)
Dropping things	2	1	"Sometimes, I could not hold things in my hands." (Spain)
Need rest	3	3	"It depresses me to no end that I can't do what I want to do. It just… you know… I have to rest in between. I just do." (U.S.)
Difficulty walking	4	5	"I got to the point where I was bedridden for about a week." (U.S.)

[a] Number of patients expressing this theme.

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experiences. Future research should continue to explore the relationship between levels or types of employment and severity of FMS symptoms in men. Additionally, future research should continue to identify the link between opioid and NSAID use and hyperalgesia, in order to influence future practice guidelines. Nursing education at all levels can work to translate current evidence to future clinicians, including key assessment and treatment recommendations for both men and women with FMS. Specifically, educators can review the benefits and risks of types of paid or volunteer work, and offer nonpharmacological treatment options to support patient-centered care for men with FMS.

Providers in nursing, medicine, and psychology are in prime positions to identify contextual cultural and gender factors that may impact a patient's experience with FMS. This paper aims to stimulate thinking about the specific questions to ask men from the United States, Spain, and other countries that may trigger a provider to re-evaluate the evidence and adjust guidelines as needed for best practice and patient outcomes.

Conflict of Interest

None.

References

American College of Rheumatology. (2019). Fibromyalgia. Retrieved from https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Fibromyalgia. (Accessed 30 September 2020).

Aparicio, V. A., Ortega, F. B., Carbonell-Baeza, A., Femia, P., Tercedor, P., Ruiz, J. R., & Delgado-Fernández, M. (2012). Are there gender differences in quality of life and symptomatology between fibromyalgia patients? *American Journal of Men's Health, 6*(4), 314–319.

Batmaz, I.1., Sarıyıldız, M. A., Dilek, B., Inanır, A., Demircan, Z., Hatipoğlu, N., & Cevik, R. (2013). Sexuality of men with fibromyalgia: What are the factors that cause sexual dysfunction? *Rheumatology International, 33*(5), 1265–1270.

Bennett, R. (2005). The fibromyalgia impact questionnaire (FIQ): A review of its development, current version, operating characteristics and uses. *Clinical and Experimental Rheumatology, 23*(Suppl. 39), S154–S162.

Blustein, D. L., Kenna, A. C., Gill, N., & DeVoy, J. E. (2008). The psychology of working: A new framework for counseling practice and public policy. *The Career Development Quarterly, 56*(4), 294–308.

Briones-Vozmediano, E. (2017). The social construction of fibromyalgia as a health problem from the perspective of policies, professionals, and patients. *Global Health Action, 10*(1), 31967.

Buskila, D., Neumann, L., Alhoashle, A., & Abu-Shakra, M. (2000). Fibromyalgia syndrome in men. *Seminars in Arthritis & Rheumatism, 30*(1), 47–51.

Clark, P., Paiva, E. S., Ginovker, A., & Salomón, P. A. (2013). A patient and physician survey of fibromyalgia across Latin America and Europe. *BMC Musculoskeletal Disorders, 14*(1), 188.

Cockerham, W. C. (2017). *Medical Sociology* (8th ed., pp. 189–216). New York, NY: Routledge.

Conde-Ruiz, J. I., & González, C. I. (2016). From Bismarck to Beveridge: The other pension reform in Spain. *SERIEs, 7*, 461–490.

Engebretson, J., Mahoney, J., & Carlson, E. D. (2008). Cultural competence in the era of evidence-based practice. *Journal of Professional Nursing, 24*(3), 172–178.

Ferguson, M. (2014). *The workplace lives of men with fibromyalgia: A qualitative study. (Doctoral Thesis). School of Education*. Indiana University. Retrieved from https://search.proquest.com/openview/d43764d40d184b0d444d8b84958054c3/1/advanced. (Accessed 19 March 2021).

Forbes, D., & Chalmers, A. (2004). Fibromyalgia: Revisiting the literature. *The Journal of the Canadian Chiropractic Association, 48*(2), 119–131.

Hooten, W. M., Townsend, C. O., & Decker, P. A. (2007). Gender differences among patients with fibromyalgia undergoing multidisciplinary pain rehabilitation. *Pain Medicine, 8*(8), 624–632.

Institute of Medicine and National Research Council. (2013). *U.S. health in perspective: Shorter lives, poorer health*. The National Academies Press. Retrieved from https://doi.org/10.17226/13497. (Accessed 19 March 2021).

Lee, M., Silverman, S. M., Hansen, H., Patel, V. B., & Manchikanti, L. (2011). A comprehensive review of opioid-induced hyperalgesia. *Pain Physician, 14*(2), 145–161.

Miró, E., Martínez, M., Sánchez, A., Prados, G., & Lupiáñez, J. (2014). Men and women with fibromyalgia: Relation between attentional function and clinical symptoms. *British Journal Of Health Psychology, 20*(3), 632–647.

Montesó Curto, M. P., Ferré i Grau, C., & Martínez Quintana, V. (2010). Fibromyalgia: Beyond the depression. *Revista de enfermería, 3*, 20–26.

National Fibromyalgia Association. (2018). Prevalence. Retrieved from http://www.fmaware.org/about-fibromyalgia/prevalence/. (Accessed 30 September 2020).

Paulson, M., Danielson, E., Larsson, K., & Norberg, A. (2001). Men's descriptions of their experience of nonmalignant pain of fibromyalgia type. *Scandinavian Journal of Caring Sciences, 15*(1), 54–59.

Payne, S. (2009). WHO Regional Office for Europe and European Observatory on Health Systems and Policies. How can gender equity be addressed through health systems?. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0006/64941/E92846.pdf. (Accessed 30 September 2020).

Queiroz, L. P. (2013). Worldwide epidemiology of fibromyalgia. *Current Pain and Headache Reports, 17*(8), 356.

Ruiz Pérez, I., Ubago Linares, M. C., Bermejo Pérez, M. J., Plazaola Castaño, J., Olry de Labry-Lima, A., & Hernández Torres, E. (2007). [Differences in sociodemographic, clinical, psychosocial and health care characteristics between men and women diagnosed with fibromyalgia]. *Revista Clínica Española, 207*(9), 433–439.

Sánchez, A. I., Valenza, M. C., Martínez, M. P., Miró, E., Diener, F. N., Lami, M. J., & Cáliz, R. (2013). Gender differences in the pain experience and physical activity of fibromyalgia syndrome patients. *Journal of Musculoskeletal Pain, 21*(2), 145–155.

Stone, T. E., Maguire, J., Kang, S. J., & Cha, C. (2017). Practical issues of conducting a Q methodology study: Lessons learned from a cross-cultural study. *Advances in Nursing Science, 40*(3), 291–299.

Wolfe, F., Clauw, D. J., Fizcharles, M.-A., Goldenberg, D. L., Katz, R. S., Mease, P., & Yunus, M. B. (2010). The American College of Rheumatology preliminary diagnostic criteria for fibromyalgia and measurement of symptom severity. *Arthritis Care and Research, 62*(5), 600–610.

Wolfe, F., Clauw, D. J., Fitzcharles, M.-A., Goldenberg, D. L., Häuser, W., Katz, R. L., & Walitt, B. (2016). Revisions to the 2010/2011 fibromyalgia diagnostic criteria. *Seminars in Arthritis and Rheumatism, 46*(3), 319–329.

Wolfe, F., Ross, K., Anderson, J., Russell, I. J., & Hebert, L. (1995). The prevalence and characteristics of fibromyalgia in the general population. *Arthritis & Rheumatism, 38*(1), 19–28.

Yunus, M. B., Celiker, R., & Aldag, J. C. (2004). Fibromyalgia in men: Comparison of psychological features with women. *The Journal of Rheumatology, 31*(12), 2464–2467.

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Symptomatology of Fibromyalgia Syndrome in Men: A Mixed-Method Pilot Study

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Abstract: Fibromyalgia syndrome (FMS) is characterized by generalized chronic musculoskeletal pain, fatigue, and sleep disturbance, as well as cognitive, somatic, and other symptoms. Most people affected by FMS are women, and studies analyzing this condition in men are scarce. In this study, we discuss the physical and psychological symptoms of FMS in men, analyze the possible side effects of pharmacological therapies, and explore the impact of the illness comparing these results between the different classification groups according to sociodemographic variables (marital status, level of education, employment situation and number of people living at home). We used a sequential exploratory mixed method (MM). Qualitative information was obtained from two focus groups (n = 10). Structured questionnaires were administered to 23 men affected by FMS. The mean age of the participants was 51.7 years (SD = 9.64). The most common drugs used were antidepressants and anxiolytics (86.9%), followed by non-steroidal anti-inflammatory drugs (82.6%) and opioids (60.9%). Current level of pain was high (8.2; SD = 1.1), while perceived health and satisfaction with pharmacological treatments were low (4.6; SD = 2.6 and 3.5; SD = 3.2, respectively). The impact of FMS measured using the Fibromyalgia Impact Questionnaire (FIQ) was very high at 88.7 (SD = 8.2). Six categories related with symptoms and side effects of the medication were observed in the qualitative data: (1) main physical symptoms, (2) mood disorders, (3) insomnia and non-restorative sleep, (4) cognitive disturbance, (5) hypersensitivity, and (6) symptoms secondary to opioids. Pain and fatigue were the symptoms most often mentioned by the participants (70% and 80%, respectively). Other important symptoms were anxiety, depression, and memory and sleep disorders. The consumption of opioids causes further unwanted symptoms such as drowsiness and dependence, which makes it difficult for patients to perform basic everyday activities. We believe it is vitally important to continue investigating this symptomatology in order to improve diagnosis and treatment for these patients.

Keywords: fibromyalgia; men; opioid; pharmacological-therapy; symptomatology

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1. Introduction

Fibromyalgia syndrome (FMS) is characterized by chronic pain, fatigue, insomnia, cognitive dysfunction, mental health disorders, and other symptoms [1]. As the pathogenesis of FMS is still poorly understood, its diagnosis, based on criteria updated in 2016 by the

American College of Rheumatology, is difficult. There are currently no biomarkers of the condition, so clinical evaluation and patient explanations are employed [2].

The prevalence of FMS ranges from 2% to 6% of the world's population [3,4]. The condition greatly alters an individual's health-related quality of life. The vast majority of patients are affected, to varying degrees, by disability, social isolation, and stigmatization, while lack of legitimacy regarding diagnosis and uncertainty regarding long-term prognosis also result [5].

The aim of treatment, which is not curative, is to reduce symptoms and afford the patient greater functionality [6]. Given the wide range of signs and symptoms and the low efficacy of standard medical procedures, the numerous interventions differ in their duration, objectives, therapeutic components, and type of professionals. Nevertheless, since FMS is a highly complex condition, most authors conclude that treatment should be holistic, comprehensive, and approached from a multidisciplinary perspective [7].

Another important aspect is the strong predominance of female patients, who represent 80–96% of all FMS patients [3,4]. Since most research conducted to date has focused predominantly on women, understanding of the condition from the male perspective is limited [8]. Eminent researchers in the field, such as Wolfe et al. [4], believe that men with FMS are underdiagnosed, and this may affect the accuracy of statistics relating to symptoms, prevalence, costs, and clinical results. A systematic review of FMS in men and women around the world reported that the prevalence of the condition is similar for both sexes, i.e., roughly 3.98% in women and 2.40% in men [9]. However, the symptoms experienced by men were much less likely to be identified and diagnosed than those of women. The discrepancy between men and women in relation to the prevalence and diagnosis of FMS seems to be related to the social stigma associated with it being considered a "female illness" [8,10].

Studies comparing the symptomatology of women and men with FMS report that men are less sensitive to pain and have fewer tender points [4,11–13]. However, when Sánchez et al. [14] explored gender-related differences in the experience of pain, physical activity, and psychological measures with healthy control groups, they reported no significant differences in any variable. Studies on fatigue in FMS by gender have also produced uneven results. For example, Aparicio et al. [15] observed that men reported less fatigue than women. On the other hand, Buskila [11] found that men reported more fatigue than women, while Yunus, Celiker, and Aldag [13] reported no significant differences. Men also manifested more alterations in their sleep patterns [16], as well as greater physical deterioration and worse quality of life [11,17]. Studies of anxiety, stress, and depression by gender also provide results with no significant differences [13]. On the other hand, Buskila and colleagues [11] found that men had a greater range of mental disorders and a poorer quality of life in general [11,15].

Studies focusing entirely on the symptomatology and experiences of men with FMS are scarce. In relation to walking ability, Heredia-Jimenez and Soto-Hermoso [18] reported that men with FMS displayed less speed, a shorter stride, and fewer steps per minute than control groups. Karper [19], for his part, reported positive findings in the maintenance of similar levels of functional capacity in two elderly men with FMS over a four-year period thanks to a program of gentle and continuous walking exercises. However, pain and fatigue are extremely limiting on a daily basis, with periods of calm fluctuating with periods of excruciating difficulty [10,20]. Sexual ability is also impaired since pain is related negatively to sexual satisfaction [21]. Men also suffer a range of cognitive disorders, from occasional problems with concentration to severe and complex memory issues that negatively impact their work and social lives [22]. Men also report a great deal of anxiety, especially about their financial situation, since most are unable to work full time. Men also reported frustration due to a lack of understanding of their symptoms and even in-credulity on the part of healthcare staff, so they often felt neglected by the healthcare system [23]. This perceived absence of a receptive listener suggests that healthcare staff should be provided more education and training in their role in improving the overall health of these patients, whose therapeutic non-compliance will only increase if they believe they are not being listened to and their communication with healthcare providers is ineffective [24]. Paulson and colleagues [23] reported that men had difficulties in expressing their feelings because they were afraid of being described as "weak", an observation attributed to social rules which dictate that men should not cry or complain as this would result in a loss of masculinity. Sallinen et al. [25] explored the interaction between men and FMS and observed a reconstruction of their participants' masculinity after diagnosis. It is necessary, therefore, not only to learn how to manage men's symptoms but also to find coherence in their lives via a new identity that is acceptable both to the individual and the community.

Taking into account the limited evidence provided by clinical manifestations of men with FMS, in this study, we aim to examine the physical and psychological symptoms of FMS in men, analyze the possible side effects of pharmacological therapies, and explore the impact of the illness, comparing the results between different sociodemographic groups (marital status, level of education, employment situation, and number of people living at home).

2. Materials and Methods

We used the sequential exploratory mixed method whose central component is qualitative methodology. Qualitative data are collected and analyzed first, followed by quantitative data, which are used primarily to augment qualitative data. Data analysis is connected, and integration occurs in the data interpretation stage and in the discussion [26]. For the qualitative phase, we recruited 10 men from a list provided by the Central Sensitization Syndromes Unit of Santa Maria Hospital in Lleida, Spain.

The type of sampling used was non-probabilistic or purposive [27]. All men were previously diagnosed with FMS by a rheumatologist using the American College of Rheumatology criteria [2]. Men who agreed to take part in the study were selected. Participants were included if they were over 18 years of age, had been diagnosed with FMS, and lived in Spain. Anyone diagnosed with dementia, schizophrenia, or bipolarity were excluded.

Subsequently, for the quantitative phase, the selection criteria were the same as the qualitative phase. We could obtain 13 more men (23 in total) from the same list. No participant dropped out of the study. All participants signed an informed consent form, a participant information sheet, and a voice-recording consent and release form.

2.1. Qualitative Data Collection

Focus groups were used. Unlike semi-structured interviews, this method uses group interaction as a direct data collection method [28]. Two focus groups, each with sessions lasting roughly two hours and held between May and June 2018, were guided by the following questions and sub-questions. A panel of experts assessed the face and content validity of the questions. This panel was composed of a rheumatologist, three members of his team, and a nurse. Some of the questions were as follows:

1. "What physical and mental symptoms cause you to experience this illness in your body?"
2. "What difficulties do you encounter?" "What causes this difficulty? Fatigue, pain or other symptoms?"
3. "You mentioned that you wake up tired. Don't you feel better in the morning after sleeping?"
4. "What medicines do you take?" "Do you feel any side effects from taking those medicines?"

The sessions were led by two authors of this study, both of whom are healthcare professionals. The first author is a Ph.D. student and the last is a Ph.D. supervisor, an expert in qualitative analysis. Each session was audio-recorded. The audio files were password-protected and professionally transcribed verbatim by the first and the last authors. Data collection ended when data saturation was achieved.

2.2. *Qualitative Data Analysis*

The transcriptions were examined using content analysis and inductive coding [29]. The first and the last authors (present at the focus groups) read and reviewed the transcriptions; many joint meetings were necessary. To reach a consensus, virtual meetings were held with the rest of the authors, who contributed diverse perspectives and experiences. All opinions were listened to, analyzed, and debated to reach a general consensus. FMS symptoms and the side effects of the pharmacological therapies were coded using Atlas.ti 8 data-management software. The codes were then compared in order to identify similarities and differences and divided into categories and subcategories [29]. All initial categories and subcategories, as well as those that emerged a posteriori, were discussed by the research team as a whole.

2.3. *Quantitative Data Collection*

An ad hoc questionnaire was used between March and May 2018 to obtain the participants' sociodemographic data. The variables used in the questionnaire were age, marital status, place of residence, nationality, educational level, employment status, and number of people living in their home. The questionnaire also included the patients' perceived levels of support (from 0 to 10, with a higher value indicating a higher level of support), pain (from 0 to 10, with a higher value indicating a higher level of pain), and health (from 0 to 10, with a higher value indicating a higher level of health), as well as the pharmacological therapies used and the patients' level of satisfaction with their treatment (from 0 to 10, with a higher value indicating a greater level of satisfaction). No analysis of validation, consistency, etc., was performed and we consider that, due to the type of information required, it was not necessary.

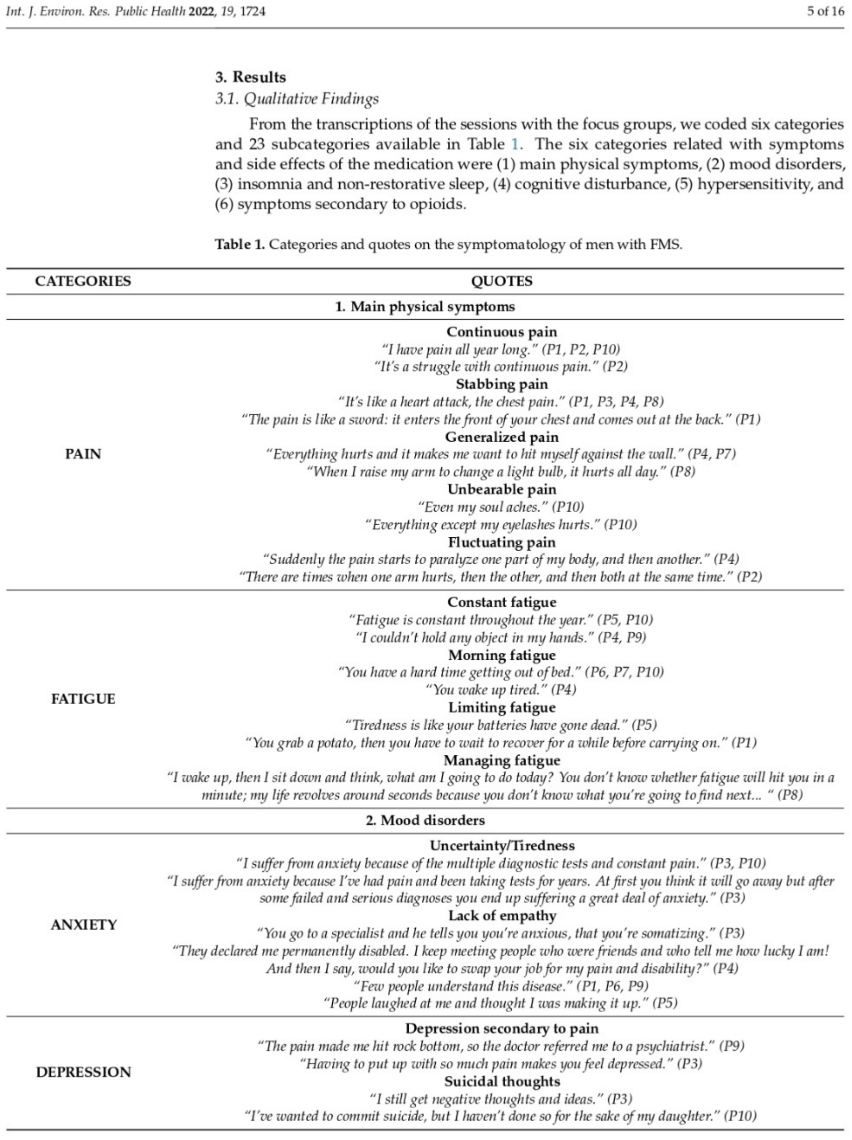
The Fibromyalgia Impact Questionnaire (FIQ) was used to analyze the impact of the illness. This questionnaire is widely used in the healthcare field [30] to assess the status, progression, and prognosis of patients with FMS by measuring aspects of their current health status that are considered to be most affected by the condition. It comprises 10 items, each evaluated on a scale of 0 to 10, and the highest possible score is 100—the higher the score, the greater the impact of the illness. The FIQ asks patients to answer questions on their ability to perform certain tasks in the previous week, such as how many days they felt well, how many days they missed work due to FMS, how they felt in general, and how much their pain or other symptoms made it difficult for them to perform their duties at work. Previous research has shown the FIQ questionnaire to be a valid test of the impact of fibromyalgia [31]. In the present study, Cronbach's alpha = 0.909.

2.4. *Quantitative Data Analysis*

A descriptive analysis of frequencies and percentages was conducted to reflect the participants' sociodemographic variables and pharmacological treatments. For continuous variables, a descriptive analysis was performed using mean, standard deviation, maximum, median, and minimum.

To detect statistically significant differences in the score of the FIQ according to the categorical variables, the non-parametric tests of the Mann–Whitney (two groups) and Kruskal–Wallis (multiple groups) were used. Statistical significance for these tests was set at $p < 0.05$. Non-parametric tests are based on measures of sample position and not on statistical parameters and are therefore less sensitive to outliers.

In the case of normality of variables, the results of parametric and non-parametric tests are similar. In the case of non-normality, the results of the non-parametric tests are more reliable. For "small" samples, these nonparametric tests are more robust. The data were collected and refined using a Microsoft Office Excel spreadsheet. Statistical analysis was conducted using IBM SPSS Statistics v.23.0.



3. Results

3.1. Qualitative Findings

From the transcriptions of the sessions with the focus groups, we coded six categories and 23 subcategories available in Table 1. The six categories related with symptoms and side effects of the medication were (1) main physical symptoms, (2) mood disorders, (3) insomnia and non-restorative sleep, (4) cognitive disturbance, (5) hypersensitivity, and (6) symptoms secondary to opioids.

Table 1. Categories and quotes on the symptomatology of men with FMS.

CATEGORIES	QUOTES
	1. Main physical symptoms
PAIN	**Continuous pain** *"I have pain all year long." (P1, P2, P10)* *"It's a struggle with continuous pain." (P2)* **Stabbing pain** *"It's like a heart attack, the chest pain." (P1, P3, P4, P8)* *"The pain is like a sword: it enters the front of your chest and comes out at the back." (P1)* **Generalized pain** *"Everything hurts and it makes me want to hit myself against the wall." (P4, P7)* *"When I raise my arm to change a light bulb, it hurts all day." (P8)* **Unbearable pain** *"Even my soul aches." (P10)* *"Everything except my eyelashes hurts." (P10)* **Fluctuating pain** *"Suddenly the pain starts to paralyze one part of my body, and then another." (P4)* *"There are times when one arm hurts, then the other, and then both at the same time." (P2)*
FATIGUE	**Constant fatigue** *"Fatigue is constant throughout the year." (P5, P10)* *"I couldn't hold any object in my hands." (P4, P9)* **Morning fatigue** *"You have a hard time getting out of bed." (P6, P7, P10)* *"You wake up tired." (P4)* **Limiting fatigue** *"Tiredness is like your batteries have gone dead." (P5)* *"You grab a potato, then you have to wait to recover for a while before carrying on." (P1)* **Managing fatigue** *"I wake up, then I sit down and think, what am I going to do today? You don't know whether fatigue will hit you in a minute; my life revolves around seconds because you don't know what you're going to find next... " (P8)*
	2. Mood disorders
ANXIETY	**Uncertainty/Tiredness** *"I suffer from anxiety because of the multiple diagnostic tests and constant pain." (P3, P10)* *"I suffer from anxiety because I've had pain and been taking tests for years. At first you think it will go away but after some failed and serious diagnoses you end up suffering a great deal of anxiety." (P3)* **Lack of empathy** *"You go to a specialist and he tells you you're anxious, that you're somatizing." (P3)* *"They declared me permanently disabled. I keep meeting people who were friends and who tell me how lucky I am! And then I say, would you like to swap your job for my pain and disability?" (P4)* *"Few people understand this disease." (P1, P6, P9)* *"People laughed at me and thought I was making it up." (P5)*
DEPRESSION	**Depression secondary to pain** *"The pain made me hit rock bottom, so the doctor referred me to a psychiatrist." (P9)* *"Having to put up with so much pain makes you feel depressed." (P3)* **Suicidal thoughts** *"I still get negative thoughts and ideas." (P3)* *"I've wanted to commit suicide, but I haven't done so for the sake of my daughter." (P10)*

Table 1. *Cont.*

CATEGORIES	QUOTES
	3. Insomnia and non-restorative sleep
INSOMNIA	**Insomnia secondary to pain** *"The pain stops me from going to sleep." (P6)* **Insomnia secondary to anxiety** *"I can't sleep because of the anxiety." (P5, P9)* *"I couldn't sleep; I kept waking up with anxiety, panic attacks and nightmares." (P5)* *"I have obsessive thoughts and nightmares, and sometimes I pee in bed." (P3)* **Irascibility** *"(…) you're in a bad mood and when you've had enough you get angry with people; they tell you you've changed, that you get upset at the slightest things." (P6)* *"Every day I tolerate people less and less; I can't concentrate when several people are speaking at the same time" (P10)* **Pharmacotherapy** *"I took a lot of antidepressants and anxiolytics because I had insomnia, but in the morning, I felt all drugged up." (P5)* *"Until they prescribed me some strong sleeping pills, I couldn't get any rest, I couldn't sleep." (P9)* *"I take diazepam (Valium®) to get to sleep; I couldn't get to sleep without it" (P1).*
	4. Cognitive disturbance
MEMORY	**Memory impairment** *"I forget about things a lot." (P8)* *"I take a lot of medication, but I can't even remember what half of it is for." (P4)* *"You have something to say and then when you're going to say it, you forget what you were going to say." (P1)* *"I have trouble expressing myself." (P4)*
	5. Hypersensitivity
HYPERSENSITIVITY	**Auditory hypersensitivity** *"If someone makes a low-pitched noise, it's as if they were piercing my eardrums." (P4)* *"I like silence. I appreciate it more now than before." (P10)* **Thermal hypersensitivity** *"When I used to do water aerobics, the water was warm for my friends but not for me. When I go underwater, it smarts." (P4)* *"Changes in temperature affect me. I can't stand the heat in summer. I can't even talk about the cold in winter; my tongue gets all prickly and inflamed." (P1)* *"The air conditioning makes my pain feel worse." (P3, P4)* *"I wear T-shirts and put on sunblock to protect myself. I get burned a lot in the sun." (P3)* **Chemical hypersensitivity** *"I can't breathe and my head hurts when I'm near perfumes, colognes, lacquers, creams and bleaches." (P1)* *"I avoid the perfume aisles in supermarkets." (P5)*
	6. Symptoms secondary to opioids
THE EFFECTS OF OPIOIDS	**Drowsiness/drug overdose** *"They prescribed me medicines that got me high." (P4)* *"I've even picked the girls up from school when I've been drugged up with morphine." (P1)* *"If you drink any alcohol with these drugs, then you've really messed up." (P6)* *"In the end you can't even remember your own name." (P8)* *"I've taken a lot of strong medicines; they make you feel sleepy and you can't lead a normal life or do the things you need to do for yourself." (P9)* **Dependence** *"The morphine doesn't do anything; it just takes away the pain. It took me two years to get off it; I didn't want to end up taking methadone, it just didn't make any sense." (P1)* *"I'm hooked on opioids; I've tried to stop taking them but after three days I really needed them so started taking them again. I always carry some 'candy' (morphine) with me." (P7)* *" I've learned to take morphine and then it's done." (P7)* *"I've gone through stages when I've not taken anything but then you've got to rush out and grab the pills." (P8)*

3.1.1. Main Physical Symptoms

The participants explained in great detail many of the signs and symptoms caused by FMS but expressed special concern with regard to pain and fatigue. They described their pain as continuous, "a constant struggle" and present "all year round". Some men also described it as a stabbing pain, "like a heart attack" or "like a sword" (P1). They also described it as generalized and unbearable, to the point of wanting to "hit myself against the wall" (P4, P7). The pain fluctuated in the sense that it was present in different parts of the body, sometimes started in one area and moved to another, and was sometimes present in different areas at the same time.

Fatigue was described as continuous and a daily presence in their lives. Some explained that it appeared early in the morning and did not go away even with rest: "you just wake up tired" (P4). The fatigue was also said to limit their activity, like a battery that is running out, and that it worsened with movement, conditioning simple actions such as "peeling potatoes and having to take breaks to be able to finish the job" (P1). Others said they could not even hold objects in their hands. They had to manage their fatigue well and give priority to certain actions. "(…) I sit down and think, what am I going to do today? My life revolves around seconds because you don't know what you're going to find next … " (P8).

3.1.2. Mood Disorders

The participants described their experiences with anxiety and depression. They attributed their anxiety to a large extent to the uncertainty they experienced before receiving their diagnosis: "(…) the doctors tell you that you're somaticizing. I suffer from anxiety because I've had pain and been taking tests for years" (P3). Failed diagnoses and a lack of empathy displayed by some health professionals as well as by their family and friends have had a negative impact on the mental health of these patients: "People laughed at me and thought I was making it up" (P5). Their constant pain has generated anxiety and led to depression: "Having to put up with so much pain makes you feel depressed" (P3). Depression has also led them to hit rock bottom and to think of suicide: "I've wanted to commit suicide, but I haven't done so for the sake of my daughter" (P10).

3.1.3. Insomnia and Non-restorative Sleep

Most participants do not sleep or rest very well, which they associate above all with their pain and anxiety. Some, for example, explained that they "would wake up in the middle of the night with panic attacks" (P5), while others could not fall asleep because of their "obsessive thoughts" (P3). Lack of sleep also altered their personality because they grow angry more often about things that had never affected them before: "(...) you're in a bad mood and when you've had enough, you get angry with people; they tell you you've changed, that you get upset at the slightest things" (P6). With regard to pharmacotherapy, the participants explained that they take sleeping pills to get to sleep: "I couldn't get any rest until they prescribed me some strong sleeping pills" (P9). They also take anxiolytics with hypnotic effects: "I take diazepam (Valium) to get to sleep; I couldn't get to sleep without it" (P1).

3.1.4. Cognitive Disturbance

Another symptom mentioned by participants at the focus group sessions was memory impairment. They reported having a poorer memory and feeling more forgetful, especially as the illness progressed: "I forget about things a lot" (P8). Some participants at the sessions could not remember what they wanted to say when it was their turn to speak. Others said they had difficulty expressing themselves verbally and that this may have been caused by their mixing and consuming a range of different drugs.

3.1.5. Hypersensitivity

All participants reported having some form of hypersensitivity. With regard to auditory hypersensitivity, for example, one participant reported that his eardrums "pierced" (P4) whenever he heard low-pitched noises, while another explained that he appreciated silence much more than he had before. Others described their hypersensitivity in more temperature-related terms. Some were affected by changes in temperature, while others could not stand the summer heat because it exacerbated their fatigue. Some complained that air conditioning intensified their pain or that they had to keep out of the sun because they burned easily. Others said they could not speak in cold weather because it made their tongues feel all prickly. They also reported being hypersensitive to chemical odors such as colognes and lacquers, which made them feel nauseous or dizzy or gave them headaches: "I avoid the perfume aisles in supermarkets" (P5).

3.1.6. Symptoms Secondary to Opioids

Many participants reported that although they felt their drugs were effective, they were unsure whether to take them because they led to unwanted side effects such as dependence, impaired daily functionality, or interaction with other substances such as alcohol. Although highly effective, powerful painkillers such as opioids led to feelings of "drowsiness" or "extreme relaxation" that made it impossible for them to lead their normal daily lives: "Strong medicines make you feel sleepy and you can't lead a normal life or do the things you need to do for yourself" (P9); "I've even picked the girls up from school when I've been drugged up with morphine." (P1). The same participant recognized that morphine only served to hide his pain: "It took me two years to get off morphine; I didn't want to end up taking methadone, it just didn't make any sense" (P1). Another major side effect, therefore, is dependency. Some men were very sincere: "I'm hooked on opioids and I can't stop taking them" (P7). One participant explained that he always carried some "candy" with him. Others reported they had stopped taking medication for a while but ended up re-taking it because they could not cope with the pain.

3.2. Quantitative Findings

The sociodemographic data of the 23 participants are shown in Table 2. The mean age of the participants was 51.7 years (SD = 9.64 years). Of these participants, 60.9% were married or with a partner, while 21.7% were separated or divorced; 26.1% lived alone, while 65.2% lived in a home comprising two to four people; only 13% of the participants worked, while 26.1% were retired; and 21.7% were unemployed, while 17.4% were off work with permanent disability. The average score for the perceived level of support from the family environment was 7 (SD = 2.5), while the average score for the perceived level of support from outsiders such as friends was 3 (SD = 1.3).

Table 3 shows the pharmacological therapies used. The participants were found to consume a large number of drugs to alleviate their symptoms. The drugs par excellence were antidepressants and anxiolytics (86.9%), followed by analgesics known as NSAIDs (non-steroidal anti-inflammatory drugs) (82.6%). Strong analgesics such as opioids accounted for 60.9% of the drugs taken by the participants, while Lyrica, for neuropathic pain, accounted for 52.2% and infiltrations accounted for 43.5%. Other drugs accounted for 12.9%. The participants' average level of satisfaction with their pharmacological treatments was 3.5 (SD = 3.2), while their perceived average level of pain at the time they completed the questionnaire was 8.2 (SD = 1.1) and their perceived average level of health was 4.6 (SD = 2.6).

Table 2. Characteristics of the participants.

CHARACTERISTICS	*n* = 23	%
Marital status		
Single	3	13.1
Married or men with a partner	14	60.9
Divorced or separated	5	21.7
Widower	1	4.3
Place of residence		
Lleida	15	65.2
County of Lleida	8	34.8
Nationality		
Spanish	22	95.7
Romanian	1	4.3
Level of education		
Primary education	6	26.1
Secondary education	15	65.2
University education	2	8.7
Employment situation		
Employed	3	13.1
Unemployed	5	21.7
Active with work disability	5	21.7
Permanent work disability	4	17.4
Retiree or pensioner	6	26.1
Number of people living at home		
One	6	26.1
Between two and four	15	65.2
More than 4	2	8.7
	M	**SD**
Age	51.7	9.6
Level of support received		
Family environment	7.0	2.5
Parents	6.6	3.6
Children	5.6	3.2
Partner	4.9	4.3
Friends	3.0	1.3

The results of the FIQ questionnaire (Table 4) show that the average score for the daily life activities ranged from 0 to 3. The activities most affected were preparing food (M = 2.5; SD = 1.0), walking several hundred meters (M = 2.5; SD = 1.2), and driving (M = 2.5; SD = 1.2). With regard to the participants' perceptions of the symptoms they had experienced in the previous week, the scores, which ranged from 0 to 10 (with higher scores indicating a worse perception), were as follows (from highest to lowest): feeling of tiredness (M = 8.9; SD = 1.2); feeling of tension, nervousness, and anxiety (M = 8.5; SD = 1.3); feeling of stiffness (M = 8.4; SD = 1.5); feeling of pain (M = 8.3; SD = 1.6); difficulty waking up in the morning (M = 8.3; SD = 1.9); and feeling sad or depressed (M = 8; SD = 2.4).

Table 3. Pharmacological treatments.

	n	%
Pharmacological Therapies Received To Date		
Antidepressants	20	86.9
Anxiolytics	20	86.9
NSAIDs	19	82.6
Opioids	14	60.9
Lyrica (antiepileptic/neuropathic pain)	12	52.2
Infiltrations	10	43.5
Others	3	12.9
Asthma inhalers	2	8.6
Antipsychotics	1	4.3
Don't know/no comment	2	8.6
	M (0–10)	**SD**
Current pain level	8.2	1.1
Perceived health level	4.6	2.6
Satisfaction with pharmacological treatments	3.5	3.2

Note: NSAIDs = non-steroidal anti-inflammatory drugs.

On average, the ability of the participants to work was scored as 7.4 (SD = 2.9). Due to their condition, they lost 3.8 days a week for work or tasks (SD = 2.6) and only felt well 1 day (SD = 1.8). The impact of the disease for all participants was very high, while the mean for the FIQ as a whole was M = 88.7 (SD = 8.2).

Table 5 shows the values of total FIQ according to participants' sociodemographic variables such as marital status, academic level, employment situation, and number of people living at their home. The table shows that the impact of the illness is slightly, though not statistically, greater in married men or men with a partner (M = 91.7, SD = 5.8) as compared to unmarried men (M = 88.3, SD = 8.6); those who have completed secondary or university education (M = 89.4, SD = 7.9) as compared to those who have completed primary education (M = 86.8, SD = 9.8); the unemployed (M = 95.2, SD = 3.6) as compared to those who were employed (M = 85.3, SD = 10.6), active with work disability (M = 89.8, SD = 4.1), had permanent work disability (M = 83.0, SD = 1.4), and retirees/pensioners (M = 87.8, SD = 12.3); and those living with more than two people (M = 90.0, SD = 6.8) as compared to those living alone (M = 85.0; SD = 11.3).

Individually, the greatest impact was reported by participant number 4 (55 years old; FIQ = 93.5), who was divorced, perceived a poor level of family support (4/10), had completed secondary education, was unemployed due to a disability, and consumed opioids. The least impact was reported by participant number 9 (50 years old; FIQ = 74.2). Although the profile of this participant was similar to participant number 4′s, he was younger and married, had better perceived family support (10/10), and did not consume opioids.

The results obtained through the mixed method suggest that the most common physical symptoms of our participants were pain and fatigue, which caused difficulties in activities of daily living (ADL). Anxiety and depression were also very present. Despite consuming mainly anxiolytics, antidepressants, and strong analgesics, the men were not satisfied with pharmacological treatment. In summary, there is a high impact of the disease on participants of the study.

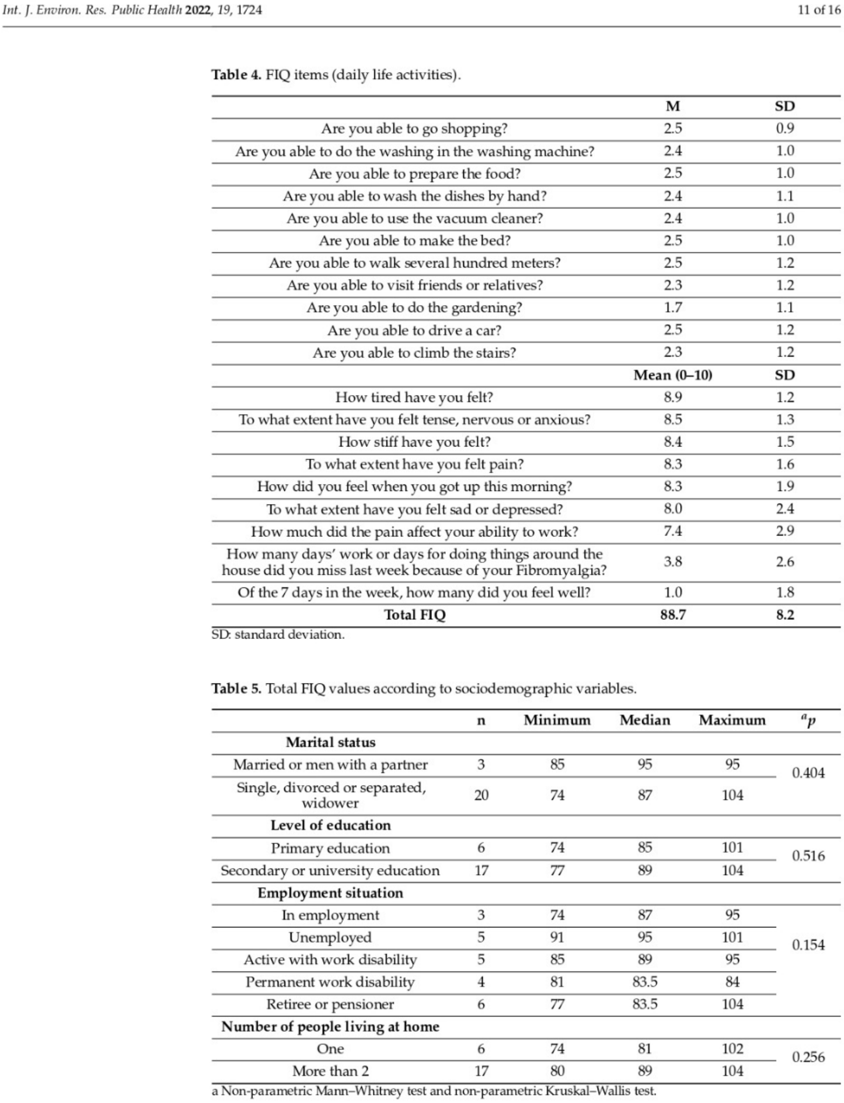


Table 4. FIQ items (daily life activities).

	M	**SD**
Are you able to go shopping?	2.5	0.9
Are you able to do the washing in the washing machine?	2.4	1.0
Are you able to prepare the food?	2.5	1.0
Are you able to wash the dishes by hand?	2.4	1.1
Are you able to use the vacuum cleaner?	2.4	1.0
Are you able to make the bed?	2.5	1.0
Are you able to walk several hundred meters?	2.5	1.2
Are you able to visit friends or relatives?	2.3	1.2
Are you able to do the gardening?	1.7	1.1
Are you able to drive a car?	2.5	1.2
Are you able to climb the stairs?	2.3	1.2
	Mean (0–10)	**SD**
How tired have you felt?	8.9	1.2
To what extent have you felt tense, nervous or anxious?	8.5	1.3
How stiff have you felt?	8.4	1.5
To what extent have you felt pain?	8.3	1.6
How did you feel when you got up this morning?	8.3	1.9
To what extent have you felt sad or depressed?	8.0	2.4
How much did the pain affect your ability to work?	7.4	2.9
How many days' work or days for doing things around the house did you miss last week because of your Fibromyalgia?	3.8	2.6
Of the 7 days in the week, how many did you feel well?	1.0	1.8
Total FIQ	**88.7**	**8.2**

SD: standard deviation.

Table 5. Total FIQ values according to sociodemographic variables.

	n	**Minimum**	**Median**	**Maximum**	^{a}p
Marital status					
Married or men with a partner	3	85	95	95	0.404
Single, divorced or separated, widower	20	74	87	104	
Level of education					
Primary education	6	74	85	101	0.516
Secondary or university education	17	77	89	104	
Employment situation					
In employment	3	74	87	95	0.154
Unemployed	5	91	95	101	
Active with work disability	5	85	89	95	
Permanent work disability	4	81	83.5	84	
Retiree or pensioner	6	77	83.5	104	
Number of people living at home					
One	6	74	81	102	0.256
More than 2	17	80	89	104	

a Non-parametric Mann–Whitney test and non-parametric Kruskal–Wallis test.

4. Discussion

Our quantitative results depicted participants as middle-aged men (51.7 years), as are the vast majority of studies in men with FMS, which reveal young participants with mean ages of 37 [21], 45 [18], 47 [22,25], 48 [23], and 52 years [20]. The only study that presented older participants was that of Karper [19], but he presented only two men, who were 61 and 69 years old. Most of the study participants were married or had a partner, as in the articles by Sallinen et al. [22,25], Kueny et al. [20], and Muraleetharan et al. [24]. In terms of work activity, less than half of our participants had a job, unlike the studies by Sallinen et al. [22,25] and Paulson et al. [23], where the majority were working or retired.

Regarding pharmacological treatment, our results agree with Rivera et al. [32], who state that the drugs most commonly used by patients with FMS are NSAIDs, benzodiazepines (anxiolytics/hypnotics), some anticonvulsants, and major opioids. In our study, a high use of NSAIDs was detected (82.6%). These are used very frequently in patients with FMS even though there are insufficient studies to recommend their use for pain management [32,33]. Their use should be rationed due to potential gastrointestinal, renal, and cardiovascular adverse effects [32]. The high use of opioids, which accounted for 60.9%, was also surprising. The use of opioids in patients with FMS is not usually effective because these patients have altered endogenous opioid activity, with low availability of opioid receptors [33]. The only opioid that has been shown to be effective in patients with fibromyalgia is tramadol (weak opioid) alone or in combination [32–34]. This probably reflects the severity of pain and associated disability in these patients, as well as the general limitation of all available pharmacological treatments for pain [35]. The use of opioids for the treatment of chronic nononcologic pain has increased dramatically in recent decades [32]. Opioid abuse for the treatment of chronic pain is a problem that is not limited to the USA, but also seems to affect European countries such as the one in our study (Spain) [35].

In summary, patients with FMS in Spain are overtreated with a combination of pharmacological therapies that lack adequate support from clinical practice guidelines, and some drugs that have not been shown to be effective and are harmful in the long term, such as major opioids, benzodiazepines, and NSAIDs, should be dispensed with [32,35]. This results in dissatisfaction on the part of the patients [35], which is also present in our study, with the participants' mean level of satisfaction with their pharmacological treatment being 3.5 (SD = 3.2).

Qualitative results, on the other hand, revealed that pain and fatigue were the clinical manifestations most often mentioned by the participants [20]. Pain, which was described here as chronic and generalized, is reported to be the main symptom of fibromyalgia [1]. The participants reported their painful experiences in great detail, defining pain as continuous, present throughout the year, and fluctuating in that it can begin in one part of the body and move to another. The intensity of the pain may also fluctuate during the day [20,23]. Being highly unpredictable, the pain causes much uncertainty, which makes it difficult to plan ahead. The patients have to live with intense pain on a daily basis, to the point that they sometimes want to "hit themselves against the wall". One participant even complained that a life free from pain should be a basic right for all. This intense pain notwithstanding, some days are calmer. Like participants in the study by Sallinen and Mengshoel [1], participants in our study explained that, although some days were better than others, they could not remember what it was like to live a whole day free from pain.

Our findings suggest that fatigue is a symptom that strongly limits every aspect of patients' lives. It fluctuates throughout the day and across all four seasons. Fatigue is compared to a battery gradually running out with every passing hour. Simple activities such as cooking or using a screwdriver are big problems because they have to take constant rests when performing any kind of task. They also mentioned that their fatigue is cumulative and does not subside completely with rest [20]. It is impossible to wake up without fatigue, and since fatigue is present first thing in the morning, they find it difficult just to get out of bed. A task as simple as making the bed is also beyond them, and some of them choose never to make it.

Another important symptom in patients with FMS is sleep disorder. As in a study of women affected by FMS and healthy control groups [36], participants in our study reported that poor sleep quality or insomnia directly contributes to greater fatigue. Pain, fatigue, and insomnia are thus closely linked. The lack of quality sleep leads to morning fatigue, which leads to less mobility, which in turn causes more pain. Simple physical tasks become a brick wall. As in the study by Sallinen and Mengshoel [1], the present study data suggest that the altered psychological state of men is a direct consequence of their chronic pain and fatigue, i.e., the deterioration in their health irritates them so much that they suffer from mental health problems. Participants reported feeling not only physical but also mental fatigue that leads to anxiety, depression, negative thoughts, and suicidal ideas [36]. They also attributed this effect on the psychological state to negative experiences, comorbidity with other illnesses, financial problems, failed diagnoses, suffering from a little-known illness, suffering from a "women's illness", waiting for a recovery that never arrives, a lack of empathetic listeners, and generally losing their previous life [10,20].

Participants in the present study also expressed special concern for memory impairment and cognitive dysfunction, also known as "fibrofog" [37]. Our data showed they often forget things and feel more absent-minded and that they sometimes dry up in the middle of a conversation. Kravitz and Katz in their review [38] reported the presence of cognitive deficits, which is a common, distressing, and disabling symptom among such patients. Fibromyalgia patients also display a poorer working memory compared to healthy individuals, while their short- and long-term memories also appear to be impaired [37].

FMS is grouped with other diseases as one of the Central Sensitization Syndromes [5]. These refer to individuals who are more sensitive to the sensory information they receive and are thus more prone to certain hypersensitivities [39]. Participants in the present study described symptoms such as auditory hypersensitivity to certain noises, thermal hypersensitivity to high and low temperatures, and hypersensitivity to odors from chemical products such as bleach, colognes, and ointments [39–42]. Auditory hypersensitivity in these patients has not yet been analyzed, however. We believe that these symptoms may be closely related to the irritability they experience due to FMS. With regard to thermal sensitivity, a recent study showed that people with chronic pain often report that their symptoms are aggravated by weather conditions. Participants in the study were seen to be more sensitive to hot and cold ambient temperatures than pain-free control subjects [38]. When preparing strategies to help such patients cope with hot or cold environments, for example, it would be interesting to remember that temperature can affect people with FMS. Some participants mentioned discomfort and headaches secondary to certain smells and chemical products such as colognes, bleaches, and air fresheners. However, research into hypersensitivity to certain odors or chemicals in patients with FMS is scarce. Sayılır and Çullu [41] reported that the olfactory function of patients with FMS is different from that of healthy control subjects. Using cranial MRI, they associated a low-volume olfactory bulb with impaired olfactory functions such as dentification, threshold, and discrimination with regard to certain odors. The above authors suggest that a smaller olfactory bulb may be caused by FMS-related changes to the CNS in the neural structures of affected individuals.

Finally, we observed that participants in the present study suffer from symptoms secondary to the drugs they take, especially opioids. The use of opioids for pain management in FMS is not recommended by any current clinical guidelines [32]. The men in our study reported being dependent on such substances. According to Fitzcharles and colleagues [43], people with FMS who took opioids showed signs of worse functional and cognitive status. In agreement with the participants in the above study, participants in the present study also reported having their daily functionality impaired, feeling drugged, and lacking energy. They also associated opioid use with reduced deep sleep and increased light sleep. Although opioids are believed to have sedative effects and are often prescribed to reduce pain and promote sleep onset, other results suggest that they may actually have the opposite effect [44]. Long-term opioid use is also associated with being unemployed and having a history of abuse with other substances, such as alcohol and illicit drugs [43].

In short, men with FMS are people who suffer from a chronic disease at a very early age, suffering numerous physical and mental symptoms that make it impossible to work or carry out basic life activities. Their pharmacological treatment is unsatisfactory, and they take drugs that are not recommended by clinical guidelines because they are ineffective or cause serious side effects. These findings show an important deficiency in the lack of research in relation to FMS, as well as a lack of male participants, lack of knowledge of FMS symptomatology in relation to men, and lack of effective and safe treatment.

5. Conclusions

This study has limitations. The sample size is small. This reduces the variability in the sample composition, limits generalization, and reduces statistical power for quantitative analyses. A greater number of participants may have increased sample diversity and have added new perspectives to the discussion. It should be noted, however, that this study has a larger and more diverse sample than many other studies that are currently available and it does capitalize on a mixed-methods approach. Another important limitation is that the data are entirely patient-reported, which may result in under- or over-reporting.

Despite the limits of this study, our results show that it is extremely important to continue investigating this subject to better understand the sociodemographic and clinical characteristics and perceptions of these patients. This study may be particularly useful in the public or community healthcare fields to help boost the visibility and recognition of male FMS patients, and in private healthcare, it could be an effective way to organize the future service of the providers.

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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and the study was approved by the Ethical Committee (approval nº: 4R18/223).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data underlying the findings described in this manuscript are available to interested researchers upon request.

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References

1. Sallinen, M.; Mengshoel, A.M. "I just want my life back!"—Men's narratives about living with fibromyalgia. *Disabil. Rehabil.* **2017**, *41*, 422–429. [CrossRef] [PubMed]
2. Wolfe, F.; Clauw, D.J.; Fitzcharles, M.-A.; Goldenberg, D.L.; Häuser, W.; Katz, R.L.; Mease, P.J.; Russell, A.S.; Russell, I.J.; Walitt, B. 2016 Revisions to the 2010/2011 fibromyalgia diagnostic criteria. *Semin. Arthritis Rheum.* **2016**, *46*, 319–329. [CrossRef] [PubMed]
3. Queiroz, L.P. Worldwide Epidemiology of Fibromyalgia. *Curr. Pain Headache Rep.* **2013**, *17*, 356. [CrossRef] [PubMed]
4. Wolfe, F.; Walitt, B.; Perrot, S.; Rasker, J.J.; Häuser, W. Fibromyalgia diagnosis and biased assessment: Sex, prevalence and bias. *PLoS ONE* **2018**, *13*, e0203755. [CrossRef]
5. Montesó-Curto, P.; Rosselló Aubach, L. *Compartir Experiencias, Combatir el Dolor*; Publicacions Universitat Rovira i Virgili: Tarragona, Spain, 2017. [CrossRef]

6. Araya-Quintanilla, F.; Gutiérrez-Espinoza, H.; Muñoz-Yánez, M.J.; Cavero-Redondo, I.; Álvarez-Bueno, C.; Martinez-Vizcaíno, V. Effectiveness of a multicomponent treatment versus conventional treatment in patients with fibromyalgia. *Medicine* **2020**, *99*, e18833. [CrossRef]
7. Giusti, E.M.; Castelnuovo, G.; Molinari, E. Differences in Multidisciplinary and Interdisciplinary Treatment Programs for Fibromyalgia: A Mapping Review. *Pain Res. Manag.* **2017**, *2017*, 7261468. [CrossRef]
8. Miró, E.; Martínez, M.P.; Sánchez, A.I.; Prados, G.; Lupiáñez, J. Men and women with fibromyalgia: Relation between attentional function and clinical symptoms. *Br. J. Health Psychol.* **2014**, *20*, 632–647. [CrossRef]
9. Heidari, F.; Afshari, M.; Moosazadeh, M. Prevalence of fibromyalgia in general population and patients, a systematic review and meta-analysis. *Rheumatol. Int.* **2017**, *37*, 1527–1539. [CrossRef]
10. Paulson, M.; Danielson, E.; Larsson, K.; Norberg, A. Men's descriptions of their experience of nonmalignant pain of fibromyalgia type. *Scand. J. Caring Sci.* **2001**, *15*, 54–59. [CrossRef]
11. Buskila, D.; Neumann, L.; Alhoashle, A.; Abu-Shakra, M. Fibromyalgia syndrome in men. *Semin. Arthritis Rheum.* **2000**, *30*, 47–51. [CrossRef]
12. Häuser, W.; Kühn-Becker, H.; von Wilmoswky, H.; Settan, M.; Brähler, E.; Petzke, F. Demographic and Clinical Features of Patients With Fibromyalgia Syndrome of Different Settings: A Gender Comparison. *Gend. Med.* **2011**, *8*, 116–125. [CrossRef] [PubMed]
13. Yunus, M.B.; Celiker, R.; Aldag, J.C. Fibromyalgia in men: Comparison of psychological features with women. *J. Rheumatol.* **2004**, *31*, 2464–2467. [PubMed]
14. Sánchez, A.I.; Valenza, M.C.; Martínez, M.P.; Miró, E.; Diener, F.N.; Lami, M.J.; Cáliz, R. Gender Differences in Pain Experience and Physical Activity of Fibromyalgia Syndrome Patients. *J. Musculoskelet. Pain* **2013**, *21*, 147–155. [CrossRef]
15. Aparicio, V.A.; Ortega, F.B.; Carbonell-Baeza, A.; Femia, P.; Tercedor, P.; Ruiz, J.; Delgado-Fernández, M. Are There Gender Differences in Quality of Life and Symptomatology Between Fibromyalgia Patients? *Am. J. Men's Health* **2012**, *6*, 314–319. [CrossRef] [PubMed]
16. Prados, G.; Miró, E.; Martínez, M.P.; Sánchez, A.I.; López, S.; Sáez, G. Fibromyalgia: Gender differences and sleep-disordered breathing. *Clin. Exp. Rheumatol.* **2013**, *31*, 102–110.
17. Segura-Jiménez, V.; Estévez-López, F.; Soriano-Maldonado, A.; Gallardo, I.C.A.; Delgado-Fernández, M.; Ruiz, J.R.; Aparicio, V.A. Gender Differences in Symptoms, Health-Related Quality of Life, Sleep Quality, Mental Health, Cognitive Performance, Pain-Cognition, and Positive Health in Spanish Fibromyalgia Individuals: The Al-Ándalus Project. *Pain Res. Manag.* **2016**, *2016*, 5135176. [CrossRef]
18. Heredia-Jimenez, J.M.; Soto-Hermoso, V.M. Kinematics gait disorder in men with fibromyalgia. *Rheumatol. Int.* **2013**, *34*, 63–65. [CrossRef]
19. Karper, W.B. Exercise Effects on Two Men With Fibromyalgia Syndrome. *Am. J. Men's Health* **2012**, *7*, 37–41. [CrossRef]
20. Kueny, A.; Montesó-Curto, P.; Lunn, S.; Mohabbat, A.B.; Clark, S.; Luedtke, C.; Vincent, A.; Ruschak, I.; Mateu-Gil, M.L.; Panisello-Chavarria, M.L.; et al. Fibromyalgia Pain and Fatigue Symptoms in Spanish and U.S. Men. *Pain Manag. Nurs.* **2021**, *22*, 423–428. [CrossRef]
21. Batmaz, I.; Sarıyıldız, M.A.; Dilek, B.; Inanır, A.; Demircan, Z.; Hatipoglu, N.; Atar, M.; Çevik, R.; Inanir, A. Sexuality of men with fibromyalgia: What are the factors that cause sexual dysfunction? *Rheumatol. Int.* **2012**, *33*, 1265–1270. [CrossRef]
22. Sallinen, M.; Mengshoel, A.M. Memory gaps, lost words and crucial mistakes—Men's experiences of cognitive difficulties in fibromyalgia. *Chronic Illn.* **2018**, *17*, 41–52. [CrossRef] [PubMed]
23. Paulson, M.; Norberg, A.; Danielson, E. Men living with fibromyalgia-type pain: Experiences as patients in the Swedish health care system. *J. Adv. Nurs.* **2002**, *40*, 87–95. [CrossRef] [PubMed]
24. Muraleetharan, D.; Fadich, A.; Stephenson, C.; Garney, W. Understanding the Impact of Fibromyalgia on Men: Findings From a Nationwide Survey. *Am. J. Men's Health* **2018**, *12*, 952–960. [CrossRef] [PubMed]
25. Sallinen, M.; Mengshoel, A.M.; Solbrække, K.N. "I can't have it; I am a man. A young man!"—Men, fibromyalgia and masculinity in a Nordic context. *Int. J. Qual. Stud. Health Well-Being* **2019**, *14*, 1676974. [CrossRef]
26. Creswell, J.W.; Clark, V.L.P. *Designing and Conducting Mixed Methods Research*; SAGE: Los Angeles, CA, USA, 2017.
27. Patton, M.Q. *Qualitative Research and Evaluation Methods*, 3rd ed.; Sage: Thousand Oaks, CA, USA, 2002.
28. Winke, P. Using focus groups to investigate study abroad theories and practice. *System* **2017**, *71*, 73–83. [CrossRef]
29. Sandelowski, M. What's in a name? Qualitative description revisited. *Res. Nurs. Health* **2010**, *33*, 77–84. [CrossRef]
30. Esteve-Vives, J.; Redondo, J.R.; Salvat, M.I.S.; de Gracia Blanco, M.; de Miquele, C.A. Propuesta de una versión de consenso del Fibromyalgia Impact Questionnaire (FIQ) para la población española. *Reumatol. Clín.* **2007**, *3*, 21–24. [CrossRef]
31. Bennett, R. The Fibromyalgia Impact Questionnaire (FIQ): A review of its development, current version, operating characteristics and uses. *Clin. Exp. Rheumatol.* **2005**, *23* (Suppl. 39), S154–S162.
32. Rivera, J.; Díaz del Campo, P.; Alegre, C.; Almirall, M.; Casanueva, B.; Castillo, C.; Montesó-Curto, P.; Palao, A.; Trillo, E.; Vallejo, M. Recomendaciones SER Sobre el Manejo de los Pacientes con Fibromialgia. 2020. Available online: https://www.ser.es/wp-content/uploads/2020/11/Recomendaciones_SER_FM_DEF.pdf (accessed on 2 July 2021).
33. Sarzi-Puttini, P.; Giorgi, V.; Marotto, D.; Atzeni, F. Fibromyalgia: An update on clinical characteristics, aetiopathogenesis and treatment. *Nat. Rev. Rheumatol.* **2020**, *16*, 645–660. [CrossRef]
34. Da Rocha, A.P.; Mizzaci, C.C.; Nunes Pinto, A.C.P.; Vieira, A.G.D.S.; Civile, V.; Trevisani, V. Tramadol for management of fibromyalgia pain and symptoms: Systematic review. *Int. J. Clin. Pract.* **2019**, *74*, e13455. [CrossRef]

35. Rico-Villademoros, F.; Postigo-Martin, P.; Garcia-Leiva, J.M.; Ordoñez-Carrasco, J.L.; Calandre, E.P. Patterns of pharmacologic and non-pharmacologic treatment, treatment satisfaction and perceived tolerability in patients with fibromyalgia: A patients' survey. *Clin. Exp. Rheumatol.* **2020**, *123*, 72–78.
36. Landis, C.A.; Frey, C.A.; Lentz, M.J.; Rothermel, J.; Buchwald, D.; Shaver, J.L. Self-Reported Sleep Quality and Fatigue Correlates With Actigraphy in Midlife Women With Fibromyalgia. *Nurs. Res.* **2003**, *52*, 140–147. [CrossRef] [PubMed]
37. Berber, J.D.S.S.; Kupek, E.; Berber, S.C. Prevalência de depressão e sua relação com a qualidade de vida em pacientes com síndrome da fibromialgia. *Rev. Bras. Reum.* **2005**, *45*, 47–54. [CrossRef]
38. Bell, T.; Trost, Z.; Buelow, M.T.; Clay, O.; Younger, J.; Moore, D.; Crowe, M. Meta-analysis of cognitive performance in fibromyalgia. *J. Clin. Exp. Neuropsychol.* **2018**, *40*, 698–714. [CrossRef]
39. Kravitz, H.M.; Katz, R.S. Fibrofog and fibromyalgia: A narrative review and implications for clinical practice. *Rheumatol. Int.* **2015**, *35*, 1115–1125. [CrossRef]
40. Lötsch, J.; Kraetsch, H.-G.; Wendler, J.; Hummel, T. Self-ratings of higher olfactory acuity contrast with reduced olfactory test results of fibromyalgia patients. *Int. J. Psychophysiol.* **2012**, *86*, 182–186. [CrossRef]
41. Sayılır, S.; Çullu, N. Decreased olfactory bulb volumes in patients with fibromyalgia syndrome. *Clin. Rheumatol.* **2017**, *36*, 2821–2824. [CrossRef]
42. Brink, A.F.T.; Goebel, A.; Berwick, R.; McCabe, C.S.; Bultitude, J.H. Sensitivity to Ambient Temperature Increases in Fibromyalgia and CRPS. *Pain Med.* **2020**, *21*, 3726–3729. [CrossRef]
43. Fitzcharles, M.-A.; Ste-Marie, P.A.; Gamsa, A.; Ware, M.A.; Shir, Y. Opioid Use, Misuse, and Abuse in Patients Labeled as Fibromyalgia. *Am. J. Med.* **2011**, *124*, 955–960. [CrossRef]
44. Curtis, A.F.; Miller, M.B.; Rathinakumar, H.; Robinson, M.; Staud, R.; Berry, R.B.; McCrae, C.S. Opioid use, pain intensity, age, and sleep architecture in patients with fibromyalgia and insomnia. *Pain* **2019**, *160*, 2086–2092. [CrossRef]

DISCUSSIÓ

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Avaluació quantitativa del dolor I l'impacte de la SFM:

Els resultats de la nostra revisió mostren que l'Escala Visual Analògica del dolor (EVA) i el Qüestionari d'Impacte de la Fibromiàlgia (FIQ) han estat les eines més utilitzades en els estudis seleccionats. Tot i això, creiem que la consideració de l'EVA des del punt de vista de la seva estructura (de 0 a 10 o de 0 a 100) i del comportament subjectiu del pacient al utilitzar-la posa en dubte la seva validesa. L'EVA és lineal i propensa a biaixos, per la qual cosa considerem que el seu ús hauria de limitar-se. D'altra banda, confiem en l'ús del FIQ, ja que és un instrument validat i àmpliament emprat en l'àmbit de la salut per avaluar l'estat, l'evolució i el pronòstic dels pacients amb la SFM (94).

El dolor en homes I dones amb la SFM:

Pel que fa la possible existència de diferències en les característiques del dolor segons gènere, detectem que la percepció subjectiva del dolor (EVA) era més elevada en les dones, al igual, que l'índex de dolor generalitzat (WPI). Les pitjors puntuacions a l'EVA les obtenen les dones, tant en els estudis que analitzen només dones (101, 102) com en els estudis mixtes (homes i dones) (1, 83, 103). Un estudi mixt realitzat recentment a Itàlia (2022) va detectar valors elevats a l'EVA en les dones amb significació estadística (103), tot i que cal tenir en compte que havien 172 dones i 29 homes, una baixa representació masculina. Per contra, cal destacar que altres estudis mixtes no van detectar diferències significatives en l'EVA dels seus pacients (Xina, 2021) (1) o els valors d'ambdós gèneres eren baixos i sense significació (EUA, 2018) (83). En definitiva, tot i que diverses proves epidemiològiques han demostrat que el dolor crònic predomina més entre les dones que entre els homes (105, 106), a la nostra revisió només ho detectem a l'estudi de la Xina, que va revelar diferències significatives en el dolor en funció del gènere. Les dones amb fibromiàlgia tenien pitjors valors al WPI, que avalua el dolor generalitzat, tot i això, els homes percebien la resta de símptomes amb més intensitat a l'escala SSS (Escala de Severitat dels Símptomes) (1).

Pel que fa la conceptualització del dolor en les persones afectades a nivell qualitatiu, observem que es descriu com insuportable i agonitzant en els pitjors moments (108). La cronicitat del dolor de la SFM causen molta incertesa i caos a la vida d'aquests pacients. Alhora, també els limita a tots els nivells de les seves relacions socials, ja que la naturalesa invisible del dolor fa que els pacients hagin de ser els seus propis defensors davant els altres, perquè no els creuen (107). L'acceptació de la nova realitat (pèrdua de la salut) i la cerca d'un oient receptiu ajuda a les persones a seguir endavant (76).

Impacte de la SFM I la seva comparativa transcultural:

Els resultats de la nostra revisió mostren que, per norma general, l'impacte de la fibromiàlgia (FIQ) va ser major en els homes, al igual, que les experiències de dolor i l'Escala de Catastrofització del Dolor (PCS). Les pitjors puntuacions del FIQ són les obtingudes pels 17 homes del nostre estudi transcultural (Espanya i EUA) (104). El FIQ, en un estudi mixt espanyol (2016), també va ser més elevat en els homes, però no hi van haver diferències significatives i la representació masculina era baixa, 21 homes en contraposició a 367 dones (90). També vam detectar un estudi italià mixt on eren les dones les que presentaven valors més elevats al FIQ (103) i, finalment, un estudi espanyol (2021) només amb dones també va presentar valors elevats al FIQ (102) encara que, cal destacar, que els valors del nostre estudi transcultural masculí seguien sent més alts que el d’aquestes dones (104).

Impacte de la SFM entre dos països (Espanya I EUA):

Durant la realització del nostre estudi masculí transcultural vam voler comparar l’impacte de la patologia entre països per detectar si existien contrastos culturals en les diferents polítiques sanitàries. Els resultats mostraven que els homes espanyols tenien valors més alts al FIQ, però les diferències només s'aproximaven a la significació estadística. Vam observar que els factors sociodemogràfics no influeixen directament en la percepció de la patologia, però representen factors valuosos (104) a tenir en compte com és el cas de l’existència o no d’activitat laboral que es descriu més avant.

El dolor I la fatiga en els homes de dos països (Espanya I EUA):

L’estudi transcultural en homes ens ha permès millorar la comprensió de l’experiència masculina del dolor i la fatiga associats a la SFM. Es van detectar diferències qualitatives i quantitatives entre les mostres. A nivell qualitatiu, els homes espanyols manifestaven dolor insuportable i punxant en major mesura que els homes nord-americans. Els espanyols també referien més termosensibilitat que els nord-americans, per contra, els homes nord-americans manifestaven un dolor més constant que els espanyols. A nivell quantitatiu, els homes espanyols van avaluar el dolor més alt que els homes dels Estats Units. Els homes van descriure específicament el seu dolor com a fluctuant, és a dir, que variava al llarg del temps, depenent del grau de treball i de la tensió corporal. Aquesta fluctuació del dolor també es va detectar en un estudi masculí de l’any 2017 a Finlàndia (107). Encara que comú a les dues cultures, aquesta fluctuació era més pronunciada a la mostra nord-americana. La fluctuació del dolor en els homes ha de tenir-se molt en compte per part dels professionals sanitaris, és important que siguin conscients d'aquesta naturalesa oscil·lant (108). També cal destacar que els homes van experimentar dolor en llocs específics més que un dolor de tipus generalitzat o difús. Només 4 dels 17 homes de l'estudi van informar de dolor "generalitzat".

Pel que fa la percepció de la fatiga, aquesta va ser descrita per la gran majoria dels participants d'ambdós països com una sensació d'esgotament excessiu, la incapacitat de sentir-se descansat després de dormir per la nit o la somnolència durant el dia. La fatiga afectava les seves vides en dificultar-los la realització d'activitats quotidianes com ara cuinar, dutxar-se o afaitar-se. A més, els homes de les dues mostres van notar que se'ls començaven a caure les coses i que els resultava difícil ajupir-se per recollir-les, cosa que els dificultava molt la feina manual.

En definitiva, les experiències comunes de les dues mostres es poden resumir en un dolor fluctuant (especialment amb el moviment), dolor localitzat i fatiga que els afecta a les activitats diàries i a les tasques manuals més bàsiques.

Troballes casuals destacables en els homes de l'estudi transcultural:

També volem destacar algunes dades interessants que vam obtenir de l'estudi comparatiu d'ambdós països. En primer lloc, vam detectar que menys homes espanyols estaven treballant activament mentre que la majoria dels homes dels EUA estaven treballant. La feina és un element important en la vida de les persones, ja que ofereix la capacitat de satisfer múltiples necessitats fonamentals, inclosa la necessitat de supervivència, identitat, relació i autodeterminació (109). Tot i això, Ferguson (2014) va concloure a la seva tesi doctoral que els homes percebien que la fibromiàlgia tenia efectes negatius en la seva vida laboral, inclosos els aspectes físics, mentals, psicològics i socials (110). La clínica de la fibromiàlgia als Estats Units no es considera com una discapacitat, sinó que s’espera que els pacients continuïn treballant, no obstant això, la clínica podria suggerir moderació o modificacions dins d'una feina, o si calgués, un canvi de carrera. Tot i que els homes d'aquest estudi van experimentar un augment del dolor amb el treball manual, els homes amb la SFM que no treballen poden experimentar estrès que pot afectar a l'experiència dels símptomes de la patologia en una escala encara més àmplia. L'ocupació és un diferenciador cultural dels dos sistemes sanitaris, ja que el sistema espanyol ofereix assistència sanitària universal i protecció de les pensions (111) i el model nord-americà anima o exigeix a les persones que treballin per obtenir assistència sanitària i altres prestacions. Els Estats Units es distingeixen de molts altres països per no oferir una cobertura sanitària universal (112). El concepte "rol de malalt" segons Parsons, basat en la teoria social clàssica d'Emile Durkheim i MaxWeber, defineix que “la persona malalta, com a conseqüència de la seva socialització en una determinada cultura, està motivada per recuperar-se, però també pot estar motivada, conscient o inconscientment, pel desig del “guany secundari” dels privilegis i exempcions de les tasques de la vida quotidiana que acompanyen el rol de malalt” (113). Als pacients del sistema espanyol se'ls permetia faltar a la feina a causa dels seus símptomes i diagnòstic de la SFM, mentre que els homes al sistema dels EUA van descriure menys opcions d'ocupació per adaptar-se.

En segon lloc, vam detectar que més homes espanyols que homes nord-americans van utilitzar tractaments farmacològics. Es va observar una important polifarmàcia a la mostra espanyola, incloent-hi opiacis, antiinflamatoris no esteroideus (AINE), antidepressius i ansiolítics; els homes espanyols també van informar d'una puntuació més intensa del dolor i més dolor punxant que els homes nord-americans. Aquests resultats apunten a un possible efecte del tractament farmacèutic en l'experiència del dolor. La hiperalgèsia induïda per opiacis és un trastorn en què els pacients que reben opiacis per reduir el dolor es poden tornar més sensibles als estímuls dolorosos (114). Segons el CAR no es recomanen els AINE de venda lliure ni els opioides per als pacients amb la SFM (115).

El tractament farmacològic dels homes amb la SFM al nostre país:

A l'últim article publicat es va treballar amb una mostra de 23 homes espanyols amb la SFM. Tenint en compte l'elevat ús de la polifarmàcia de la mostra espanyola al previ estudi transcultural, un dels objectius d'aquest article va ser estudiar més a fons el tractament farmacològic dels homes al nostre país.

Els nostres resultats van evidenciar un elevat ús d'AINE, representant un 82.6% de la mostra total. Els AINE s'utilitzen amb molta freqüència en pacients amb la SFM, encara que no hi ha prou estudis que recomanin el seu ús per al tractament del dolor (116, 117). El seu ús s'ha de racionar a causa dels potencials efectes adversos que causen a nivell gastrointestinal, renal i cardiovascular (116). També va sorprendre l'ús elevat d'opioides, que va suposar el 60.9% dels participants. L'ús d'opioides en pacients amb la SFM no sol ser eficaç perquè aquests pacients tenen una activitat opioide endògena alterada, amb baixa disponibilitat de receptors opioides (117). L'únic opioide que ha demostrat ser eficaç en pacients amb fibromiàlgia és el tramadol (opioide feble) sol o en combinació (116-118). Això reflecteix probablement la gravetat del dolor i la discapacitat associada a aquests pacients, així com la limitació general de tots els tractaments farmacològics disponibles per al dolor (31). L'ús d'opioides per al tractament del dolor crònic no oncològic ha augmentat dràsticament les últimes dècades (116). L'abús d'opioides per al tractament del dolor crònic és un problema que no es limita als EUA, sinó que també sembla afectar països europeus com el nostre (31). En resum, els pacients amb la SFM a Espanya estan sobretractats amb una combinació de teràpies farmacològiques que no tenen el suport adequat de les guies de pràctica clínica, i s'hauria de prescindir d'alguns fàrmacs que no han demostrat ser eficaços i són perjudicials a llarg termini, com els opioides majors, les benzodiazepines i els AINE (31, 116). Tota aquesta polifarmàcia només dóna com a resultat la insatisfacció dels pacients (31), també present en el nostre estudi, detectem que el nivell mitjà de satisfacció dels participants amb el seu tractament farmacològic és de 3.5 sobre 10 (DE=3.2).

Aprofundiment de la clínica de la SFM en els homes:

Els resultats qualitatius de l´últim article van revelar que el dolor i la fatiga eren les manifestacions clíniques més esmentades pels participants (104). El dolor, descrit com a crònic i generalitzat, és el principal símptoma de la fibromiàlgia (107). Els participants van relatar les seves experiències doloroses amb gran detall, definint el dolor com a continu, present durant tot l'any i fluctuant, és a dir, que pot començar a una part del cos i es desplaça a una altra. La intensitat del dolor també pot fluctuar durant el dia (76, 104). Com és molt irregular, el dolor provoca molta incertesa, cosa que dificulta als homes poder fer planificacions a curt i llarg termini. Els pacients han de viure amb un dolor intens diàriament, fins al punt que de vegades volen "donar-se contra la paret". Tot i aquest intens dolor, alguns dies són més tranquils. Igual que els participants (5 homes amb SFM) d’un estudi finlandès de l’any 2017 (107), els participants del nostre estudi van explicar que, encara que alguns dies eren millors que d’altres, no podien recordar com era viure un sol dia sense dolor.

Les nostres troballes suggereixen que la fatiga és un símptoma que limita molt tots els aspectes de la vida dels pacients. Fluctua al llarg del dia i les quatre estacions. La fatiga es compara amb una bateria que s'esgota gradualment cada hora que passa. Activitats tan senzilles com cuinar o utilitzar un tornavís suposen un gran problema perquè els pacients han de fer descansos constants en realitzar qualsevol tipus de tasca. També esmenten que la fatiga és acumulativa i no desapareix del tot amb el descans (104). És impossible despertar-se sense fatiga i, com que apareix a primera hora del matí, els resulta difícil aixecar-se del llit. Una tasca tan senzilla com fer el llit també els supera, i alguns opten per no fer-lo mai.

Un altre símptoma important en els pacients amb la SFM és el trastorn del son. Igual que en un estudi de dones afectades per la SFM i grups de control sans (119), els participants al nostre estudi van informar que la mala qualitat del son o l'insomni contribueixen directament a una fatiga més gran. Així, doncs, el dolor, la fatiga i l'insomni estan estretament relacionats. La falta d’un descans nocturn de qualitat condueix a la fatiga matutina, cosa que porta a una menor mobilitat, que alhora provoca més dolor. Les tasques físiques més senzilles es converteixen en un mur.

Igual que a l'estudi finlandès dels 5 homes (107), les dades del present estudi suggereixen que l'estat psicològic alterat dels homes és conseqüència directa del dolor crònic i la fatiga, és a dir, que el deteriorament de la salut els irrita tant que pateixen problemes de salut mental. Els participants van afirmar sentir fatiga no només física, sinó també mental, cosa que provoca ansietat, depressió, pensaments negatius i idees suïcides (119). També van atribuir aquest efecte sobre l'estat psicològic a experiències negatives, comorbiditat amb altres malalties, problemes econòmics, diagnòstics fallits, patir una malaltia poc coneguda, patir una "malaltia de dones", esperar una recuperació que mai arriba, manca d'oients empàtics i, en general, perdre la seva vida anterior (104, 108).

Els participants en aquest estudi també van expressar especial preocupació pel deteriorament de la memòria i la disfunció cognitiva, també coneguda com a *"fibrofog"* (120). Les nostres dades van mostrar que sovint obliden coses i se senten més despistades. Kravitz i Katz en la seva revisió del 2015 (121) van informar de la presència de dèficits cognitius, que és un símptoma comú, angoixant i incapacitant entre aquests pacients. Els pacients amb fibromiàlgia també mostren una memòria de treball més pobra en comparació amb els individus sans, mentre que la seva memòria a curt i llarg termini també sembla estar deteriorada (120).

La SFM s'agrupa amb altres patologies dins de les Síndromes de Sensibilització Central (4), que fan referència a individus més sensibles a la informació sensorial que reben i, per tant, més propensos a certes hipersensibilitats (121). Els participants en aquest estudi van descriure símptomes com a hipersensibilitat auditiva a determinats sorolls, hipersensibilitat tèrmica a temperatures altes i baixes i hipersensibilitat a olors de productes químics com lleixiu, colònies i pomades (122-124). Tot i això, encara no s'ha analitzat la hipersensibilitat auditiva en aquests pacients. Creiem que aquests símptomes poden estar estretament relacionats amb la irritabilitat que experimenten a causa de la SFM. Pel que fa a la termosensibilitat, un estudi recent va demostrar que les persones amb dolor crònic sovint informen que els seus símptomes es veuen agreujats per les condicions meteorològiques. Es va observar que els participants de l'estudi eren més sensibles a les temperatures ambientals càlides i fredes que els subjectes de control sense dolor (124). A l'hora de preparar estratègies per ajudar aquests pacients a enfrontarse a entorns càlids o freds, per exemple, seria interessant recordar que la temperatura pot afectar a les persones amb fibromiàlgia.

Alguns participants van esmentar malestar i mals de cap secundaris a certes olors i productes químics com colònies, lleixius i ambientadors. Tot i això, la investigació sobre hipersensibilitat a certes olors o productes químics en pacients amb fibromiàlgia és escassa. Un estudi realitzat a Turquia (123) van informar que la funció olfactiva dels pacients amb SFM és diferent de la dels subjectes de control sans. Utilitzant ressonància magnètica cranial, van associar un bulb olfactori de baix volum amb funcions olfactives alterades, com ara la identificació, el llindar i la discriminació de certes olors. Els autors esmentats suggereixen que un bulb olfactori més petit pot ser degut a canvis al SNC relacionats amb la SFM en les estructures neurals dels individus afectats.

Finalment, observem que els participants en aquest estudi pateixen símptomes secundaris als fàrmacs que prenen, especialment opiacis. Les instruccions clíniques actuals no recomanen l'ús d'opiacis per al tractament del dolor per a la SFM (116). Els homes del nostre estudi van declarar ser dependents de les substàncies esmentades. Segons un estudi del Canadà (2011), les persones amb la SFM que prenien opioides mostraven signes de pitjor estat funcional i cognitiu (125). D'acord amb els participants de l'estudi anterior, els participants del present estudi també van informar que la seva funcionalitat diària es veia afectada, se sentien drogats i no tenien energia. També van associar el consum d'opiacis amb una reducció del son profund i un augment del son lleuger. Tot i que es creu que els opioides tenen efectes sedants i sovint es prescriuen per reduir el dolor i afavorir l'aparició del son, altres resultats suggereixen que en realitat poden tenir l'efecte contrari (126). El consum prolongat d'opioides també s’associa a altes taxes d’atur i antecedents d'abús d'altres substàncies, com alcohol i drogues il·lícites (125).

LIMITACIONS DE L'ESTUDI

Aquesta tesi doctoral presenta certes limitacions que considerem necessàries nombrar.

En primer lloc, les mostres aportades són petites. Com hem comentat en diversos apartats, obtenir participants masculins afectats per la fibromiàlgia és difícil a causa del seu infradiagnòstic. Una mostra petita redueix la variabilitat en la composició de la mostra, limita la generalització i redueix la potència estadística en els anàlisis quantitatius. Un nombre més gran de participants podria haver augmentat la diversitat de la mostra i haver afegit noves perspectives. Tenint en compte això, seria interessant poder augmentar la mida en futurs estudis.

A l'estudi transcultural, la presència de dos grups de codificadors (de cada país) pot haver induït diferents enfocaments en la codificació i l'anàlisi de les dades, tot i això, les freqüents reunions d'equip van ajudar a crear coherència.

Inicialment la tesi estava centrada en analitzar la fibromiàlgia des d'una perspectiva de gènere, però per dificultats sorgides (pandèmia del COVID-19 i contratemps alhora de poder publicar) l'estudi s'ha acabat focalitzat més en la perspectiva dels homes. Tot i això, creiem que oferir la visió masculina d'aquesta patologia també és treballar amb gènere.

En un futur considerem que és important realitzar estudis amb homes i dones ampliant la mostra i que els dos representin valors similars. Per això, actualment estem duent a terme un estudi d'aquestes característiques (veure apartat futures línies d'investigació).

CONCLUSIONS

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- La bibliografia revela que el FIQ i l'EVA són els instruments quantitatius més utilitzats actualment per avaluar el dolor i l'impacte de la SFM. Recomanem l'ús del FIQ, un instrument validat i àmpliament utilitzat en l'àmbit de la salut, i desaconsellem, l'EVA per la seva característica lineal i subjectiva.
- La nostra revisió ha aportat informació actualitzada sobre el dolor de la SFM en homes i dones. S'ha observat que tant la percepció subjectiva del dolor (EVA) com l'índex de dolor generalitzat (WPI) són més elevats en les dones, el homes en canvi, tenen un pitjor impacte de la patologia (FIQ) i experiències més doloroses i severes (SSS). Tot i això, la majoria dels resultats no tenen significació estadística i aporten una representació masculina reduïda.
- La revisió revela que a nivell qualitatiu el dolor es descriu com imprevisible, insuportable en els pitjors moments i totalment invisible davant la societat (família-amics-sanitaris).
- L'estudi transcultural en homes de dos països manifesta que els homes espanyols tenen més impacte de la patologia (FIQ), refereixen més intensitat de dolor i estan polimedicats. Més homes nord-americans treballen activament (EUA no ofereixen cobertura sanitària universal). Tot i això, detectem que la feina és un element important i protector en la persona malalta, ja que satisfà múltiples necessitats fonamentals, com són la identitat i l'autodeterminació.
- A nivell qualitatiu, el dolor es descriu per la gran majoria dels homes dels dos països com fluctuant i localitzat, no generalitzat. Aquestes característiques no es descriuen per part de les dones,

aquest fet s’ha de tenir en compte per part del personal sanitari, ja que possiblement pugui ser un element distintiu.

- La fatiga està present en la gran majoria dels homes de l’estudi transcultural, tots la descriuen com un esgotament excessiu, somnolència i falta d’energia que no millora amb el descans.
- El tercer article presenta la gran varietat de símptomes que presenten els homes amb fibromiàlgia. Alguns comuns i típics de la patologia i d’altres secundaris a l’ús dels fàrmacs. Els sanitaris que treballen amb pacients amb la SFM haurien de tenir en compte els possibles efectes adversos de l'ús d'opiacis i AINE en les experiències de dolor dels pacients.
- L’últim estudi aporta “una radiografia” dels homes espanyols afectats per la SFM. Són persones que pateixen una malaltia crònica a una edat molt jove, patint nombrosos símptomes físics i mentals que els impossibiliten treballar o dur a terme activitats bàsiques. El seu tractament farmacològic és insatisfactori i prenen fàrmacs no recomanats per les guies clíniques, ja que produeixen greus efectes secundaris.

BIBLIOGRAFIA

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1. Jiao J, Cheng Z, Wang W, Zhao Y, Jiang Q. Demographic Characteristics and Clinical Features of Fibromyalgia in China: A Cross-Sectional Study. Rheumatology and Therapy [Internet]. 2021 Apr 4;8(2):817–31. Available from: http://dx.doi.org/10.1007/s40744-021-00303-1
2. Giorgi V, Sirotti S, Romano ME, Marotto D, Ablin JN, Salaffi F, et al. Fibromyalgia: one year in review 2022. Clinical and Experimental Rheumatology [Internet]. 2022 Apr 10; Available from: http://dx.doi.org/10.55563/clinexprheumatol/if9gk2
3. Gyorfi M, Rupp A, Abd-Elsayed A. Fibromyalgia Pathophysiology. Biomedicines [Internet]. 2022 Nov 29;10(12):3070. Available from: http://dx.doi.org/10.3390/biomedicines10123070
4. Roselló L. ¿Què hay de nuevo en la fibromialgia? En: (Montesó-Curto & Roselló). Compartir experiencias, combatir el dolor. Una visión de la fibromialgia desde el ámbito "bio-psico-social". Tarragona: Publicacions URV. 2017; Available from: http://dx.doi.org/10.17345/9788484245445
5. Collado A., et al. La fibromialgia: Consejos y tratamientos para el bienestar. Editorial AMAT, 2016.
6. Arnold LM, Gebke KB, Choy EH. Fibromyalgia: management strategies for primary care providers. Int J Clin Pract. 2016; 70:99–112.
7. Galvez-Sánchez CM. Depression and trait-anxiety mediate the influence of clinical pain on health-related quality of life in fibromyalgia. J Affect Disord. 2019.

8. Inanici FF, Yunus MB. History of fibromyalgia: Past to present. Current Pain and Headache Reports [Internet]. 2004 Oct; 8(5):369–78. Available from: http://dx.doi.org/10.1007/s11916-996-0010-6

9. Gowers WR. A Lecture on Lumbago: Its Lessons and Analogues: Delivered at the National Hospital for the Paralysed and Epileptic. BMJ [Internet]. 1904 Jan 16;1(2246):117–21. Available from: http://dx.doi.org/10.1136/bmj.1.2246.117

10. Smythe HA, Moldofsky H. Two contributions to understanding of the" fibrositis" syndrome. Bull. Rheum. Dis. 1977, 28, 928–931.

11. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia; report of the multicentre trial committee. Classic Papers in Rheumatology [Internet]. 2001 Dec 6;362–3. Available from: http://dx.doi.org/10.3109/9780203214237-177

12. Carrasco Acosta M del C, Jiménez de Madariaga C, Márquez Garrido M. Fibromialgia: cuando el dolor es una historia de vida. Índex de Enfermería [Internet]. 2010 Sep;19(2–3). Available from: http://dx.doi.org/10.4321/s1132-12962010000200027

13. Queiroz LP. Worldwide Epidemiology of Fibromyalgia. Current Pain and Headache Reports [Internet]. 2013 Jun; 26;17(8). Available from: http://dx.doi.org/10.1007/s11916-013-0356-5

14. Gayà, T. Font, et al. "Prevalence of fibromyalgia and associated factors in Spain." Clin. Exp. Rheumatol 123 (2020): 47-52.

15. Cabo-Meseguer A, Cerdá-Olmedo G, Trillo-Mata JL. Fibromialgia: prevalencia, perfiles epidemiológicos y costes económicos. Medicina Clínica [Internet]. 2017 Nov;149(10):441–8. Available from: http://dx.doi.org/10.1016/j.medcli.2017.06.008

16. Wolfe F, Clauw DJ, Fitzcharles M-A, Goldenberg DL, Katz RS, Mease P, et al. The American College of Rheumatology Preliminary

Diagnostic Criteria for Fibromyalgia and Measurement of Symptom Severity. Arthritis Care & Research [Internet]. 2010 Feb 23;62(5):600–10. Available from: http://dx.doi.org/10.1002/acr.20140

17. Kashikar-Zuck S, Ting TV. Juvenile fibromyalgia: current status of research and future developments. Nature Reviews Rheumatology [Internet]. 2013 Nov 26;10(2):89–96. Available from: http://dx.doi.org/10.1038/nrrheum.2013.177

18. Wolfe F, Brähler E, Hinz A, Häuser W. Fibromyalgia Prevalence, Somatic Symptom Reporting, and the Dimensionality of Polysymptomatic Distress: Results from a Survey of the General Population. Arthritis Care & Research [Internet]. 2013 Apr 23;65(5):777–85. Available from: http://dx.doi.org/10.1002/acr.21931

19. Maffei ME. Fibromyalgia: Recent Advances in Diagnosis, Classification, Pharmacotherapy and Alternative Remedies. International Journal of Molecular Sciences [Internet]. 2020 Oct 23;21(21):7877. Available from: http://dx.doi.org/10.3390/ijms21217877

20. Berrocal-Kasay, A. Fibromialgia: Un diagnóstico que debe ser oportuno. Revista Medica Herediana 25.2 (2014): 93-97.

21. Moioli, B. Fibromiàlgia: el reto se supera: evidencias, experiències y medios para el afrontamiento. 2013. Bilbao: Descle De Brouwer.

22. Wolfe F, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia. 1990. Arthritis & Rheumatism: Official Journal of the American College of Rheumatology 33.2: 160-172.

23. Wolfe, F. New american college of rheumatology criteria for fibromyalgia: A twenty-year journey. Arthritis Care Res. 2010, 62, 583–584.

24. Wolfe, F., et al. Fibromyalgia criteria and severity scales for clinical and epidemiological studies: A modification of the acr preliminary diagnostic criteria for fibromyalgia. J. Rheumatol. 2011, 38, 1113–1122.

25. Oncu J, Iliser R, Kuran B. Do new diagnostic criteria for fibromyalgia provide treatment opportunity to those previously untreated? J. Back Musculoskelet. Rehabil. 2013, 26, 437–443.

26. Wolfe F., et al. 2016 Revisions to the 2010/2011 fibromyalgia diagnostic criteria. Semin. Arthritis Rheum. 2016, 46, 319–329.

27. Wolfe F. Criteria for fibromyalgia? What is fibromyalgia? Limitations to current concepts of fibromyalgia and fibromyalgia criteria. Clin. Exp. Rheumatol. 2017, 35, S3–S5.

28. Espejo JA, Garcia-Escudero M, Oltra E. Unraveling the molecular determinants of manual therapy: An approach to integrative therapeutics for the treatment of fibromyalgia and chronic fatigue syndrome/myalgic encephalomyelitis. Int. J. Mol. Sci. 2018, 19, 19.

29. Thorpe J, Shum B, Moore RA, Wi_en PJ, Gilron I. Combination pharmacotherapy for the treatment of fibromyalgia in adults. Cochrane Database Syst. Rev. 2018, 2.

30. Mease PJ, Seymour, K. Fibromyalgia: Should the treatment paradigm be monotherapy or combination pharmacotherapy? Curr. Pain Headache Rep. 2008, 12, 399–405.

31. Rico-Villademoros F, Postigo-Martin P, Garcia-Leiva JM, Ordoñez-Carrasco JL, Calandre, EP. Patterns of pharmacologic and non-pharmacologic treatment, treatment satisfaction and perceived tolerability in patients with fibromyalgia: A patients'survey. Clin. Exp. Rheumatol. 2020, 123, 72–78.

32. Llàdser A-N, Montesó-Curto P, López C, Rosselló L, Lear S, Toussaint L, et al. Multidisciplinary rehabilitation treatments for patients

with fibromyalgia: a systematic review. European Journal of Physical and Rehabilitation Medicine [Internet]. 2022 Mar;58(1). Available from: http://dx.doi.org/10.23736/s1973-9087.21.06432-7

33. McCarberg BH. Clinical overview of fibromyalgia. Am. J. Ther. 2012, 19, 357–368.

34. Berger, A., Dukes, E., Martin, S., Edelsberg, J. & Oster, G. Characteristics and healthcare costs of patients with fibromyalgia syndrome. Int. J. Clin. Pract. 2007, 61, 1498–1508.

35. Lawson E, & Wallance, MS. Fibromyalgia: Clinical Guidelines and Treatments New York: 2015, Ed Springer.

36. Pastor Mira MA., et al. Predictores de la utilización de recursos sanitarios en la fibromialgia. Psicothema, 2010, vol. 22, no 4, p. 549-555.

37. Sanchez RJ, Uribe C, Li H, Alvir J, Deminski M, Chandran A, et al. Longitudinal evaluation of health care utilization and costs during the first three years after a new diagnosis of fibromyalgia. Current Medical Research and Opinion [Internet]. 2011 Jan 18;27(3):663–71. Available from: http://dx.doi.org/10.1185/03007995.2010.550605

38. Knight T, Schaefer C, Chandran, Zlateva G, Winkelmann, Perrot. Health-resource use and costs associated with fibromyalgia in France, Germany, and the United States. Clinico Economics and Outcomes Research [Internet]. 2013 Apr;171. Available from: http://dx.doi.org/10.2147/ceor.s41111

39. Berger A, Dukes E, Martin S, Edelsberg J, Oster G. Characteristics and healthcare costs of patients with fibromyalgia syndrome. International Journal of Clinical Practice [Internet]. 2007 Jul 26;61(9):1498–508. Available from: http://dx.doi.org/10.1111/j.1742-1241.2007.01480.x

40. Lacasse A, Bourgault P, Choinière M. Fibromyalgia-related costs and loss of productivity: a substantial societal burden. BMC Musculoskeletal Disorders [Internet]. 2016 Apr 16;17(1). Available from: http://dx.doi.org/10.1186/s12891-016-1027-6

41. Bossema, E. R., Van Middendorp, H., Jacobs, J. W. G., Bijlsma, J. W. J. & Geenen, R. Influence of weather on daily symptoms of pain and fatigue in female patients with fibromyalgia: a multilevel regression analysis. 2013 Arthritis Care Res. 65, 1019–1025.

42. Staud, R., Robinson, M. E., Weyl, E. E. & Price, D. D. Pain variability in fibromyalgia is related to activity and rest: role of peripheral tissue impulse input. 2010 J. Pain 11, 1376–1383.

43. Ghavidel-Parsa B, Bidari A, Atrkarroushan Z, Khosousi M. Implication of the Nociplastic Features for Clinical Diagnosis of Fibromyalgia: Development of the Preliminary Nociplastic-Based Fibromyalgia Features (NFF) Tool. ACR Open Rheumatology [Internet]. 2021 Dec 22;4(3):260–8. Available from: http://dx.doi.org/10.1002/acr2.11390

44. Kroenke K, Price RK. Symptoms in the community. Prevalence, classification, and psychiatric comorbidity. Arch Intern Med 1993;153(21):2474–80.

45. Sandıkçı, S. C. & Özbalkan, Z. Fatigue in rheumatic diseases. Eur. J. Rheumatol. 2015; 2, 109–113.

46. Arnold LM. Duloxetine and other antidepressants in the treatment of patients with fibromyalgia. Pain Med 2007; 8(2): S63–74.

47. Mease PJ, Russell IJ, Arnold LM, et al. A randomized, double-blind, placebo- controlled, phase III trial of pregabalin in the treatment of patients with fibromyal- gia. J Rheumatol 2008; 35(3): 502–14.

48. Ohayon MM. Prevalence and correlates of nonrestorative sleep complaints. Arch Intern Med 2005; 165(1): 35–41.

49. Moldofsky H. The significance, assessment, and management of nonrestorative sleep in fibromyalgia syndrome. CNS Spectr 2008; 13(3 Suppl 5): 22–6.

50. Mahowald MW. Restless leg syndrome and periodic limb movements of sleep. Curr Treat Options Neurol 2003;5(3):251–60.

51. Buskila D, Cohen H. Comorbidity of fibromyalgia and psychiatric disorders. Curr Pain Headache Rep 2007;11(5):333–8.

52. Løge-Hagen JS, Sæle A, Juhl C, Bech P, Stenager E, Mellentin A. Prevalence of depressive disorder among patients with fibromyalgia: Systematic review and meta-analysis. J Affect Disord. 2019; 245: 1098–105.

53. Gill, H. et al. The prevalence of suicidal behaviour in fibromyalgia patients. Prog. Neuropsychopharmacol. 2020; Biol. Psychiatry https://doi.org/10.1016/j.pnpbp.2020.110078

54. Glass JM. Fibromyalgia and cognition. J Clin Psychiatry 2008;69(2):20–4.

55. Park DC, Glass JM, Minear M, et al. Cognitive function in fibromyalgia patients. Arthritis Rheum 2001;44(9):2125–33.

56. Suhr JA. Neuropsychological impairment in fibromyalgia. Relation to depression, fatigue, and pain. J Psychosom Res 2003;55(4):321–9.

57. Grisart J, Van der LM, Masquelier E. Controlled processes and automaticity in memory functioning in fibromyalgia patients: relation with emotional distress and hypervigilance. J Clin Exp Neuropsychol 2002;24(8):994–1009.

58. Mathieu, N. [Somatic comorbidities in irritable bowel syndrome: fibromyalgia, chronic fatigue syndrome,and interstitial cystitis]. Gastroenterol. Clin. Biol; 2009, 33, S17–S25.

59. Nickel, J. C. et al. Interstitial cystitis/painful bladder syndrome and associated medical conditions with an emphasis on irritable bowel syndrome, fibromyalgia and chronic fatigue syndrome. J. Urol; 2010, 184, 1358–1363.

60. Yunus MB, Hussey FX, Aldag JC. Antinuclear antibodies and connective disease features in fibromyalgia syndrome: a controlled study. J Rheumatol 1993; 20: 1557-60.

61. Clauw DJ. The pathogenesis of chronic pain and fatigue syndromes, with special reference to fibromyalgia. Med Hypotheses. 1995; 44: 369-378.

62. Benedito Perez C. Feminismo, género y labores reproductivas. AusArt [Internet]. 2017 Jul 14;5(1). Available from: http://dx.doi.org/10.1387/ausart.17782

63. Sabsay L. ¿En los umbrales del género? Beauvoir, Butler y el feminismo ilustrado. Feminismo/s [Internet]. 2010;(15):119–35. Available from: http://dx.doi.org/10.14198/fem.2010.15.07

64. López de la Vieja, MT. Feminismo del pasado al presente. Salamanca: 2000. Ediciones Universidad Salamanca.

65. Pérez Garzón, JS. Historia del feminismo. Madrid: 2011, Catarata.

66. Barquet, M. Reflexiones sobre teorías de género, hoy. Bolivia: 2002, CIDES. Universidad Mayor de San Andrés.

67. Guerra López R. Persona, sexo y género. Los significados de la categoría «género» y el sistema «sexo/género» según Karol Wojtyła. Open Insight [Internet]. 2016 Jul 3;7(12):143. Available from: http://dx.doi.org/10.23924/oi.v7n12a2016.pp143-168.186

68. Vidal, M. Feminismo y ética. Cómo “feminizar” la moral. Madrid: 2000, PPC Editorial.

69. Valls-Lobet, C. Mujeres, salud y poder. Madrid: 2009, Ediciones Cátedra.

70. Rodríguez Pacios A. Desigualdades de género: en la salud y en la enfermedad. Cuestiones de género: de la igualdad y la diferencia [Internet]. 2010 Dec 15;(5):1. Available from: http://dx.doi.org/10.18002/cg.v0i5.3778

71. Pérez González L. Desigualdades de género en la medicación: un tortuoso recorrido por el Vademécum. Cuestiones de género: de la igualdad y la diferencia [Internet]. 2010 Dec 15;(5):63. Available from: http://dx.doi.org/10.18002/cg.v0i5.3781

72. Bochar Pizzaro, JE. Feminismos, perspectiva de género y psicoanálisis. Revista de investigación y divulgación sobre los estudios de género, 2017 (23) 35-63.

73. Seng JS, Clark MK, McCarthy AM, Ronis DL. PTSD and physical comorbidity among women receiving Medicaid: Results from service-use data. Journal of Traumatic Stress [Internet]. 2006;19(1):45–56. Available from: http://dx.doi.org/10.1002/jts.20097

74. Hernández Forero M, Tautiva H, Galindo L. Subdiagnóstico de la fibromialgia en hombres: revisión de la literatura y reporte de un caso. Revista Colombiana de Médicina Física y Rehabilitación [Internet]. 2014;24(2):158–66. Available from: http://dx.doi.org/10.28957/rcmfr.v24n2a9

75. Miró, E.; Martínez, M.P.; Sánchez, A.I.; Prados, G.; Lupiáñez, J. Men and women with fibromyalgia: Relation between attentional function and clinical symptoms. Br. J. Health Psychol. 2014, 20, 632–647.

76. Paulson, M.; Norberg, A.; Danielson, E. Men living with fibromyalgia-type pain: Experiences as patients in the Swedish healthcare system. J. Adv. Nurs. 2002, 40, 87–95.

77. Heidari, F.; Afshari, M.; Moosazadeh, M. Prevalence of fibromyalgia in general population and patients, a systematic review and meta-analysis. Rheumatol. Int. 2017, 37, 1527–1539.

78. Montesó-Curto P, García-Martinez M, Romaguera S, Mateu ML, Cubí-Guillén MT, Sarrió-Colas L, et al. Problems and solutions for patients with fibromyalgia: Building new helping relationships. Journal of Advanced Nursing [Internet]. 2017 Sep 15;74(2):339–49. Available from: http://dx.doi.org/10.1111/jan.13412

79. Miró, E., Diener, F. N., Martínez, M. P., Sánchez, A. I., & Valenza, M. C. Fibromyalgia in men and women: comparison of the main clinical symptoms. Psicothema, 2012; 24(1), 10-15.

80. Pérez, R, et al. Differences in sociodemographic, clinical, psychosocial and health care characteristics between men and women diagnosed with fibromyalgia. Revista clínica española, 2007; 207(9), 433-439.

81. Bartley, E.J.; Fillingim, R.B. Sex differences in pain: A brief review of clinical and experimental findings. Br. J. Anaesth. 2013, 111, 52–58.

82. Fauchon, C.; Meunier, D.; Rogachov, A.; Hemington, K.S.; Cheng, J.C.; Bosma, R.L.; Osborne, N.R.; Kim, J.A.; Hung, P.S.-P.; Inman, R.D.; et al. Sex differences in brain modular organization in chronic pain. Pain 2020, 162, 1188–1200.

83. Wolfe, F.;Walitt, B.; Perrot, S.; Rasker, J.J.; Häuser,W. Fibromyalgia diagnosis and biased assessment: Sex, prevalence and bias. PLoS ONE 2018, 13, e0203755.

84. Buskila, D.; Neumann, L.; Alhoashle, A.; Abu-Shakra, M. Fibromyalgia syndrome in men. Semin. Arthritis Rheum. 2000, 30, 47–51.

85. Häuser,W.; Kühn-Becker, H.; vonWilmoswky, H.; Settan, M.; Brähler, E.; Petzke, F. Demographic and Clinical Features of Patients With Fibromyalgia Syndrome of Different Settings: A Gender Comparison. Gend. Med. 2011, 8, 116–125.

86. Yunus, M.B.; Celiker, R.; Aldag, J.C. Fibromyalgia in men: Comparison of psychological features with women. J. Rheumatol. 2004, 31, 2464–2467.

87. Sánchez, A.I.; Valenza, M.C.; Martínez, M.P.; Miró, E.; Diener, F.N.; Lami, M.J.; Cáliz, R. Gender Differences in Pain Experience and Physical Activity of Fibromyalgia Syndrome Patients. J. Musculoskelet. Pain 2013, 21, 147–155.

88. Aparicio, V.A.; Ortega, F.B.; Carbonell-Baeza, A.; Femia, P.; Tercedor, P.; Ruiz, J.; Delgado-Fernández, M. Are There Gender Differences in Quality of Life and Symptomatology Between Fibromyalgia Patients? Am. J. Men’s Health 2012, 6, 314–319.

89. Prados, G.; Miró, E.; Martínez, M.P.; Sánchez, A.I.; López, S.; Sáez, G. Fibromyalgia: Gender differences and sleep-disordered breathing. Clin. Exp. Rheumatol. 2013, 31, 102–110.

90. Segura-Jiménez, V.; Estévez-López, F.; Soriano-Maldonado, A.; Gallardo, I.C.A.; Delgado-Fernández, M.; Ruiz, J.R.; Aparicio, V.A. Gender Differences in Symptoms, Health-Related Quality of Life, Sleep Quality, Mental Health, Cognitive Performance, Pain-Cognition, and Positive Health in Spanish Fibromyalgia Individuals: The Al-Ándalus Project. Pain Res. Manag. 2016, 5135176.

91. Moher, D. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. Ann. Intern. Med. 2009, 151, 264.

92. Peters, M.; Godfrey, C.; McInerney, P.; Munn, Z.; Trico, A.; Khalil, H. Chapter 11: Scoping Reviews. JBI Man. Evid. Synth. 2020, 1, 419–420.

93. Sandelowski, M. What's in a name? Qualitative description revisited. Res. Nurs. Health 2010, 33, 77–84.

94. Bennett, R. The Fibromyalgia Impact Questionnaire (FIQ): A review of its development, current version, operating characteristics and uses. Clin. Exp. Rheumatol. 2005, 23 (Suppl. 39), S154–S162.

95. Stone, TE.; Maguire, J.; Kang, SJ.; & Cha, C. Practical issues of conducting a Q methodology study: Lessons learned from a cross-cultural study. Advances in Nursing Science, 2017, 40(3), 291e299.

96. Creswell, J.W.; Clark, V.L.P. Designing and Conducting Mixed Methods Research; SAGE: Los Angeles, CA, USA, 2017.

97. Patton, M.Q. Qualitative Research and Evaluation Methods, 3rd ed.; Sage: Thousand Oaks, CA, USA, 2002.

98. Winke, P. Using focus groups to investigate study abroad theories and practice. System 2017, 71, 73–83.

99. Esteve-Vives, J.; Redondo, J.R.; Salvat, M.I.S.; de Gracia Blanco, M.; de Miquele, C.A. Propuesta de una versión de consenso del Fibromyalgia Impact Questionnaire (FIQ) para la población española. Reumatol. Clín. 2007, 3, 21–24.

100. Cleophas TJ, Zwinderman AH. Non-parametric Tests for Three or More Samples (Friedman and Kruskal-Wallis). Clinical Data Analysis on a Pocket Calculator [Internet]. 2016;193–7.

101. De Roa, P.; Paris, P.; Poindessous, J.L.; Maillet, O.; Héron, A. Subjective Experiences and Sensitivities inWomen with Fibromyalgia: A Quantitative and Comparative Study. Pain Res. Manag. 2018, 2018, 8269564.

102. Úbeda-D'Ocasar, E.; Valera-Calero, J.A.; Hervás-Pérez, J.P.; Caballero-Corella, M.; Ojedo-Martín, C.; Gallego-Sendarrubias, G.M. Pain Intensity and Sensory Perception of Tender Points in Female Patients with Fibromyalgia: A Pilot Study. Int. J. Environ. Res.Public Health 2021, 18, 1461.

103. Iannuccelli, C.; Lucchino, B.; Gioia, C.; Dolcini, G.; Rabasco, J.; Venditto, T.; Ioppolo, F.; Santilli, V.; Conti, F.; Di Franco, M. Gender influence on clinical manifestations, depressive symptoms and brain-derived neurotrophic factor (BDNF) serum levels in patients affected by fibromyalgia. Clin. Rheumatol. 2022, 41, 2171–2178.

104. Kueny, A.; Montesó-Curto, P.; Lunn, S.; Mohabbat, A.B.; Clark, S.; Luedtke, C.; Vincent, A.; Ruschak, I.; Mateu-Gil, M.L.; Panisello-Chavarria, M.L.; et al. Fibromyalgia Pain and Fatigue Symptoms in Spanish and U.S. Men. Pain Manag. Nurs. 2021, 22, 423–428.

105. Fillingim, R.B. Individual differences in pain: Understanding the mosaic that makes pain personal. Pain 2016, 158, S11.

106. Fillingim, R.B.; King, C.D.; Ribeiro-Dasilva, M.C.; Rahim-Williams, B.; Riley, J.L. Sex, Gender, and Pain: A Review of Recent Clinical and Experimental Findings. J. Pain 2009, 10, 447-485.

107. Sallinen, M.; Mengshoel, A.M. "I just want my life back!"—Men's narratives about living with fibromyalgia. Disabil. Rehabil. 2017, 41, 422–429.

108. Paulson, M., Danielson, E., Larsson, K., & Norberg, A. Men's descriptions of their experience of nonmalignant pain of fibromyalgia type. Scandinavian Journal of Caring Sciences, 2001, 15(1), 54e59.

109. Blustein DL, Kenna AC, Gill N, DeVoy JE. The Psychology of Working: A New Framework for Counseling Practice and Public Policy. The Career Development Quarterly [Internet]. 2008 Jun; 56(4):294–308. Available from: http://dx.doi.org/10.1002/j.2161-0045.2008.tb00095.x

110. Ferguson, M. The workplace lives of men with fibromyalgia: A qualitative study (Doctoral Thesis). School of Education. Indiana University. 2014. Retrieved from https://search.proquest.com/openview/d43764d40d184b0d444d8b84958054c3/1/

111. Conde-Ruiz, J. I., & Gonz_alez, C.I. From Bismarck to Beveridge: The other pension reform in Spain. SERIEs, 2016, 7, 461e490.

112. Institute of Medicine and National Research Council. U.S. health in perspective: Shorter lives, poorer health. The National Academies Press. 2013. Retrieved from https://doi.org/10.17226/13497.

113. Cockerham, W. C. Medical Sociology (8th ed., pp. 189e216). New York, 2017: Routledge.

114. Lee, M., Silverman, S. M., Hansen, H., Patel, V. B., & Manchikanti, L. A comprehensive review of opioid-induced hyperalgesia. Pain Physician, 2011, 14(2), 145e161.

115. American College of Rheumatology. Fibromyalgia. 2019. Retrieved from https://www. rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Fibromyalgia.

116. Rivera, J.; Díaz del Campo, P.; Alegre, C.; Almirall, M.; Casanueva, B.; Castillo, C.; Montesó-Curto, P.; Palao, A.; Trillo, E.; Vallejo, M.

Recomendaciones SER Sobre el Manejo de los Pacientes con Fibromialgia. 2020. Available:

https://www.ser.es/wpcontent/uploads/2020/11/Recomendaciones_SER_FM_DEF.pdf

117. Sarzi-Puttini, P.; Giorgi, V.; Marotto, D.; Atzeni, F. Fibromyalgia: An update on clinical characteristics, aetiopathogenesis and treatment. Nat. Rev. Rheumatol. 2020, 16, 645–660.

118. Da Rocha, A.P.; Mizzaci, C.C.; Nunes Pinto, A.C.P.; Vieira, A.G.D.S.; Civile, V.; Trevisani, V. Tramadol for management of fibromyalgia pain and symptoms: Systematic review. Int. J. Clin. Pract. 2019, 74, e13455.

119. Landis, C.A.; Frey, C.A.; Lentz, M.J.; Rothermel, J.; Buchwald, D.; Shaver, J.L. Self-Reported Sleep Quality and Fatigue Correlates With Actigraphy in Midlife WomenWith Fibromyalgia. Nurs. Res. 2003, 52, 140–147.

120. Berber, J.D.S.S.; Kupek, E.; Berber, S.C. Prevalência de depressão e sua relação com a qualidade de vida em pacientes com síndrome da fibromialgia. Rev. Bras. Reum. 2005, 45, 47–54.

121. Kravitz, H.M.; Katz, R.S. Fibrofog and fibromyalgia: A narrative review and implications for clinical practice. Rheumatol. Int. 2015, 35, 1115–1125.

122. Lötsch, J.; Kraetsch, HG.; Wendler, J.; Hummel, T. Self-ratings of higher olfactory acuity contrast with reduced olfactory test results of fibromyalgia patients. Int. J. Psychophysiol. 2012, 86, 182–186.

123. Sayılır, S.; Çullu, N. Decreased olfactory bulb volumes in patients with fibromyalgia syndrome. Clin. Rheumatol. 2017, 36, 2821–2824.

124. Brink, A.F.T.; Goebel, A.; Berwick, R.; McCabe, C.S.; Bultitude, J.H. Sensitivity to Ambient Temperature Increases in Fibromyalgia and CRPS. Pain Med. 2020, 21, 3726–3729.

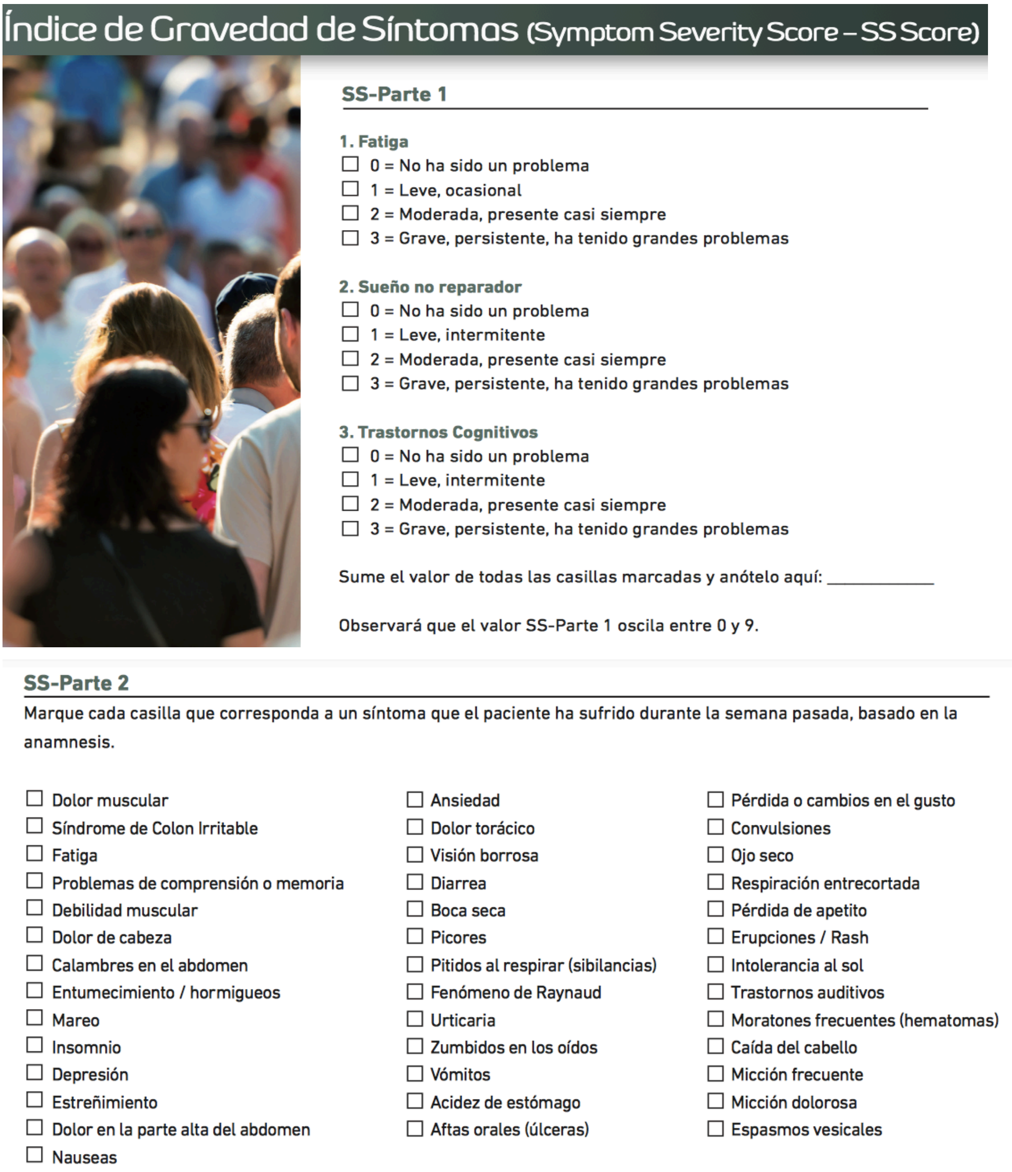
125. Fitzcharles, M.-A.; Ste-Marie, P.A.; Gamsa, A.; Ware, M.A.; Shir, Y. Opioid Use, Misuse, and Abuse in Patients Labeled as Fibromyalgia. Am. J. Med. 2011, 124, 955–960.

126. Curtis, A.F.; Miller, M.B.; Rathinakumar, H.; Robinson, M.; Staud, R.; Berry, R.B.; McCrae, C.S. Opioid use, pain intensity, age, and sleep architecture in patients with fibromyalgia and insomnia. Pain 2019, 160, 2086–2092.

ANNEXES

ANNEXES

ANNEX1: ESCALA DE SEVERITAT DELS SÍMPTOMES (SSS)



Índice de Gravedad de Síntomas (Symptom Severity Score – SS Score)

SS-Parte 1

1. Fatiga
☐ 0 = No ha sido un problema
☐ 1 = Leve, ocasional
☐ 2 = Moderada, presente casi siempre
☐ 3 = Grave, persistente, ha tenido grandes problemas

2. Sueño no reparador
☐ 0 = No ha sido un problema
☐ 1 = Leve, intermitente
☐ 2 = Moderada, presente casi siempre
☐ 3 = Grave, persistente, ha tenido grandes problemas

3. Trastornos Cognitivos
☐ 0 = No ha sido un problema
☐ 1 = Leve, intermitente
☐ 2 = Moderada, presente casi siempre
☐ 3 = Grave, persistente, ha tenido grandes problemas

Sume el valor de todas las casillas marcadas y anótelo aquí: ____________

Observará que el valor SS-Parte 1 oscila entre 0 y 9.

SS-Parte 2

Marque cada casilla que corresponda a un síntoma que el paciente ha sufrido durante la semana pasada, basado en la anamnesis.

☐ Dolor muscular
☐ Síndrome de Colon Irritable
☐ Fatiga
☐ Problemas de comprensión o memoria
☐ Debilidad muscular
☐ Dolor de cabeza
☐ Calambres en el abdomen
☐ Entumecimiento / hormigueos
☐ Mareo
☐ Insomnio
☐ Depresión
☐ Estreñimiento
☐ Dolor en la parte alta del abdomen
☐ Nauseas
☐ Ansiedad
☐ Dolor torácico
☐ Visión borrosa
☐ Diarrea
☐ Boca seca
☐ Picores
☐ Pitidos al respirar (sibilancias)
☐ Fenómeno de Raynaud
☐ Urticaria
☐ Zumbidos en los oídos
☐ Vómitos
☐ Acidez de estómago
☐ Aftas orales (úlceras)
☐ Pérdida o cambios en el gusto
☐ Convulsiones
☐ Ojo seco
☐ Respiración entrecortada
☐ Pérdida de apetito
☐ Erupciones / Rash
☐ Intolerancia al sol
☐ Trastornos auditivos
☐ Moratones frecuentes (hematomas)
☐ Caída del cabello
☐ Micción frecuente
☐ Micción dolorosa
☐ Espasmos vesicales

SS-Parte 2

Cuente el número de síntomas marcados y anótelo aquí: ______________________
Si tiene 0 síntomas, su puntuación es 0
Entre 1 y 10, su puntuación es 1
Entre 11 y 24, su puntuación es 2
25 o más, su puntuación es 3

Anote aquí su puntuación de la SS-Parte 2 (entre 0 y 3): ______________________

Suma de su puntuación SS-Parte 1+ SS-Parte 2 = ____________________________

Compruebe que la puntuación se encuentre entre 0 y 12 puntos.

Un paciente cumple los criterios de diagnóstico de la FM si están presentes las siguientes condiciones:

Índice de Dolor Generalizado (Widespread pain Index = WPI) igual ó mayor de 7 y un Índice de Gravedad de Síntomas (Sympton Severity Score = SS) igual o mayor de 5 ó un WPI de 3 a 6 y un SS igual ó mayor de 9.

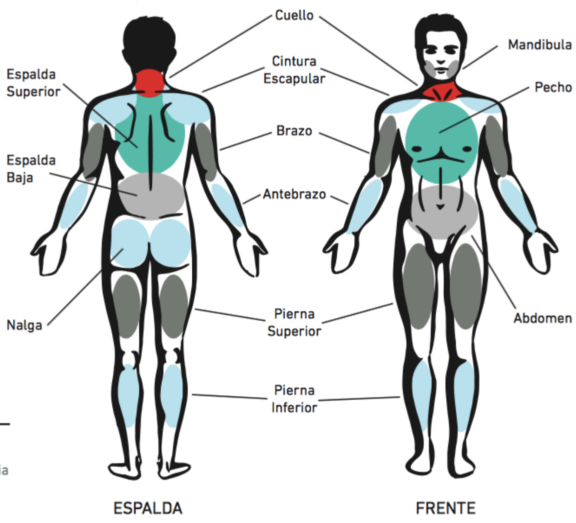
Los síntomas han estado presentes en un nivel similar durante los últimos 3 meses.

No existe otra patología que pueda explicar el dolor.

ANNEX2: ÍNDEX DE DOLOR GENERALITZAT (WPI)

Índice de Dolor Generalizado
Widespread Pain Index (WPI)

Wolfe F, Clauw DJ, Fitzcharles MA, Goldenberg DL, Katz RS, Mease P, Russell AS, Russell IJ, Winfield JB, Yunus MB.
The American College of Rheumatology preliminary diagnostic criteria for fibromyalgia and measurement of symptom severity.
Arthritis Care Res,2010;62:600-10.



Ponga una cruz sobre cada área en la que el paciente ha sentido dolor durante la semana pasada, teniendo en cuenta que no se deben incluir dolores producidos por otras enfermedades que sepa que sufre (artritis, lupus, artrosis, tendinitis, etc.):

- ☐ Cintura Escapular Izquierda
- ☐ Cintura Escapular Derecha
- ☐ Brazo Superior Izquierdo
- ☐ Brazo Superior Derecho
- ☐ Brazo Inferior Izquierdo
- ☐ Brazo Inferior Derecho
- ☐ Nalga Izquierda
- ☐ Nalga Derecha
- ☐ Pierna Superior Izquierda
- ☐ Pierna Superior Derecha
- ☐ Pierna Inferior Izquierda
- ☐ Pierna Inferior Derecha
- ☐ Mandíbula Izquierda
- ☐ Mandíbula Derecha
- ☐ Pecho (Tórax)
- ☐ Abdómen
- ☐ Cuello
- ☐ Espalda Superior
- ☐ Espalda Inferior

Cuente el número de áreas que ha marcado y anótelo aquí: ____________

Observará que el valor WPI oscila entre 0 y 19.

ANNEX3: CONSENTIMENT INFORMAT

Vostè ha estat convidat/da a participar en un estudi aplicant metodologia mixta sobre la **síndrome de fibromiàlgia**. Aquest projecte s'està duent a terme per un equip multidisciplinari en dos països, Espanya i EEUU.

Degut als pocs estudis existents sobre la patologia, és de gran interès obtenir nous coneixements per incorporar-los a la pràctica assistencial i millorar la salut tenint en compte la perspectiva de gènere. Realitzarem una comparació de gènere tant en símptomes com en percepció de la malaltia, ja que en serà de gran utilitat per a millorar la relació d'ajuda per part dels diferents professionals sanitaris. Si accepta participar-hi, se us demanarà contestar activament a uns qüestionaris i preguntes durant la realització de l'entrevista. Durant la realització d'aquesta última és important que tingui en compte que la sessió serà enregistrada amb gravadora de veu per a la seva posterior transcripció i anàlisi.

Totes les dades entregades seran únicament utilitzades amb finalitat investigadora i **confidencial**, mantenint en tot moment l'anonimat i garantint el seu dret a la intimitat. (**Llei 15/1999**, de 13 de desembre, de protecció de dades de caràcter personal).

Si ha decidit acceptar, si us plau entengui que la seva participació és completament **voluntària** i que té dret d'abstenir-se en qualsevol moment de l'estudi. A més, rebrà una còpia d'aquest document. Si té alguna pregunta o desitja més informació, contacti a: ilga.ruschak@urv.cat o al telèfon 670903401.

La seva **signatura** en aquest document reflexa que ha decidit participar-hi després d'haver llegit i discutit la informació aportada:

Firma del/la participant **Data**

ANNEX4: DADES SOCIODEMOGRÀFIQUES I CLÍNIQUES

DADES SOCIODEMOGRÀFIQUES
Edat
Sexe al nàixer ☐ Home ☐ Dona
Identitat de Gènere (si és diferent a la del naixement) ☐ Home ☐ Dona ☐ Ningun dels dos ☐ Renuncio a contestar
Estat Civil ☐ Solter ☐ Casat o en parella ☐ Divorciat o separat ☐ Vidu
Localitat ☐ Terres de l'Ebre ☐ Lleida ☐ USA **Ciudad ………………………………………………………………………………….**
Nacionalitat ☐ Espanyo ☐ USA ☐ Altres nacionalitats Quina: ……………
Raça ☐ Espanyol ☐ Marroquí ☐ Romania ☐ Blanco/Caucàsic ☐ Negro o afroamericà ☐ Indi americà ☐ Hawaià o altres illes del Pacífic ☐ Asiàtic ☐ Multiracial Altres…………………………………………………………………………………………
Nivell d'Estudis ☐ Estudis Primaris ☐ Estudis Secundaris ☐ Estudis Universitaris
Situació Ocupacional ☐ Treballador Actiu ☐ Paro ☐ Incapacitat Laboral ☐ Incapacitat Permanent ☐ Jubilat/ Pensionista
Número de Persones que conviuen al Domicili ☐ Una ☐ Entre dos y quatre ☐ Més de quatre
Se sent recolzat per l'entorn familiar (de 0 a 10)
Recolzament rebut per la parella (de 0 a 10). Si tenen
Recolzament rebut pels pares (de 0 a 10). Si tenen
Recolzament rebut pels fills (de 0 a 10). Si tenen
Recolzament rebut pels amics (de 0 a 10)

1. Causes identificades com a desencadenants de la malaltia

☐ NS/NC
☐ Problemes laborals
☐ Permanència d'estrès
☐ Problemes personals
☐ Altres (descriure):
☐ Diagnòstic anterior de malaltia
☐ Problemes de relació amb la parella
☐ Sobrecarrega de treball

....
....
....

2. Temps des de l'inici dels simptomes fins el diagnòstic (anys):

3. Temps de convivència amb la patologia (anys):

4. Teràpies farmacològiques rebudes fins l'actualitat

☐ NS/NC

☐ Opiacis ☐ AINES ☐ Infiltracions ☐ Antidepressius ☐ Ansiolítics

Altres (descriure):

....
....
....

5. Teràpies no-farmacològiques rebudes fins l'actualitat

Fitoteràpia Teràpia de grup Psicoteràpia Individual Ioga

Massatges Musicoteràpia

Altres (descriure):

....
....
....

6. Satisfacció amb els tractaments farmacològics (0-10):

7. Satisfacció amb els tractaments no-farmacològics (0-10):

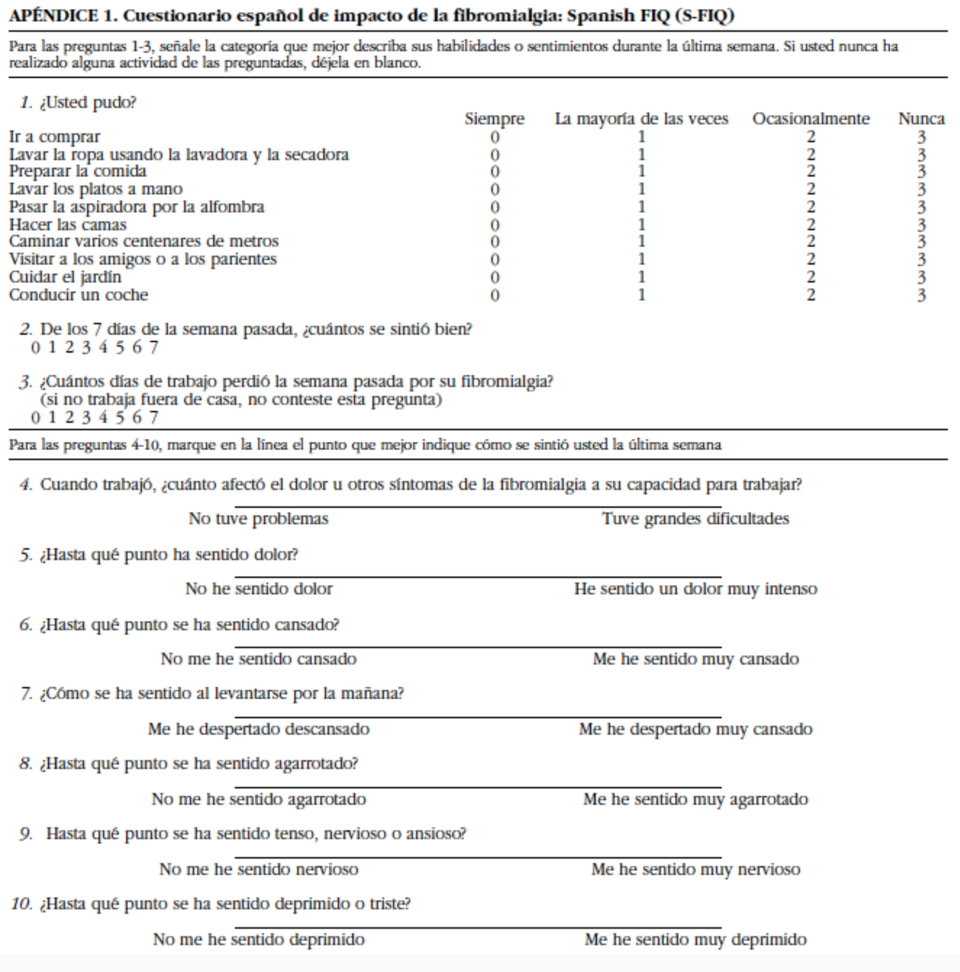
8. Satisfacció amb el sistema sanitari públic (0-10):

ANNEX5: ENTREVISTA SEMIESTRUCTURADA

Aquesta entrevista té l'objectiu d'explorar la percepció de la patologia que tenen els participants des d'un àmbit biopsicosocial i un enfoc fenomenològic.

1. Descrigui els signes i símptomes que presenta a causa de la patologia.
2. Com afronta diàriament viure amb la malaltia? Quines emocions li desperta?
3. Els fet de patir aquesta patologia, quines dificultats ha presentat o presenta actualment? Que li sembla que es consideri una malaltia de dones?
4. Realitza exercici físic? En cas afirmatiu li és beneficiós? Li ajuda amb la clínica de la malaltia?

ANNEX6: QÜESTIONARI D’IMPACTE DE LA FIBROMIÀLGIA (FIQ)



APÉNDICE 1. Cuestionario español de impacto de la fibromialgia: Spanish FIQ (S-FIQ)

Para las preguntas 1-3, señale la categoría que mejor describa sus habilidades o sentimientos durante la última semana. Si usted nunca ha realizado alguna actividad de las preguntadas, déjela en blanco.

1. ¿Usted pudo?

	Siempre	La mayoría de las veces	Ocasionalmente	Nunca
Ir a comprar	0	1	2	3
Lavar la ropa usando la lavadora y la secadora	0	1	2	3
Preparar la comida	0	1	2	3
Lavar los platos a mano	0	1	2	3
Pasar la aspiradora por la alfombra	0	1	2	3
Hacer las camas	0	1	2	3
Caminar varios centenares de metros	0	1	2	3
Visitar a los amigos o a los parientes	0	1	2	3
Cuidar el jardín	0	1	2	3
Conducir un coche	0	1	2	3

2. De los 7 días de la semana pasada, ¿cuántos se sintió bien?
0 1 2 3 4 5 6 7

3. ¿Cuántos días de trabajo perdió la semana pasada por su fibromialgia?
(si no trabaja fuera de casa, no conteste esta pregunta)
0 1 2 3 4 5 6 7

Para las preguntas 4-10, marque en la línea el punto que mejor indique cómo se sintió usted la última semana

4. Cuando trabajó, ¿cuánto afectó el dolor u otros síntomas de la fibromialgia a su capacidad para trabajar?

No tuve problemas	Tuve grandes dificultades

5. ¿Hasta qué punto ha sentido dolor?

No he sentido dolor	He sentido un dolor muy intenso

6. ¿Hasta qué punto se ha sentido cansado?

No me he sentido cansado	Me he sentido muy cansado

7. ¿Cómo se ha sentido al levantarse por la mañana?

Me he despertado descansado	Me he despertado muy cansado

8. ¿Hasta qué punto se ha sentido agarrotado?

No me he sentido agarrotado	Me he sentido muy agarrotado

9. Hasta qué punto se ha sentido tenso, nervioso o ansioso?

No me he sentido nervioso	Me he sentido muy nervioso

10. ¿Hasta qué punto se ha sentido deprimido o triste?

No me he sentido deprimido	Me he sentido muy deprimido

ANNEX7: COMITÉ ÈTIC

IDIAP
Jordi Gol

INFORME DEL COMITÈ ÈTIC D'INVESTIGACIÓ CLÍNICA

Rosa Morros Pedrós, Presidenta del Comitè Ètic d'Investigació Clínica de l'IDIAP Jordi Gol.

CERTIFICA:

Que aquest Comitè en la reunió del dia 26/06/2019, ha avaluat el projecte ***Percepción y experiència del síndrome de Fibromialgia en hombres: un estudio comparativo entre España y USA*** amb el codi **P18/073** presentat per l'investigador/a **Alessandra Queiroga Gonçalves.**

Considera que respecta els requisits ètics de confidencialitat i de bona pràctica clínica vigents.

Rosa Morros

Barcelona, a 05/07/2019

ANNEX8: COMITÉ ÈTIC

Institut Català de la Salut
Hospital Universitari
Arnau de Vilanova

El Comité de Ética de la Investigación con medicamentos en la reunión de 28 de mayo de 2019, acta 6/2019, informó favorablemente la solicitud del proyecto de investigación titulado: **"Percepción de la Experiencia de Enfermedad en Hombres con Fibromialgia: Un estudio piloto cualitativo"**, de código CEIC-1898, con el Dr. Lluís Rosselló Aubach como investigador principal en el Hospital Universitari Santa María de Lleida, y consideró que:

- Se cumplen los requisitos necesarios de idoneidad del protocolo en relación a los objetivos del estudio y que están justificados los riesgos y molestias previsibles para los sujetos participantes.
- La capacidad del investigador y los medios de que dispone son apropiados para llevar a cabo el estudio.
- Es adecuado el procedimiento para obtener el consentimiento informado de los sujetos que participan en el estudio.

Lleida, 29 de mayo de 2019

Joan Antoni Schoenenberger
Presidente

ANNEX9: COMITÉ ÈTIC

IDIAP
Jordi Gol

INFORME DEL COMITÉ ÉTICO DE INVESTIGACIÓN CLÍNICA

Rosa Morros Pedrós, Presidenta del Comité Ético de Investigación Clínica del l'IDIAP Jordi Gol i Gurina.

CERTIFICA:

Que este Comité en su reunión del día 28 de octubre, ha evaluado la modificación al protocolo del proyecto **(20/040-P)** titulado: ***Homes i dones amb la síndrome de fibromiàlgia: anàlisi comparatiu des d'una perspectiva de gènere*** presentado por la Investigadora **Pilar Montesó Curto**.

Y después de su evaluación la decisión del CEI ha sido emitir un dictamen FAVORABLE.

Barcelona, a 28 de octubre de 2020.

Rosa Morros

Presidenta del CEIC del IDIAP Jordi Gol i Gurina

ANNEX 10: AUTORITZACIÓ PER A L’ENREGISTRAMENT DE VEU

Nom: ____________________

Cognoms: ____________________________

DNI / NIE: ____________________________

Autoritzo l'equip investigador de el projecte “Homes i dones amb la síndrome de fibromiàlgia: un estudi des d’una perspectiva de gènere” perquè pugui gravar la meva veu.

Aquesta autorització suposa el seu compromís de no cedir l'enregistrament a cap altra empresa, a no utilitzar-la amb cap finalitat comercial i a utilitzar-la estrictament per a aquest estudi.

Signatura:

Lloc i data

FUTURES LÍNIES D'INVESTIGACIÓ

Aquesta tesi està emmarcada principalment dins del projecte MECENES-2018 de la Fundació URV titulat "La fibromiàlgia en hombres, la gran desconocida" i "Homes i dones amb la síndrome de fibromiàlgia: anàlisi comparatiu des de una perspectiva de gènere" de l'any 2020 realitzat a Lleida i Terres de l'Ebre (**ANNEX9**). Per dur a terme el primer projecte, aquest es va dividir en dos: "Percepción y experiencia del síndrome de Fibromialgia en hombres: un estudio comparativo entre España y USA" de l'any 2019 efectuat a Lleida i USA (**ANNEX7**); i "Percepción de la experiencia de enfermedad en hombres con fibromialgia: un estudio piloto cualitativo" de l'any 2019 realitzat a Lleida (**ANNEX8**).

A continuació, presentem 3 futurs articles, dos que deriven del primer projecte i l'últim article derivat del segon. El primer estudia l'activitat física als homes amb fibromiàlgia d'Espanya i els EUA. El segon analitza l'experiència emocional als homes amb fibromiàlgia d'Espanya i els EUA. Per últim, el tercer analitza les diferencies en símptomes i dificultats que experimenten els homes i les dones amb fibromiàlgia al nostre país.

1. Pilar Montesó-Curto, Loren Toussaint, Angela Kueny, Ilga Ruschak, Shannon Lunn, Lluís Rosselló, Carme Campoy, Stephanie Clark, Connie Luedtke, Alessandra Queiroga Gonçalves, Carina Aguilar Martín, Ann Vincent, and Arya B. Mohabbat. Physical activity and exercise in Spanish and United States men with Fibromyalgia: A Qualitative Cross-Cultural Study. International Journal of Environmental Research and Public Health. Submitted 24-February-2023. **Under Review.**

Aquest estudi pretén analitzar l'experiència de l'exercici en homes amb la síndrome de fibromiàlgia dels EUA i Espanya. Es va fer un estudi qualitatiu transcultural en unitats clíniques de fibromiàlgia d'Espanya i els Estats Units. Un total de 17 participants (10 homes d'Espanya i 7 homes dels EUA) van ser reclutats mitjançant un mostreig intencional.

2. Pilar Montesó-Curto, Loren Toussaint, Angela Kueny, Ilga Ruschak, Shannon Lunn, Lluís Rosselló, Carme Campoy, Stephanie Clark, Connie Luedtke, Alessandra Queiroga, Carina Aguilar, Arya B. Mohabbat, and Ann Vincent. Emotional Experiences of Men with Fibromyalgia Syndrome: A Cross-Cultural Qualitative Study. Journal of Psychiatric and Mental Health Nursing. Submitted 05-May-2023. **Awaiting AE Assignment.**

   El propòsit d'aquest estudi va ser explorar l'experiència emocional dels homes amb síndrome de fibromiàlgia i identificar les eines que utilitzen per a la gestió de les emocions. Material i mètodes: Aquest estudi qualitatiu transcultural es va dur a terme als EUA i Espanya, adoptant una investigació d'anàlisi temàtica inductiva amb una mostra de propòsit. Es van realitzar entrevistes individuals i grups focals a un total de 17 homes afectats (10 d'Espanya i 7 dels EUA).

3. Pilar Montesó-Curto, Ilga Ruschak, Loren Toussaint, Angela Kueny, Lluís Rosselló i Carina Aguilar Martín.

   Síndrome de Fibromiàlgia: Anàlisi Comparatiu des d'una Perspectiva de Gènere" (2023?) **En procés d'anàlisi de dades**

Aquest article analitza les diferències en els símptomes i dificultats que experimenten els homes i les dones amb la fibromiàlgia. És l'estudi on hem obtingut la major mostra de participants fins la data, 50 homes i 50 dones. A causa de la pandèmia vam modificar la recollida de dades de presencial a qüestionari virtual de creació pròpia. Aquells pacients que no podien complimentar-lo per raons d'edat o desconeixement tecnològic se'ls va telefonar individualment.

L'estudi tenia com a objectius 1) analitzar les variables sociodemogràfiques de les persones de l'estudi, 2) explorar la percepció (signes i símptomes, emocions, dificultats...) que tenen els participants en relació a la patologia, 3) avaluar les característiques clíniques dels homes i les dones (dolor, fatiga, ansietat, depressió...), i finalment, 4) conèixer l'impacte que ha comportat la pandèmia del COVID-19 a la seva vida diària.

DIFUSIÓ DE LA RECERCA

- **Pòster:** *Fibromiàlgia en homes: La web com a recurs per a la difusió d'informació i crowdfunding.*. Ruschak, I; Montesó-Curto, P; Roselló, L; Kueny, A; Toussaint, L; Lunn, S; Mateu, M; Panisello, M; Aguilar, C; Queiroga, A; Campoy, C. Jornada de Comunicació i Salut. Universitat Rovira i Virgili, 3 de maig de 2019.

- **Pòster:** *Men's Experiences with Fibromyalgia: A Comparison Across Cultures.* Lunn, S; Kueny, A; Toussaint, L; Montesó-Curto, P; Ruschak, I; Arya, M. Lutter College, USA, 2019.

- **Capítol de llibre:** *Síndromes de Sensibilización Central y Actividad Fisica.* Rosselló, L; Montesó-Curto, P. *"Percepción del ejercicio físico en hombres que padecen fibromialgia".* Publicacions URV, Tarragona, 2019.

- **Ponència:** *Fibromiàlgia i gènere: Què en sabem fins ara?* Ruschak, I; Montesó-Curto, P. Biblioteca Marcel·lí Domingo, Tortosa, 2019.

- **Ponència:** *Homes i dones amb la síndrome de fibromiàlgia: Anàlisi comparatiu des d'una perspectiva de gènere*. Ruschak, I; Montesó-Curto, P; Fernández, J; Aguilar, C; Queiroga, A. Premis Innovació i Recerca 2020. Col·legi Oficial d'Infermeria de Tarragona, 17 de desembre de 2020.

- **Ponència:** *Homes i dones amb la síndrome de fibromiàlgia: Anàlisi comparatiu des d'una perspectiva de gènere*. Ruschak, I. Jornades Doctorals: Webinar "Investigant en Infermeria i Salut". Universitat Rovira i Virgili, 15 d'abril de 2021.

- **Ponència:** *Simptomatologia de la Síndrome de Fibromiàlgia en Homes: Estudi de Mètode Mixt.* Ruschak, I; Montesó-Curto, P; Fernández, J; Aguilar, C; Toussaint, L. 38 Jornades Mèdiques i de la Salut de les Terres de l’Ebre: Salut Mental i Pandèmia, 24 i 25 de febrer de 2022.