

## Search hedge (PubMed)

(((**"Risk Factors"**[majr] OR **"risk factor"**[ti] OR **"risk factors"**[ti] OR **"Risk Assessment"**[majr] OR **"risk assessment"**[ti] OR **"Risk stratification"**[ti] OR **"prediction model"**[ti] OR **"prediction models"**[ti] OR **"predictive"**[ti] OR **"predicts"**[ti] OR **"predictor"**[ti] OR **"predictors"**[ti] OR **"predicted"**[ti] OR **"prediction"**[ti]) AND ("Medically Unexplained Symptoms"[majr] OR "medically unexplained symptom"[ti] OR "medically unexplained symptoms"[ti] OR "medically unexplained physical symptom"[ti] OR "medically unexplained physical symptoms"[ti] OR "Medically Unexplained Syndrome"[ti] OR "bodily distress syndrome"[ti] OR "wide spread pain"[ti] OR "widespread pain"[ti] OR "widespread pain"[ti] OR "widespread body pain"[ti] OR "musculoskeletal pain"[ti] OR "multisite pain"[ti] OR "functional somatic syndrome"[ti] OR "functional somatic syndromes"[ti] OR "functional syndrome"[ti] OR "functional somatic symptom"[ti] OR "functional somatic symptoms"[ti] OR "functional disorders"[ti] OR "central sensitivity syndrome"[ti] OR "central sensitivity syndromes"[ti] OR "central sensitization"[ti] OR "Central Nervous System Sensitization"[majr] OR "somatisation" OR "central sensitisation"[ti] OR "Myofascial Pain Syndromes"[majr] OR "myofascial pain syndrome"[ti] OR "chronic vulvar pain"[ti] OR "Vulvodynia"[majr] OR "vulvodynia"[ti] OR "Tension-type Headache"[majr] OR "tension-type headache"[ti] OR "tension headache"[ti] OR "stress headache"[ti] OR "idiopathic headache"[ti] OR "psychogenic headache"[ti] OR "Fibromyalgia"[majr] OR "fibromyalgia"[ti] OR "Fatigue Syndrome, Chronic"[majr] OR "chronic fatigue syndrome"[ti] OR "myalgic encephalomyelitis"[ti] OR "Irritable Bowel Syndrome"[majr] OR "irritable bowel syndrome"[ti] OR "Cystitis, Interstitial"[majr] OR "interstitial cystitis"[ti] OR "Restless Legs Syndrome"[majr] OR "restless legs syndrome"[ti] OR "restless-legs syndromes"[ti] OR "restless legs syndrome"[ti] OR "restless-legs syndromes"[ti] OR "psychosomatic pain"[ti] OR "psychosomatic syndrome"[ti] OR "psychosomatic syndromes"[ti] OR "Somatoform Disorders"[majr] OR "somatoform disorder"[ti] OR "somatoform disorders"[ti] OR "somatoform pain disorder"[ti] OR "somatoform pain disorders"[ti] OR "somatization"[ti] OR "somatisation"[ti] OR "Back Pain"[majr] OR "back pain"[ti] OR "bladder pain syndrome"[ti] OR "Tinnitus"[majr] OR "tinnitus"[ti] OR "Vertigo"[majr] OR "vertigo"[ti] OR "vertigos"[ti] OR "Chronic primary pain"[ti] OR "complex regional pain syndrome 1"[ti] OR "complex regional pain syndrome i"[ti] OR "complex regional pain syndrome type 1"[ti] OR "complex regional pain syndrome type i"[ti] OR "pain disorder"[ti] OR "pain disorders"[ti] OR "Whiplash Injuries"[majr] OR "whiplash"[ti] OR "chronic pelvic pain"[ti] OR "chronic neck pain"[ti] OR "nonspecific chest pain"[ti] OR "non-specific chest pain"[ti] OR "non-cardiac chest pain"[ti] OR "chronic complainer"[ti] OR "Neurasthenia"[ti] OR "Neurasthenia"[majr] OR "psychophysiological disorder"[ti] OR "psychophysiological disorders"[ti] OR "psychophysiologic disorders"[majr])) OR ((**"Cohort Studies"**[Mesh] OR **"cohort study"**[tw] OR **"Follow-Up Studies"**[mesh] OR **"Longitudinal Studies"**[mesh] OR **"Prospective Studies"**[mesh] OR **"Retrospective Studies"**[mesh] OR **"Follow-Up Study"**[tw] OR **"Longitudinal Study"**[tw] OR **"Prospective Study"**[tw] OR **"Retrospective Study"**[tw]) AND (**"Risk Factors"**[mesh] OR **"risk factor"**[tw] OR **"risk factors"**[tw] OR **"Risk Assessment"**[mesh] OR **"risk assessment"**[tw] OR **"Risk stratification"**[tw] OR **"prediction model"**[tw] OR **"prediction models"**[tw] OR **"predictive"**[tw] OR **"predicts"**[tw] OR **"predictor"**[tw] OR **"predictors"**[tw] OR **"predicted"**[tw] OR **"prediction"**[tw]) AND ("Medically Unexplained Symptoms"[majr] OR "medically unexplained symptom"[ti] OR "medically unexplained symptoms"[ti] OR "medically unexplained physical 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Table S1: Assessment

Author, year published	Representativeness of exposed cohort	Non-exposed drawn from same	Random/ consecutive selection of subjects	Risk factor assessment	Outcome not present at baseline	Adjusted for age+sex	Adjusted for most important confounders	Outcome assessment	Length follow-up (months)	Adequacy of follow-up	Assessment risk of bias (NOS)
Aggarwal et al., 2010	a	a	yes	b	yes	yes	no	c	24	b	poor quality
Ali et al., 2018	a	a	yes	b	yes	yes	yes	b	60	b	good quality
Alli et al., 2021	a	a	yes	c	yes	yes	no	b	252	c	good quality
Andersen et al., 2017	a	a	yes	c	yes	yes	no	b	144	c	good quality
Bergman et al., 2002	a	a	yes	c	yes	yes	yes	b	35	c	poor quality
Bergman et al., 2004	a	a	yes	b	yes	yes	no	b	36	b	good quality
Bernhardt et al., 2011	a	a	yes	b	yes	yes	yes	a	62	a	poor quality
Bondesson et al., 2018	a	a	yes	a	yes	yes	yes	b	120	a	good quality
Bonvanie et al., 2015	b	a	yes	b	no	yes	no	b	96	c	poor quality
Bonvanie et al., 2017	c	a	yes	b	no	no	yes	b	96	a	fair quality
Brown et al., 2018	a	a	yes	c	no	yes	yes	c	120	a	poor quality
Brummond et al., 2015	a	a	yes	a	yes	yes	no	b	456	c	good quality
Carrol et al., 2004	a	a	yes	b	no	no	yes	b	12	c	poor quality
Carvalho et al., 2020	a	a	yes	c	yes	yes	yes	c	86	c	poor quality
Chan et al., 2017	b	a	yes	a	yes	yes	yes	a	156	a	good quality
Chandan et al., 2021	c	a	yes	a	yes	yes	yes	b	38	a	good quality
Chang et al., 2015	a	a	yes	a	yes	yes	yes	a	96	a	good quality
Chen CS et al., 2018	b	a	yes	a	yes	yes	yes	b	84	a	good quality
Chen JH et al., 2018	a	a	yes	a	yes	yes	yes	a	144	a	good quality
Chen ZJ et al., 2016	a	a	yes	a	yes	yes	yes	a	156	a	good quality
Chu et al., 2015	b	a	yes	a	yes	yes	yes	b	76	a	good quality
Chung et al., 2014	a	a	yes	a	yes	yes	yes	a	36	a	good quality
Clark et al., 2011	b	a	yes	c	no	yes	yes	c	420	c	poor quality
Collin et al., 2017	d	a	yes	a	yes	no	no	b	144	a	poor quality
Creed, 2022	d	a	yes	c	no	yes	yes	c	36	b	fair quality
Cremon et al., 2014	a	a	yes	b	yes	yes	yes	b	192	b	good quality
Currie & Wang, 2005	a	a	yes	b	yes	yes	yes	c	24	b	poor quality
Dai et al., 2022	a	a	yes	a	yes	yes	yes	b	104	a	good quality
Davies et al., 2009	a	a	yes	b	yes	yes	yes	b	15	c	poor quality
Donnachie et al., 2018	a	a	yes	a	yes	no	no	b	60	a	poor quality
Duncan et al., 2019	b	a	yes	c	yes	no	yes	b	108	d	fair quality
Elliot et al., 2002	a	a	yes	c	yes	no	yes	b	49	b	good quality
Emir et al., 2015	a	a	yes	a	yes	yes	yes	b	12	a	good quality
Ford et al., 2008	b	a	yes	a	yes	no	no	b	120	c	poor quality
Gale et al., 2012	b	a	yes	b	no	no	yes	b	408	c	fair quality
Goodwin et al., 2011	b	a	yes	b	no	yes	yes	c	372	c	poor quality
Goodwin et al., 2013	b	a	yes	b	no	yes	no	c	420	c	poor quality
Gupta et al., 2007	a	a	yes	b	yes	no	no	b	15	c	poor quality
Hagen et al., 2012	a	a	yes	c	yes	yes	yes	c	132	c	poor quality
Hamilton et al., 2009	b	a	yes	a	yes	no	no	a	36	a	poor quality
Hanevik et al., 2014	b	a	yes	a	yes	yes	yes	b	72	c	good quality
Harvey et al., 2008a	b	a	yes	b	no	yes	yes	b	636	c	fair quality
Harvey et al., 2008b	b	a	yes	b	no	yes	no	b	480	c	fair quality
Heuch et al., 2013	a	a	yes	a	no	no	yes	c	132	b	good quality
Heuch et al., 2014a	a	a	yes	a	no	no	yes	c	132	b	good quality
Heuch et al., 2014b	a	a	yes	a	no	no	yes	c	132	c	poor quality
Heuch et al., 2015a	a	a	yes	a	no	no	yes	c	132	b	good quality
Heuch et al., 2015b	a	a	yes	a	no	no	yes	c	132	c	poor quality
Heuch et al., 2016	a	a	yes	a	no	no	yes	c	132	c	poor quality
Heuch et al., 2017	a	a	yes	a	no	yes	yes	c	132	a	good quality
Heuch et al., 2019	a	a	yes	a	no	yes	yes	c	132	c	poor quality
Heuch et al., 2022	b	a	yes	c	yes	yes	yes	c	132	a	fair quality
Hocking et al., 2009	b	a	yes	a	no	no	yes	b	540	c	fair quality
Holiday et al., 2009	a	a	yes	a	yes	no	no	b	48	d	poor quality
Holiday et al., 2010	a	a	yes	a	yes	no	no	b	48	d	poor quality
Hou et al., 2020	a	a	yes	a	yes	yes	yes	c	90	d	poor quality
Howell et al., 2004	b	a	yes	b	no	no	no	b	312	b	poor quality
Hsu et al., 2015	b	a	yes	a	yes	yes	yes	a	120	a	good quality
Hsu et al., 2019	a	a	yes	a	yes	yes	yes	a	120	a	good quality
Huerta et al., 2002	d	a	yes	a	yes	yes	yes	b	48	a	good quality
Hunskar et al., 2012	b	a	yes	c	no	yes	yes	b	36	a	poor quality
Iversen et al., 2017	b	a	yes	a	no	yes	yes	c	312	c	poor quality
Jones et al., 2006	b	a	yes	a	yes	no	yes	b	24	a	poor quality
Jones et al., 2007	b	a	yes	c	no	yes	yes	b	456	b	poor quality
Jones et al., 2009	b	a	yes	c	no	yes	yes	b	456	b	poor quality
Jones et al., 2011	a	a	yes	b	yes	yes	yes	b	48	c	poor quality
Kang et al., 2013	b	a	yes	a	yes	yes	yes	b	36	a	good quality
Kim et al., 2019	b	a	yes	a	yes	yes	yes	b	132	a	good quality
Kim et al., 2020a	b	a	yes	a	yes	yes	yes	a	150	a	good quality
Kim et al., 2020b	b	a	yes	a	yes	yes	yes	a	150	a	good quality

Kingma et al., 2013	b	a	yes	a	no	yes	yes	c	372	c	poor quality
Klooker et al., 2009	b	a	yes	a	no	no	no	a	696	c	poor quality
Koloski et al., 2012	a	a	yes	b	yes	yes	no	b	144	b	good quality
Koloski et al., 2015	a	a	yes	c	yes	yes	no	b	144	b	good quality
Koloski et al., 2016	a	a	yes	b	yes	no	no	b	12	c	poor quality
Kopec et al., 2004	a	a	yes	c	yes	no	yes	c	24	c	poor quality
Kopec et al., 2005	a	a	yes	c	yes	no	yes	c	48	b	poor quality
Kowalczyk et al., 2014	a	a	yes	a	yes	yes	yes	b	132	a	good quality
Larrosa Pardo et al., 2019	a	a	yes	a	yes	yes	yes	b	120	a	good quality
Lau et al., 2014	a	a	yes	a	yes	yes	yes	c	60	b	poor quality
Lau et al., 2015	b	a	yes	a	yes	yes	yes	b	24	a	good quality
Lei et al., 2016	b	a	yes	a	yes	no	yes	a	36	b	good quality
Liang et al., 2020	b	a	yes	a	yes	yes	yes	b	168	a	good quality
Lin WC et al., 2017	b	a	yes	a	yes	yes	yes	a	120	a	good quality
Lin WT et al., 2017	a	a	yes	a	yes	yes	yes	a	120	a	good quality
Litleskare et al., 2015	b	a	yes	c	no	yes	no	b	35	c	poor quality
Litleskare et al., 2018	b	a	yes	a	no	yes	no	b	120	c	fair quality
Littlejohn et al., 2012	b	a	yes	a	no	yes	yes	b	540	b	fair quality
Liu et al., 2017	b	a	yes	a	yes	no	no	a	132	a	poor quality
Macfarlane et al., 2009	b	a	yes	b	no	no	yes	a	540	c	fair quality
Marrie et al., 2009	d	a	yes	a	yes	no	no	b	240	a	poor quality
Marshall et al., 2006	a	a	yes	a	no	no	no	b	24	a	poor quality
Marshall et al., 2010	a	a	yes	a	no	no	no	b	96	b	poor quality
Masters et al., 2015	b	a	yes	a	yes	no	no	a	12	a	poor quality
McBeth et al., 2001	a	a	yes	b	yes	yes	no	b	12	b	good quality
McBeth et al., 2003	a	a	yes	c	yes	yes	no	b	36	b	good quality
McBeth et al., 2019	a	a	yes	b	yes	yes	yes	b	12	b	good quality
McCabe et al., 2016	b	a	yes	a	yes	no	yes	b	51	c	poor quality
Monden at al., 2020	a	a	yes	b	yes	yes	yes	c	29	b	good quality
Mork et al., 2010	b	a	yes	a	yes	no	yes	c	132	c	poor quality
Mork et al., 2012	b	a	yes	c	yes	no	yes	c	132	c	poor quality
Mork et al., 2013	a	a	yes	c	yes	yes	yes	c	132	c	poor quality
Mork et al., 2014	a	a	yes	c	yes	no	yes	c	132	c	poor quality
Mundal et al., 2014	a	a	yes	c	no	yes	yes	b	132	c	fair quality
Muthuri et al., 2018	b	a	yes	c	no	yes	yes	c	816	c	poor quality
Myrtveit et al., 2013	a	a	yes	c	yes	no	no	c	132	d	poor quality
Nakamura et al., 2014	a	a	yes	c	yes	yes	yes	c	12	d	poor quality
Nicholl et al., 2010	b	a	yes	a	no	no	no	b	300	a	poor quality
Nicholl et al., 2011	b	a	yes	a	no	no	no	b	300	a	poor quality
Nilsen et al., 2011	a	a	yes	b	yes	no	yes	b	132	c	good quality
Nitter et al., 2012	b	a	yes	b	yes	no	no	b	204	c	poor quality
Odegard et al., 2011	a	a	yes	c	yes	yes	yes	b	132	c	good quality
Olen et al., 2018	b	a	yes	a	yes	no	yes	b	216	a	good quality
Pan et al., 2016	a	a	yes	a	yes	yes	yes	b	120	a	good quality
Pang et al., 2010	b	a	yes	c	no	no	no	b	456	d	poor quality
Persson et al., 2015	b	a	yes	a	no	no	yes	b	72	c	fair quality
Picavet et al., 2002	a	a	yes	b	yes	no	no	b	6	b	poor quality
Pico-Espinosa et al., 2017	a	a	yes	c	yes	no	yes	c	48	c	poor quality
Puroila et al., 2015	b	a	yes	c	yes	no	yes	c	204	b	poor quality
Raphael et al., 2002	b	a	yes	a	yes	no	yes	b	5	c	poor quality
Raslau et al., 2016	b	a	yes	a	yes	no	no	b	576	d	poor quality
Reed et al., 2013	c	a	yes	c	yes	no	no	c	NA	b	poor quality
Reed et al., 2014	c	a	yes	b	yes	no	yes	c	72	b	good quality
Rodriguez & Ruigomez, 1999	a	a	yes	a	yes	yes	yes	a	12	a	good quality
Ruigomez et al., 2003	c	a	yes	a	yes	yes	yes	b	72	b	good quality
Ruigomez et al., 2007	b	a	yes	a	yes	yes	yes	b	120	a	good quality
Ruigomez et al., 2009	b	a	yes	a	yes	yes	yes	b	12	a	good quality
Shen et al., 2016	a	a	yes	b	yes	yes	yes	b	120	a	good quality
Shih et al., 2017	a	a	yes	b	yes	yes	yes	b	120	a	good quality
Shih et al., 2018	a	a	yes	a	yes	yes	yes	b	168	a	good quality
Sivertsen et al., 2014	a	a	yes	a	yes	yes	yes	c	132	c	good quality
Skarpsno et al., 2019a	a	a	yes	c	yes	yes	yes	b	96	c	good quality
Skarpsno et al., 2019b	b	a	yes	c	yes	no	yes	c	132	b	fair quality
Skarpsno et al., 2020	a	a	yes	a	yes	yes	yes	c	132	c	poor quality
Smith et al., 2004	a	a	yes	b	yes	no	yes	b	48	b	good quality
Talley et al., 2001	b	a	yes	b	no	no	no	c	96	b	good quality
Tsai et al., 2014	a	a	yes	a	yes	yes	yes	a	48	a	good quality
Tsai et al., 2018	a	a	yes	a	yes	yes	yes	a	144	a	good quality
Tsai et al., 2019	a	a	yes	a	yes	yes	yes	a	96	a	good quality
Uhlig et al., 2018	a	a	yes	b	yes	yes	yes	b	132	c	good quality
Vandenkerkhof et al., 2011	a	a	yes	c	no	no	no	c	144	d	poor quality
Varinen et al., 2019	b	a	yes	c	yes	yes	yes	c	120	c	poor quality
Viner et al., 2004	b	a	yes	b	yes	yes	yes	c	240	b	good quality
Waehrens et al., 2018	a	a	yes	a	yes	yes	yes	b	240	a	good quality
Wang et al., 2017	a	a	yes	a	yes	no	yes	b	144	a	good quality
Wensaas et al., 2011	b	a	yes	a	no	yes	yes	c	36	c	poor quality
Wensaas et al., 2016	b	a	yes	c	no	yes	yes	c	36	c	poor quality
Wu CC et al., 2018	c	a	yes	a	yes	yes	yes	b	72	a	good quality
Wu et al., 2015	b	a	yes	a	yes	no	yes	b	60	a	good quality
Yang CY et al., 2020	a	a	yes	a	yes	yes	yes	b	120	a	good quality

**Table S2: Description of studies included in systematic data synthesis**

Author, year published	Study type (cohort) Country	sample size, n	Female gender, % Age at outcome, range or mean (s.d.)	Outcome (measurement type, definition)	Length of follow-up (years)	Measured factors	Investigated domains
<b>Aggarwal et al., 2010</b>	Prospective study (North Cheshire)  UK	1321	56.2 18-75	Chronic oro-facial pain (Self-report, $\geq 3$ months)	2.0	<b>Age+</b> , <b>gender+</b> , <b>teeth grinding+</b> , missing teeth, facial trauma, feeling teeth did not fit together, <b>anxiety+</b> , <b>depression+</b> , <b>health anxiety+</b> , sleep disturbance, <b>somatic symptoms+</b> , adverse life events, other unexplained symptoms ( <b>CWP+</b> , <b>IBS+</b> , chronic fatigue)	Biological, psychological, interpersonal, contextual
<b>Aili et al., 2018</b>	Prospective study (EPIPAIN study)  Sweden	1249	52.0 49 (15) <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	5.0, 18.0	<b>Gender+</b> (female: only 18-year FU), <b>sleep problems+</b> (initiating sleep, maintaining sleep, early awakening, non-restorative sleep), <b>fatigue+</b> , <b>number of pain regions+</b> , <b>mental health-</b> , <b>socio-economy+</b> (only 5-year FU manual vs. high).	Biological, psychological, contextual
<b>Alli et al., 2021</b>	Prospective study  Sweden	1858	55.3 46.3 (14.6) <sup>b</sup>	Chronic regional pain/ chronic widespread pain ( Self-report, ACR criteria for fibromyalgia)	21.0	<b>Age+/-</b> , gender, <b>sleep+</b> , care seeking, alcohol, smoking, <b>immigrant+</b> , exercise, social support, SES, <b>physical functioning-</b> , <b>vitality-</b> , mental health.	Biological, psychological, contextual, health behavior
<b>Andersen et al., 2017</b>	Prospective study (Tromsø study)  Norway	4496	46.6 43.2 (11.1) <sup>b</sup>	Musculoskeletal complaints (Self-report, ACR criteria for fibromyalgia)	12.0	<b>Age+</b> , gender, <b>marital status+</b> , <b>smoking+</b> , <b>self-perceived general health+</b> , <b>mental complaints+</b> , <b>education level-</b> , <b>body mass index+</b> , <b>physical activity-</b>	Biological, psychological, contextual, health behavior
<b>Bondesson et al., 2018</b>	EMR cohort  Sweden	761180	51.0 49 (18) <sup>b</sup>	Fibromyalgia (ICD-10: M797)	12.0	<b>Mental illness</b>	Psychological
<b>Bergman et al., 2002<sup>c</sup></b>	Prospective study  Sweden	2425	52.7 20-74	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	3.0	<b>Age+</b> , gender, <b>education-</b> , smoking, <b>alcohol+</b> , <b>personal support-</b> , <b>family history of CP+</b> , <b>regions with pain at baseline+</b> , <b>SES+</b> , <b>immigrant status+</b> , housing area	Biological, interpersonal, contextual, health behavior
<b>Bergman et al., 2004<sup>c</sup></b>	Prospective study  Sweden	1852	52.7 20-64	Chronic widespread pain & chronic regional pain (Self-report, ACR criteria for fibromyalgia)	3.0	<b>SF-36 (physical functioning+</b> , <b>role physical+</b> , <b>role emotional+</b> (only for regional pain), <b>bodily pain+</b> , <b>general health+</b> , <b>vitality+</b> , <b>social functioning+</b> , <b>mental health+</b>	Biological, psychological, interpersonal
<b>Bernhardt, et al., 2011</b>	Prospective study (Study of Health)  Germany	3134	non-cases: 52.3 - cases: 45.8  non-cases: 48.9 (15.4) - cases: 57.1 (12.6)	Tinnitus (Diagnosis by ENT specialist)	5.2	<b>Palpation pain in the temporomandibular joint (TMJ)+</b> , <b>age+</b> , gender, <b>education-</b> , muscle tenderness on palpation+, reported TMJ pain, headache+, depression.	Biological, psychological, contextual
<b>Bonvanie et al., 2015<sup>d</sup></b>	Prospective study (TRAILS)  Netherlands	2230	50.8 19.0 (0.6)	Functional Somatic Symptoms (Somatic Complaints subscale of the Adult Self-Report ASR)	8.0	<b>Perfectionism+</b>	Health behavior
<b>Bonvanie et al., 2017<sup>d</sup></b>	Prospective study (TRAILS)  Netherlands	2230	55.0 19.0 (0.6)	Functional Somatic Symptoms (Somatic Complaints subscale of	8.0	Life events ( <b>non-illness-related+</b> , illness related, <b>severty+</b> ).	Interpersonal

				the Adult Self-Report ASR)			
<b>Brown et al., 2018</b>	Prospective study (MIDUS)  USA	1908	53.9  54 (30-84)	Chronic pain (self-report, ≥ few months & BPI)	10.0	<b>Discrimination+</b> , personality(In(K6), neuroticism, <b>conscientiousness+</b> , agreeableness), gender-(female), <b>age+</b> , race ( <b>black+</b> , other), education, <b>marital status-</b> , <b>income-</b> , religion, <b>past chronic pain+</b> , ADL, height, disabled, health insurance, <b>employed-</b> .	Biological, interpersonal, contextual
<b>Brummond et al., 2015</b>	Prospective study (Olmsted County population)  USA	4893	53.0  58 (15)	IBS (Self-report, Rome III)	2.0-95.0	<b>Birth cohort 1913-1922+</b> , Birth cohort 1923-1932, Birth cohort 1933-1942, Birth cohort 1943-1952, Birth cohort 1953-1962, Birth cohort 1973-1983	Contextual
<b>Carroll et al., 2004</b>	Prospective study (HIRF)  Canada	218	49.4  44.5 (13.5) <sup>b</sup>	Neck and low back pain (Chronic Pain Questionnaire, ≥ 6 months)	0.5, 1.0	<b>Depression+</b> .	Psychological
<b>Carvalho et al., 2020</b>	EMR cohort (NHIRD)  Taiwan	16875	52  61.6 (7.0)	Musculoskeletal pain (Self report, >3 months)	7.2	<b>Diabetes+</b> .	Biological
<b>Chan et al., 2017</b>	EMR cohort (NHIRD/LHID2005)  Taiwan	13358	88.4  NA	BPPV (ICD-9-CM: 386.11, by neurologist / otolaryngologist)	13.0	Age, gender, <b>urbanization+</b> , <b>income-</b> , <b>osteoporosis+</b> , <b>cardiovascular disease+</b> , <b>hypertension+</b> , diabetes, heart failure, chronic obstructive pulmonary disease, asthma, coronary artery disease, cerebrovascular disease, and migraine.	Biological, contextual
<b>Chandan et al., 2021</b>	EMR cohort (THIN cohort)  UK	92835	100  36.9 (12.5) <sup>b</sup>	Fibromyalgia & CFS (N239, N248 & F286)	3.2	<b>Intimate partner violence+</b> .	Interpersonal
<b>Chang et al., 2015</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	85710	60.7  39.4 (16.5) <sup>b</sup>	Fibromyalgia (ICD-9-CM: 729.1)	8.0	<b>Depression+</b> , <b>migraine+</b> , <b>low back pain+</b> , asthma+, <b>allergic rhinitis+</b> , <b>atopic dermatitis+</b> , <b>hypertension+</b> , <b>diabetes mellitus+</b> , <b>dyslipidemia+</b> .	Biological, psychological
<b>Chen et al., 2016</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	22795	58.3  43 <sup>†</sup>	BPPV (ICD-9-CM: 386.11, by neurologist)	13.0	<b>Age+</b> , <b>gender+</b> , <b>hypertension+</b> , <b>diabetes mellitus+</b> , <b>chronic liver disease+</b> , autoimmune disease, <b>congestive heart failure+</b> , <b>anxiety disorders+</b> , <b>hyperlipidemia+</b> , <b>nephropathy+</b> , <b>cerebrovascular disease+</b> , <b>COPD+</b> .	Biological, psychological, contextual
<b>Chen CS et al., 2018</b>	EMR cohort (NHIRD)  Taiwan	4420	74.0  Non exposed: 55.7 (16.3) Exposed: 55.8 (16.2)	CFS (ICD-9-CM: 780.71)	7.0	<b>Dry eye syndrome+</b> .	Biological
<b>Chen JH et al., 2018</b>	EMR cohort (NHIRD)  Taiwan	22550	51.6  cases: 47.0 (16.5) – n-cases: 46.8 (16.6) <b>b</b>	Fibromyalgia (ICD-9-CM: 729.1)	12.0	<b>Inflammatory bowel disease+</b> .	Biological
<b>Chu et al., 2015</b>	EMR cohort (NHIRD)  Taiwan	16532	72  < 40 (53.3%) - >40 (46.7%) <sup>b</sup>	BPPV (ICD-9-CM: 386.11)	6.3	<b>Migraine+</b> .	Biological
<b>Chung et al., 2014</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	32340	39.0  47.1 (15.7) <sup>b</sup>	Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) (ICD-9-CM 327.23, 780.51, 780.53, or 780.57, at least 2x)	3.0	<b>Obstructive sleep apnea+</b> , gender, age, income, geographic region, <b>diabetes+</b> , <b>hypertension+</b> , <b>coronary heart disease+</b> , <b>obesity+</b> , <b>hyperlipidemia+</b> , <b>chronic pelvic pain+</b> , <b>IBS+</b> , <b>FM+</b> ,	Biological, contextual, health behavior

						<b>CFS+, depression+, panic disorder+, migraines+, sicca syndrome+, allergies+, endometriosis+, asthma+, alcohol abuse, tobacco use disorder+.</b>	
<b>Clark et al., 2011</b>	Birth cohort (British Birth Cohort)  UK	11419	both  42	CFS (self-report)	9.0, 19.0, 26.0, 31.0, 35.0	Gender Childhood: illness in household, in care, divorce parents, neglect, maternal absence, paternal absence, in care, divorce, <b>paternal physical abuse+, paternal sexual abuse+, many colds+</b> , school absence, <b>gastrointestinal symptoms+, chronic illness+, cumulative childhood adversity+.</b> Adulthood: <b>psychopathology+.</b>	Biological, psychological, interpersonal, contextual
<b>Collin et al., 2017</b>	EMR cohort (Clinical Practice Research Datalink)  UK	42316	N/A	CFS & Fibromyalgia (Self-report)	12	Gender, age	Contextual
<b>Creed, 2022</b>	Prospective cohort (Lifelines)  Netherlands	150714	N/A	Fibromyalgia (Self-report)	3	<b>Female sex+, years of education+, low income, work&gt;32h per week+, unable to work through illness+, BMI, &lt;4 allergies+, &gt;2 times per week alcohol+, no of analgesics+, chronic cystitis+, asthma/any inhaler+, osteoarthritis+, rheumatoid arthritis+, RSI+, IBS+, chronic inflamm. of throat/nasal cavity+, migraine+, no of psychiatric disorders+, life events+, no of healthcare contact in 5 yrs+, somatic symptom score+, sleep+.</b>	Biological, psychological, contextual, health behavior
<b>Cremon et al., 2014</b>	Prospective study (Salmonella outbreak 1994)  Italy	331	65.4  Non-exposed: 31.1 (16.3) – exposed: 33.6 (18)	IBS (Self-report, Rome III)	16.0	<b>Salmonella infection+</b> , age, <b>gender+</b> (female), <b>functional dyspepsia+, PCS-12+, MCS-12+, HADS anxiety+, HADS depression.</b>	Biological, psychological, contextual
<b>Currie &amp; Wang, 2005</b>	Prospective study (NPHS)  Canada	9909	52.0  exposed: 36.2 - non-exposed: 43.1 <sup>b</sup>	Chronic back pain (self-report, ≥ 6 months)	2.0	<b>Major depression+, number chronic medical conditions+, back/neck injury in previous 12 months+.</b>	Biological, psychological
<b>Davies et al., 2009<sup>E</sup></b>	Prospective study (EPIFUND)  UK	5190	56.4  cases: 46.4-48.8, non-cases: 45.9-46.8	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	1.3	<b>Area level SES-, gender, age.</b>	Contextual
<b>Dai et al., 2022</b>	EMR cohort (NHIRD)  Taiwan	27230	49.5  34.1 (13.5) <sup>b</sup>	IBS (ICD-9: 564.1, at least 3x)		<b>Alopecia areata+</b>	Biological
<b>Donnachie et al., 2018</b>	EMR cohort (85% of the population of Bavaria)  Germany	1016556	50.7  35.1 <sup>b</sup>	IBS & CFS (ICD-10: K58 or F45.32)	5.0	<b>Age+</b> , female gender, <b>gastrointestinal infections+</b> (salmonella, campylobacter, escherichia coli, other bacterial infection, proto-zoan infection), <b>viral infection+, non-specific infection+, depression+, anxiety+, time of infection+</b> (only for CFS).	Biological, psychological, contextual
<b>Duncan et al., 2019</b>	Birth cohort (Christchurch Health and Development Study (CHDS))  New Zealand	408	52.2  30-38	Medically Unexplained Symptoms (medical records, sufficient severity to result in referral/presentation to	9.0	Sexual abuse (age 0-16), abuse not involving penetration, <b>abuse involving sexual penetration+.</b>	Interpersonal

				secondary care in 2 or more occasions, remained unexplainable by disease, diagnosis of known MUPS, e.g. fibromyalgia, headaches without known cause and not categorized into known primary headache syndrome, e.g. migraine/TTH was classed as medically unexplained)			
<b>Elliott et al., 2002</b>	Prospective study Scotland	852	51.7 ≥ 25 yrs	Chronic pain (Validated questionnaire, CPG)	4.1	Sex, age, education, housing tenure, <b>employment-</b> , <b>SF-36 health domains+</b> , <b>marital status-</b> .	Biological, psychological, interpersonal, contextual, health behavior
<b>Emir et al., 2015</b>	EMR cohort (Humedica)  USA	587961	48.6  cases: 53.3 (14.6) – Non-cases: 52.7 (16.3)	Fibromyalgia (ICD-9: 780.73, at least 2x)	1.0	<b>GP visits i.c.w. lab-test requested+</b> , <b>outpatient visits+</b> , <b>age+</b> , <b>office visits+</b> , <b>opioid administration+</b> , <b>medications prescribed during consultation+</b> , <b>pain medication (excl. opioids)+</b> , <b>medications administered/ordered+</b> , <b>ER visits+</b> , <b>musculoskeletal conditions+</b> .	Biological, health behavior
<b>Ford et al., 2008</b>	Prospective study (Helicobacter pylori screening + treatment program)  UK	3659	56.0  50-59	IBS (questionnaire w/ Manning criteria)	10.0	Age, <b>gender+</b> , H.pylori status, marital status (single/married), smoking status, <b>alcohol use+</b> , coffee drinker, ethnicity (white/nonwhite), <b>SES-</b> , <b>NSAID use+</b> , <b>Aspirin use+</b> , <b>dyspepsia+</b> , <b>QoL-</b> .	Biological, psychological, interpersonal, contextual, health behavior
<b>Gale et al., 2012</b>	Birth cohort (British Birth Cohort study / national child development study)  UK	6902	50.8  45 yrs	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	34.0	<b>IQ at age 11+</b> , gender, <b>social class-</b> , <b>education-</b> , <b>smoking+</b> , <b>BMI+</b> , <b>GHQ-12 score+</b>	Biological, psychological, contextual, health behavior
<b>Goodwin et al., 2011</b>	Birth cohort (British Birth Cohort study 1958)  UK	17415	both  34 (7)	CFS/ME (self-report)	9.0, 19.0, 26.0, 31.0, 35.0	<b>Psychopathology+</b> (any externalizing/internalizing problems at age 23 and 33, multiple reports age 16-33), <b>malaise+</b> , energy levels, activity level.	Biological, psychological
<b>Goodwin et al., 2013</b>	Birth cohort (British Birth Cohort study 1958)  UK	17415	both  median: 34 (28-38)	IBS (self-report)	26.0, 31.0, 35.0	Childhood: <b>Parental sexual abuse+</b> , parental physical abuse, cumulative adversity, internalizing problems, maternal/paternal absence, in care, divorce parents, <b>physical symptoms+</b> , <b>gastrointestinal symptoms+</b> , gastrointestinal illness, chronic illness, atopy, <b>infectious illness+</b> , neglected/underfed appearance, many colds, gender, <b>throat infection+</b> (more than 3 at age 16), <b>headache/migraine+</b> , <b>school absence+</b> , <b>sleeping problems+</b> , atopy Adulthood: <b>psychopathology+</b> (age 23 and 33),	Biological, psychological, interpersonal, contextual
<b>Gupta et al., 2007<sup>E</sup></b>	Prospective study (EPIFUND)  UK	3171	56.5  25-65	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	1.3	<b>Somatic symptoms+</b> , <b>illness behavior+</b> , <b>health anxiety+</b> , <b>HADS anxiety+</b> , <b>HADS depression+</b> , <b>sleep problems+</b> , <b>life events+ (≥2)</b> , <b>number of psychological factors+</b> .	Biological, psychological, interpersonal, health behavior
<b>Hagen et al., 2012</b>	Prospective study (HUNT 2+3)  Norway	13781	56.5  47.1 (13.2) <sup>b</sup>	Chronic musculoskeletal complaints (Self-report)	11.0	<b>Headache+</b> , <b>migraine+</b> .	Biological
<b>Hamilton et al., 2009</b>	EMR cohort (General Practice Research Database (GPRD))  UK	13164	68.5  median: 41 (31-53)	Chronic fatigue (GPRD codes)	3.0	BMI, systolic blood pressure, <b>primary care utilization+</b> (consultations, prescriptions, antibiotics, sickness certificate, specialist referral), <b>abdominal pain+</b> , <b>fatigue symptom+</b> , <b>dizziness+</b> , <b>other abdominal symptoms+</b> , <b>any infection+</b> ,	Biological, health behavior

						<b>depressive disorders+, functional disorder+, menstrual disorders+, child birth+, atopy+, immunization+, upper respiratory tract infection+, influenza-like illness, gastroenteritis+, immunization+, fractures, tonsillitis+, viral infection+.</b>	
<b>Hanevik et al., 2014<sup>f</sup></b>	Prospective study Norway	1160	68.1 exposed: 39.2, non- exposed: 41.0	IBS & chronic fatigue (Self-report, Rome III & Fatigue questionnaire, ≥ 6 months)	6.0	<b>Giardia infection+.</b>	Biological
<b>Harvey et al., 2008a<sup>G</sup></b>	Birth cohort 1946 (Medical Research Council National Survey of Health and Development)  UK	5362	50.9 53	CFS/ME (semi-structured interview, trained nurses)	10.0, 17.0, 22.0, 38.0, 40.0, 47.0, 53.0	<b>Gender+</b> (female), weight at birth and age 7, <b>BMI at age 36+, 43+</b> and 53, father SES, education, SES. Childhood: cough, fits/convulsions, persistent abdominal pain, vomiting, chronic illness, school absence, family members have frequent colds, heart murmur, asthma, atopic illness, <b>energy level+</b> , sports ability, ability to sport. Adulthood: hay fever, skin trouble, allergies, atopic illness, family history of atopy, self-rated fitness, <b>sports or keep fit activities ≥4 times a month+, persistent sport at least once a week+.</b>	Biological, contextual, health behavior
<b>Harvey et al., 2008b<sup>G</sup></b>	Birth cohort (Medical Research Council National Survey of Health and Development)  UK	5362	50.9 53	CFS/ME (semi-structured interview, trained nurses)	10.0, 17.0, 22.0, 38.0, 40.0, 47.0, 53.0	<b>Gender+</b> (female), father's social class, social class, direction of social class mobility, psychotic disorder, <b>depression+</b> , emotional disorders, neuroticism, extraversion, <b>parental psychiatric disorder+</b> , parental history of psychiatric disorder.	Psychological, interpersonal, contextual
<b>Heuch et al., 2013<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18882	53.7 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>BMI+.</b>	Biological
<b>Heuch et al., 2014a<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	17209	47.9 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>High blood pressure-</b> (systolic, diastolic and pulse pressure).	Biological
<b>Heuch et al., 2014b<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18882	53.8 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Serum lipid levels+</b> (only triglycerides).	Biological
<b>Heuch et al., 2015a<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18784	53.6 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Body height+</b> (only women: ≥ 170cm)	Biological
<b>Heuch et al., 2015b<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18784	53.6 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Body weight+, BMI+, waist circumference+, hip circumference+, waist-hip ratio+.</b>	Biological
<b>Heuch et al., 2016<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18068	53.2 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Physical activity in leisure time-</b> (≥50 years old, education, ≥1 hard activity)	Health behavior
<b>Heuch et al., 2017<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	4822	56.4 30-66	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Vitamin D status+</b> (inconclusive association in women during winter/spring time).	Biological
<b>Heuch et al., 2019<sup>h</sup></b>	Prospective study (HUNT 2+3)  Norway	18972	54.0 41-80	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Diabetes+</b> (only men).	Biological
<b>Heuch et al., 2022</b>	Prospective study (HUNT 2+3)  Norway	5394, 11659	100.0 40-69 <sup>b</sup> , 20-69 <sup>b</sup>	Chronic LBP (Self-report, ≥ 3 months)	11.0	<b>Age of menarche+, age of menopause.</b>	Biological

## Supplemental Digital Content

<b>Hocking et al., 2009</b>	Birth cohort (British Birth cohort 1995) UK	8572	52.2 45	Chronic pain (Self-report, partial ACR criteria for fibromyalgia)	45.0	<b>ADRB2 SNP variants+, haplotype combinations+, COMT variants</b>	Biological
<b>Holliday et al., 2009<sup>e</sup></b>	NCC cohort (EPIFUND) UK	1189	58.0 50 (9.6)	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	4.0	SNP variants: GCHI-CAT, OPRMI	Biological
<b>Holliday et al., 2010<sup>e</sup></b>	NCC cohort (EPIFUND) UK	994	58.0 50.9 (49.8 to 52.0) <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	4.0	CRH, CRH receptor 1 (CRHR1), CRH binding protein (CRHBP), ACTH precursor pro-opiomelanocortin (POMC) and its receptor ( <b>MC2R+</b> ), the glucocorticoid receptor (NR3C1) and corticosteroid binding globulin ( <b>SERPINA6+</b> )	Biological
<b>Hou et al., 2020</b>	EMR cohort (NHIRD) Taiwan	22575	60.3 ≥20yrs <sup>b</sup>	Tinnitus (ICD-9-CM, specialist diagnosis)	7.5	<b>Anxiety disorder+</b> .	Psychological
<b>Howell et al., 2004</b>	Birth cohort (Dunedin) New Zealand	980	46.3 26	IBS (Manning/Rome criteria)		<b>Childhood SES+</b> .	Contextual
<b>Hsu et al., 2015</b>	EMR cohort (NHIRD) Taiwan	281775	19.9 35 to 65 years (69.9%) <sup>b</sup>	IBS (ICD-9: 564.1)	2.0-10.0	<b>Alcohol use disorder+</b>	Health behavior
<b>Hsu et al., 2019</b>	EMR cohort (NHIRD/LHID2000) Taiwan	51485	54.0 30-39 <sup>†</sup>	BPPV (diagnosed by neurologists or otorhinolaryngologists)	10.0	<b>Depressive disorder+</b> , age, sex, <b>hypertension+</b> , diabetes, <b>dyslipidemia+</b> , <b>coronary artery disease+</b> , <b>hyperthyroidism+</b> , hypothyroidism, <b>cerebrovascular disease+</b> , systemic lupus erythematosus, degree of urbanization, income.	Biological, psychological, contextual
<b>Huerta et al., 2002</b>	EMR cohort (General practice research database) UK	5371	N/A	IBS (Specialist diagnosis)	4.0	<b>Asthma+</b> .	Biological
<b>Hunskar et al., 2012<sup>F</sup></b>	Retrospective cohort (Bergen) Norway	1945	65.7 36.2	IBS & Chronic fatigue (Self-report, Rome III & Chalder fatigue questionnaire, ≥ 6 months)	3.0	Giardias i.c.w. asthma, giardia i.c.w. allergy	Biological
<b>Iversen et al., 2017</b>	Prospective study (Trondheim) Norway	216	53.2 26	Chronic pain (Self-report, SF-36, ≥ 6 months)	26.0	<b>Birth weight-</b> , small for gestational age.	Biological
<b>Jones et al., 2006</b>	EMR cohort (General practice research database) UK	5481	51.0 N/A	IBS (Read code)	2.0	<b>Depression+, anxiety+, asthma+, UTI+, gall-bladder surgery+, hysterectomy+</b> . Referral to: <b>general surgery+</b> , <b>general medicine+</b> , <b>gynecology+, psychiatry+</b> .	Biological, psychological, health behavior
<b>Jones et al., 2007<sup>I</sup></b>	Birth cohort (British Birth Cohort study 1985) UK	7470	both 45	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	38.0	<b>Number of symptoms</b> (vomiting/bilious attacks, abdominal pain, headache/migraine) <b>at 7 years+, 11 years+ and 16 years+</b> .	Biological
<b>Jones et al., 2009<sup>I</sup></b>	Birth cohort (British Birth Cohort study 1985) UK	7517	both 45	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	38.0	Childhood physical traumatic events (before age 7): surgical operations, <b>hospitalization after traffic accident+</b> , hospitalization after domestic accident/other. Childhood social/psychological adversity (before age 7): <b>maternal separation+</b> (only > 6 months), <b>institutional care+</b> , death father, <b>death mother+</b> , <b>divorce/separation/desertion+</b> , <b>family alcoholism+</b> , <b>family financial difficulties+</b> .	Biological, interpersonal
<b>Jones et al., 2011<sup>E</sup></b>	NCC cohort (EPIFUND) UK	7517	57.4 25-65	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	4.0	Traumatic events: <b>road traffic accident+</b> , injury at work, fracture, surgery, hospitalization, childbirth.	Biological

## Supplemental Digital Content

<b>Kang et al., 2013</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	53772	100  50.4 (16.4)	Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) (ICD-9-CM 327.23, 780.51, 780.53, or 780.57)	3.0	<b>Reflux esophagitis+</b> .	Biological
<b>Kim et al., 2019</b>	EMR cohort (HIRA)  Korea	203410	74.5  ≥20 yrs <sup>b</sup>	BPPV (ICD-10: H81.1, at least 2x)	11.0	<b>Migraine+</b> .	Biological
<b>Kim et al., 2020a</b>	EMR cohort (HIRA-NSC)  Korea	51833	65.6  20-60 <sup>b</sup>	BPPV (ICD-10: H81.1, at least 2x)	12.5	<b>Mood disorder+</b> .	Psychological
<b>Kim et al., 2020b</b>	EMR cohort (NHIS-HEALS)  Korea	32772	both  40-60 <sup>b</sup>	BPPV (ICD-10: H81.2, at least 2x)	12.5	<b>Osteoporosis+</b> (only for women).	Biological
<b>Kingma et al., 2013</b>	Birth cohort (British Birth Cohort study)  UK	17638	48.7  42	IBS & CFS (self-report)	31.0	Childhood cognitive ability.	Contextual
<b>Klooker et al., 2009</b>	Birth cohort (Dutch Famine Birth Cohort)  Netherlands	1423	55.0  58	IBS (Self-report, Rome II)	58.0	Historic time of birth: during/ <b>shortly after world war II+</b> .	Contextual
<b>Koloski et al., 2012<sup>k</sup></b>	Prospective study  Australia	1002	52.1  45.1	Any functional gastrointestinal disorder (FGID) & IBS & functional dyspepsia (FD) (Self-report, Rome II)	12.0	<b>Anxiety+</b> (only any FGID and IBS), <b>depression+</b> (only IBS and FD).	Psychological
<b>Koloski et al., 2015<sup>k</sup></b>	Prospective study  Australia	767	48.2  59.9 (11.5)	IBS & functional dyspepsia (FD) (Self-report, Rome III)	12.0	<b>Gastroenteritis+</b> (only IBS), <b>antibiotic use+</b> (only IBS), overseas travel, cesarean delivery, prematurity, breastfed, <b>duration of breastfeeding-</b> , pet exposure, <b>herbivore pet+</b> , <b>carnivore pet+</b> (only FD), omnivore pet, <b>sharing bedroom+</b> , <b>hygiene factors+</b> (only IBS).	Biological, interpersonal, contextual
<b>Koloski et al., 2016<sup>k</sup></b>	Prospective study  Australia	1900	53.0  57 (14)	IBS & functional dyspepsia (FD) (Self-report, modified Rome III)	1.0	<b>Anxiety+</b> , <b>depression+</b> .	Psychological
<b>Kopec et al., 2004<sup>m</sup></b>	Prospective study (Canadian National Population Health Survey)  Canada	10007	54.3  18-65+	Chronic back pain (self-report, ≥ 6 months)	2.0	Male: age, <b>height+</b> , <b>self-rated health-</b> , <b>usual daily activities+</b> , <b>gardening-</b> , <b>chronic stress index+</b> . Female: <b>activity restriction+</b> , <b>arthritis/rheumatism+</b> , <b>personal stress index+</b> , <b>psychological childhood trauma+</b> (only ≥ 2). Weight, BMI, smoke exposure, energy expenditure, smoking, alcohol use, type of physical activity, vision, hearing, speech, mobility, dexterity, emotional problems, cognitive problems, health status index, activity limiting injury, pregnancy,(food) allergy, asthma, high blood pressure, migraine, chronic bronchitis/emphysema, sinusitis, diabetes, epilepsy, heart disease, cancer, stomach/intestinal ulcers, stroke, incontinence, Alzheimer's, cataracts, glaucoma, acne, long-term condition, environmental/financial/family health/relationship/child-related stress, chronic stress, depression, social support, self-esteem, locus of control, mental health distress, sense of coherence, frequency of contact, social involvement, recent life events, immigrant, education, income adequacy, language, main activity, living	Biological, psychological, interpersonal, contextual, health behavior

						arrangements, marital status, urbanization, working status, work-stress/status combination.	
<b>Kopec et al., 2005<sup>m</sup></b>	Prospective study (Canadian National Population Health Survey (NPHS))  Canada	9552	55.4  18-65+	Chronic back pain (self-report, $\geq 6$ months)	2.0, 4.0	<b>Two or more stressful events in childhood+, prolonged hospitalization+, parental drug abuse, parental divorce, parental unemployment+, physical abuse, sent away from home, very scared+.</b>	Psychological, interpersonal, contextual
<b>Kowalczyk et al., 2014</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	4782	Both  37.9	IBS (ICPC-code)	11.0	<b>Acute gastroenteritis+, age group, female gender, SES, practice, consultation frequency+, multiple gastroenteritis+, concomitant cramps+, weight loss, dyspepsia+, psycho-social+, fear+.</b>	Biological, psychological, contextual, health behavioral
<b>Larrosa Pardo et al., 2019</b>	EMR cohort (Skåne Healthcare Register)  Sweden	419291, 803805	50-100  >21 yrs <sup>b</sup>	Fibromyalgia (ICD-10: M797)	10.0	<b>Rheumatoid arthritis+, endometriosis+, inflammatory bowel disease+.</b>	Biological
<b>Lau et al., 2014</b>	Prospective study (Study of Health in Pomerania)  Germany	3134	51.9  non-cases: 48.9 (15.4) - cases: 57.1 (12.6) <sup>b</sup>	Tinnitus (self-report)	5.0	<b>Palpation pain in TMJ+, age+, gender, education-, muscle tenderness on palpation+, reported TMJ pain, headache+, depression.</b>	Biological, psychological, contextual
<b>Lau et al., 2015</b>	EMR cohort (NHIRD)  Taiwan	34510	73.3  45.5 (15.1)	CFS (ICD-9-CM: 780.71)	2.0	<b>Migraine+, age+, sex, hypertension+, diabetes+, hyperlipidemia+, anxiety+, depression+, coronary artery disease+.</b>	Biological, psychological, contextual
<b>Lei et al., 2016</b>	EMR cohort (NHIRD/LHID2003)  Taiwan	53016	30.2  exposed: 47.9 (14.8) non-exposed: 49.1 (15.6)	IBS (ICD-9-CM: code 564.0)	3.0	<b>Urinary stone attack+, geographic regions- (only eastern compared to northern), income level, urbanization, diabetes, hypertension, renal failure, liver cirrhosis+, stroke+, osteoporosis+, fibromyalgia+.</b>	Biological, contextual
<b>Liang et al., 2020</b>	EMR cohort (NHIRD)  Taiwan	13345	34.1  57.5 (18.1)	IBS (ICD-9-CM: code 564.0)	14.0	<b>Helicobacter Pylori infection+, age group, insurance, coronary artery disease, cardiovascular disease+, hypertension, hyperlipidemia, diabetes, asthma+, season+, location, urbanization, level of care</b>	Biological, contextual
<b>Lin WC et al., 2017</b>	EMR cohort (NHIRD/LHID2005)  Taiwan	3134	52.6  46.3 (34.2–56.9) <sup>b</sup>	Myofascial pain (ICD-9-CM: 729.0, at least 2x)	10.0	<b>Insomnia+, age, gender+, urbanization level+, income, hypertension+, diabetes mellitus, dyslipidemia, coronary artery disease, congestive heart failure, cirrhosis, cerebrovascular disease, malignant neoplasms+.</b>	Biological, contextual
<b>Lin WT et al., 2017</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	98265	58.5  $\geq 20$ <sup>b</sup>	IBS (ICD-9-CM code: 564.1, $\geq 3$ outpatient visits / $\geq 1$ hospitalization)	10.0	<b>SSRIs+, gender, age+, anti-psychotics, diabetes, hypertension, hyperlipidemia, colorectal cancer, major depressive disorders, anxiety disorder+, bipolar disorder.</b>	Biological, psychological, contextual
<b>Litleskare et al., 2015<sup>a</sup></b>	Prospective study (Bergen)  Norway	1945	65.7  36.1 (range: 0-99) <sup>b</sup>	IBS (Self-report, Rome III)	3.0	<b>Giardia+, giardia i.c.w. perceived food intolerance+.</b>	Biological
<b>Litleskare et al., 2018<sup>a</sup></b>	Prospective study (Bergen)  Norway	1289	66.0  43	IBS & chronic fatigue (Self-report, Rome III & Fatigue questionnaire)	10.0	<b>Giardia+.</b>	Biological
<b>Littlejohn et al., 2012</b>	Birth cohort (British Birth Cohort study / national child development study)  UK	9377	both  45	Chronic widespread pain (validated questionnaire)	45.0	Gestational age, <b>birthweight-</b> (only very low birth weight).	Biological

## Supplemental Digital Content

<b>Liu et al., 2017</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	4,560	100.0  51.8 (16.1)	BPPV (ICD-9-CM: 386.11, at least 2x)	11.0	<b>Age+, urbanization-, health care utilization+, insurance wage+/- (only for males), estrogen prescription+.</b>	Biological, contextual, health behavior
<b>Macfarlane et al., 2009</b>	Birth cohort (British Birth Cohort study / national child development study)  UK	9377	42.7  45	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	45.0	<b>Adult social class-, childhood social class-, recent life events+, GHQ score-, mental health rCIS score+, BMI+, regular exercise.</b>	Biological, psychological, interpersonal, contextual
<b>Marrie et al., 2009</b>	EMR cohort (Manitoba Health)  Canada	25132	Both  ≥20 yrs <sup>b</sup>	Fibromyalgia (ICD-9 or ICD-10)	20.0	<b>Multiple sclerosis+, age+.</b>	Biological, contextual
<b>Marshall et al., 2006</b>	Prospective study (Walkerton Health Study)  USA	2069	55.5  46.6 <sup>b</sup>	IBS (Self-report & clinical record, Rome I criteria)	3.0	<b>Acute gastroenteritis+</b>	Biological
<b>Marshall et al., 2010</b>	Prospective study (Walkerton Health Study)  USA	3280	55.5  49.3 (15.5)	IBS (Self-report & clinical record, Rome I criteria)	8.0	<b>Acute gastroenteritis+</b>	Biological
<b>Masters et al., 2015</b>	EMR cohort (Humedica)  USA	587961	64.6  53 <sup>b</sup>	Fibromyalgia (ICD-9:780.73, at least 2x)	1.0	Comorbid conditions: <b>any musculoskeletal pain condition+, lupus+, diffuse diseases of connective tissue+, arthritis/other arteriopathies+, rheumatoid arthritis+, osteoarthritis+, low-back pain+, back-neck pain+, rheumatism+, other musculoskeletal pain condition+, any neuropathic pain condition+, postherpetic neuralgia, carpal-tunnel syndrome+, causalgias+, neuritis radiculitis+, trigeminal neuralgia+, atypical facial pain+, phantom-limb pain, autonomic neuropathies, mononeuritis of lower limb+, other polyneuropathies+, back-neck pain with neuropathic involvement+, any sleep disorder+, insomnia/sleep disorder/ apnea+, restless-leg syndrome+, any mental disorder+, depression+ anxiety/generalized anxiety disorder+, bipolar disorder+, panic disorder+, PTSD+, fatigue+, headache/migraine+, dyspareunia+, tinnitus, chest pain+, TMJ disorder+, memory loss+, abnormal involuntary movements+, obesity+, morbid obesity+, interstitial cystitis+, any gastrointestinal disorder+, IBS+, gastroesophageal disease/gastric/duodenal/other gastrointestinal disorder+. Charlson comorbidity: <b>any</b> Charlson comorbidity+, myocardial infarction, congestive heart failure+, peripheral vascular disease+, cerebrovascular disease+, dementia+, COPD+, rheumatologic disease+, peptic ulcer disease+, mild liver disease, diabetes+, diabetes with chronic complications+, hemiplegia/paraplegia, <b>renal disease+</b>, malignancy, liver disease, metastatic solid tumor, AIDS. Health care resources: <b>ER visits+, hospitalizations+,</b></b>	Biological, psychological, health behavior

						<b>office visits+, outpatient visits+, prescriptions+, prescription pain medication+, opioid prescriptions+, visits in which diagnostics/tests were ordered+, visits in which imaging was ordered.</b>	
<b>McBeth et al., 2001<sup>a</sup></b>	Prospective study UK	1404	56.7 18-64	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	1.0	<b>Illness behavior+, somatic symptoms+, GHQ+, fatigue+, health anxiety.</b>	Biological, psychological, health behavior
<b>McBeth et al., 2003<sup>a</sup></b>	Prospective study UK	1403	both 18-65	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	3.0	Work-related manual handling (lifting/carrying 25kg, <b>pushing/pulling 25kg+</b> ) and posture (typing ≥ 30min, standing still ≥ 30 min, sitting ≥ 30 min, <b>kneeling+, repetitive movements of wrists/arms+</b> ), workplace environment (job satisfaction, successful work, boring work, fast work, social support, ability to make own decisions, learning new things), GHQ, <b>illness behavior+</b> , health anxiety, <b>somatic symptoms+, fatigue+</b> , pain status ( <b>any pain+, low back+, knee, wrist/forearm+, shoulder+</b> ).	Biological, psychological, interpersonal, contextual, health behavior
<b>McBeth et al., 2019</b>	Prospective study (PAALS) UK	1162	57.1 non-cases: 61 (53-67) - cases: 62 (54-67) <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	1.0	<b>Neuropathic pain+, pain characteristics+</b> (burning, painful cold, electric shock, tingling, pins and needles, itching, numbness), <b>number of pain sites+, number of pain medications+</b> , age, <b>gender+</b> (female), occupational status, deprivation, <b>HADS depression+, HADS anxiety+, sleep problems+</b> .	Biological, psychological, interpersonal, contextual, health behavior
<b>McCabe et al., 2016</b>	Prospective study (EMAS) Europe	2313	0.0 58.8 (10.6) <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	4.3	<b>Vitamin D status-, age, BMI+, sit-to-stand-time+, time-to-walk-50-feet+, PASE score,</b> alcohol consumption, smoking, <b>depression+, number of comorbidities+, walking/cycling ≥ 30min a day.</b>	Biological, psychological, contextual, health behavior
<b>Monden et al., 2020</b>	Prospective study (Lifelines) Netherlands	135862	55.0 48.8 (13.1) <sup>b</sup>	IBS & CFS & fibromyalgia (Self-report)	1.4, 2.4	<b>Gender+</b> (female), age, race, living style, lower education level, lower income, <b>work status-</b> , duration of searching job, diabetes, cancer, hypertension, stroke, asthma/COPD, health related disorder, <b>gastrointestinal disorders+, neurological disorder,</b> blood related disorder, skin related disorders, no listed disorder, <b>IBS+, FM+, kidney disease+, musculoskeletal disorders+, psychiatric disorders+, high cholesterol+, allergy+, BMI+/-,</b> <b>medications+</b> (ATC -codes: A02B, A03A, A03F, A06A, G03A-, G03H, H03A, M01A, R01A, R03A, S01X), <b>health care utilization+, physical activity, smoking-, sleep disturbance+, alcohol consumption-, work absence due to illness, serious illness+, injury, assault in past year (LTE), serious life-events in past year (LTE)+, experience difficulties and stress related to health (LDI)+, long-term difficulties (LDI)+, NEO personality inventory (only self-discipline+), somatization scale sum score (SCL-90)+, health related of life scores (RAND: bodily pain-, general health-,</b>	Biological, psychological, interpersonal, contextual, health behavior

						<b>vitality-</b> , depression diagnosis, anxiety.	
<b>Mork et al., 2010<sup>R</sup></b>	Prospective study (HUNT1+2) Norway	15990	100.0 ≥ 20 <sup>b</sup>	Fibromyalgia (Self-report)	11.0	<b>Exercise per week, exercise sessions per week, usual intensity of exercise, BMI+/-.</b>	Biological, health behavior
<b>Mork et al., 2012<sup>R</sup></b>	Prospective study (HUNT1+2) Norway	12350	100.0 ≥ 20 <sup>b</sup>	Fibromyalgia (self-report)	11.0	<b>Sleep problems+.</b>	Biological
<b>Mork et al., 2013</b>	Prospective study (HUNT) Norway	27715	57.5 ≥ 20 <sup>b</sup>	Chronic arm pain (self-report, ≥ 3 months)	11.0	<b>Exercise per week-, exercise sessions per week-, usual intensity of exercise-, BMI+/-.</b>	Biological, health behavior
<b>Mork et al., 2014</b>	Prospective study (HUNT1+2) Norway	26896	both ≥ 20 <sup>b</sup>	Chronic back pain (self-report, ≥ 3 months)	11.0	<b>Sleep problems+.</b>	Biological
<b>Mundal et al., 2014</b>	Prospective study (HUNT2+3) Norway	19192	53.8 44.5 <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	11.0	<b>Anxiety+, depression+, alcohol use-, sleep problems+, BMI+/-, smoking status+.</b>	Biological, psychological, health behavior
<b>Muthuri et al., 2018</b>	Birth cohort (British Birth cohort (MRC NSHD)) UK	2453	both 31-69	Chronic back pain (self-report, recurring)	68.0	Childhood: <b>height+</b> (only female), BMI, <b>abdominal pain+</b> , serious illness, emotional problems, <b>conduct problems+</b> , care of house and child, parental divorce, <b>parental health-, father's occupational class-, father's education, mother's education-, house-.</b>	Biological, psychological, contextual
<b>Myrtveit et al., 2013</b>	Prospective study (HUNT 2+3) Norway	20799	54.4 44.4 (11.9) <sup>b</sup>	Chronic whiplash (self-report)	11.0	Gender, <b>age+, marital status-</b> (separated/divorced), <b>receipt of benefits+</b> , smoking, alcohol consumption, <b>physical activity-, use of health-services+ (general practitioner+, company doctor, hospital doctor+, other doctor, physiotherapist+, chiropractor, homeopath, different healer/doctor+, hospital stay+, number of different health-services visited+), use of medications+</b> (cod liver, <b>allergy medication+, analgesics+, asthma medications+, cardiac medications, anti-depressants, iron-pills, sedetiva+, sleep medication, vitamin D, other, number of medications used+), self-rated health-, musculoskeletal symptoms+, ≥2 diffuse complaints+, kept from working due to pain+, comorbid somatic diagnoses+, HADS anxiety+, HADS depression, comorbid anxiety and depression+.</b>	Biological, psychological, contextual, health behavior
<b>Nakamura et al., 2014</b>	Prospective study Japan	4797	56.0 ≥20 yrs <sup>b</sup>	Chronic pain (Self-report, >6 months)	1.0	<b>Female gender+, age group, area, urbanization+, occupation+, marital status, living condition, BMI+, alcohol+, smoking+, education+, income.</b>	Biological, contextual, health behavior
<b>Nicholl et al., 2010<sup>T</sup></b>	NCC cohort (EPIFUND & EMAS) UK	994	66.0 non-cases: 48.5 – cases: 52.6 <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	25.0	Single nucleotide polymorphisms (SNP): COMT, rs4680.	Biological
<b>Nicholl et al., 2011<sup>T</sup></b>	NCC cohort (EPIFUND & EMAS) UK & Europe		36.6 48.5 - 59.5 (medians of 4 groups) <sup>b</sup>	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	25.0	Single nucleotide polymorphisms (SNP): <b>rs12584920+.</b>	Biological

<b>Nilsen et al., 2011</b>	Prospective study (HUNT 1+2) Norway	32417	51.5 43-45	Musculoskeletal pain in the low back or neck/shoulders (self-report, standardized Nordic Questionnaire)	11.0	<b>Weight+, activity level-</b>	Biological, health behavior
<b>Nitter et al., 2012</b>	Prospective study Norway	577	100.0 20-49†	Chronic pain (Self-report + validation interview, ≥ 3 months)	17.0	<b>Disrupted sleep+, fatigue+, non-restorative sleep+, anxious/frightened/nervous+, regular headache+, rumbling stomach+, stool, numbness/tingling, joints feel swollen, non-specific health complaints+, age.</b>	Biological, psychological, contextual
<b>Odegard et al., 2011</b>	Prospective study (HUNT 2+3) Norway	14042	non-exposed: 48.4 - with exposed: 53.4  non-exposed: 48.1 - with exposed: 55.2 <sup>b</sup>	Chronic tension type headache (Self-report, IICDH-2 criteria)	11.0	<b>Insomnia+/-.</b>	Psychological
<b>Olen et al., 2018</b>	Birth cohort Sweden		18-37	IBS (ICD-codes K58.0, K58.9)	18.0	<b>Birth weight for gestational age+, gestational age+/-, mode of deliver-, Apgar score at 5 min, neonatal distress, neonatal respiratory distress+.</b>	Biological
<b>Pan et al., 2016</b>	EMR cohort (NHIRD/LHID2010) Taiwan	7634281	Both ≥20 yrs <sup>b</sup>	IBS (ICD-9-CM: code 564.0)		<b>Age+, female sex+.</b>	Contextual
<b>Pang et al., 2010<sup>i</sup></b>	Birth cohort (1958 British Birth Cohort) UK	8572	both 45	Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	38.0	Parent and teacher reported: <b>maladaptive childhood behavior age 7+, age 11+, 16+.</b>	Interpersonal
<b>Persson et al., 2015<sup>F</sup></b>	Retrospective study (Bergen) Norway	1571	67.3 ≥18	IBS, functional dyspepsia, chronic fatigue, overactive bladder syndrome (Self-report, Rome III)	6.0	<b>Giardia+.</b>	Biological
<b>Picavet et al., 2002</b>	Prospective study (DMC3) Netherlands	1161	57.3 25-64	Chronic LBP (validated questionnaire)	0.5	<b>Pain catastrophizing+, kinesiophobia.</b>	Biological, psychological
<b>Pico-Espinosa et al., 2017</b>	Prospective study (Stockholm Public Health Cohort) Sweden	10044	49.4 45-84	Back, neck and shoulder pain (BNSP) (self-report)	4.0	<b>Diabetes+ (only male), hyperlipidemia+.</b>	Biological
<b>Puroila et al., 2015</b>	Birth cohort (1966 NFBC) Finland	5466	52.2 31	Musculoskeletal pain (self-report, at least 2 sites, quite often during 12 months)	17.0	<b>Physical activity+ (only female), sports club membership, body weight+, smoking+, alcohol consumption+.</b>	Biological, health behavior
<b>Raphael et al., 2002</b>	Retrospective study USA	1312	100.0 38.6 (1.3)	Chronic fatigue (Interview, ≥ 6 months)	0.4	9/11 terrorist attack.	Interpersonal
<b>Raslau et al., 2016</b>	NCC (Olmsted County) USA	178	61.0 median 48 (range: 25-70)	IBS (Self-report, Rome III)	48.0	<b>Birth weight-, maternal age, gestational age, delivery method, peri-partum complications, epidural/spinal anesthetic used, Apgar score, peri-partum length/hospital stay, serious medical condition at birth, jaundice, peri-partum ICU admission, nasogastric tube placed, serious medical condition in first year of life, post birth hospitalization in 1 year, post birth ER, antibiotic exposure, feeding method, duration of breast milk</b>	Biological
<b>Reed et al., 2013</b>	Retrospective study USA	906	100.0 36.9 (8.6)	Vulvodynia (Self-report, ≥ 3 months)	36.9	Oral contraceptives.	Biological
<b>Reed et al., 2014</b>	Prospective study USA	1786	100.0 cases: 45.6	Vulvodynia (Self-report, ≥ 3 months)	6.0	<b>Age-, ethnicity, marital status+, sleep dysfunction+, any chronic pain+/-, pain with intercourse+, vulvar</b>	Biological, psychological, contextual

			(14.4) – non-cases: 51.0 (16.7) <sup>b</sup>			<b>symptoms (in past)+, sleep dysfunction+, psychological distress+ (PTSD, depression), other chronic comorbid pain conditions+ (FM, interstitial cystitis, IBS)</b>	
<b>Rodriguez &amp; Ruigomez, 1999</b>	EMR cohort (General Practice Research Database)  UK	584626	47.9  25-74 <sup>b</sup>	IBS (Doctor diagnosed, random sample for confirmation)	1.0	<b>Gastroenteritis+.</b>	Biological
<b>Ruigomez et al., 2003</b>	EMR cohort (General Practice Research Database)  UK	90119	100  50-69 <sup>b</sup>	IBS (Doctor diagnosed, random sample for confirmation)	6.0	<b>Hormonal replacement therapy+, age, consultation frequency+, mental- and CNS-disorders+, pain related disorders+, gastroenteritis+, hysterectomy.</b>	Biological, psychological, contextual, health behavior
<b>Ruigomez et al., 2007</b>	EMR cohort (General Practice Research Database)  UK	6105	Both  ≥20 yrs <sup>b</sup>	IBS (Doctor diagnosed, random sample for confirmation)	10.0	<b>Gastroenteritis (bacterial)+, gastroesophageal reflux+, dyspepsia+, peptic ulcer, appendicitis, diarrhea+, depression+, anxiety+, stress+, sleep disorders+, asthma, COPD, ischemic heart disease, diabetes+, smoking, BMI+, alcohol consumption+.</b>	Biological, psychological, contextual, health behavior
<b>Ruigomez et al., 2009</b>	EMR cohort (General Practice Research Database)  UK	6421	Both  ≥20 yrs <sup>b</sup>	IBS (Doctor diagnosed, random sample for confirmation)	1.0	<b>Gastroesophageal reflux disease+.</b>	Biological
<b>Shen et al., 2016</b>	EMR cohort (NHIRD)  Taiwan	148239	53.9  54 (18.1) <sup>b</sup>	IBS (ICD-9 564.1)	10.0	<b>Asthma+, gender, age+, COPD+, GERD+, allergic rhinitis+, chronic sinusitis+, atopic dermatitis+, anxiety+, depression+, obesity+, follow-up year+.</b>	Biological, psychological, contextual
<b>Shih et al., 2017</b>	EMR cohort (NHIRD)  Taiwan	741720	45.7  ≥ 18 <sup>b</sup>	Tinnitus (ICD-9 388.3, ≥3 by otolaryngologists, intersperse by a min. 4 weeks)	10.0	<b>Chronic kidney disease+, gender, age, hypertension, diabetes+, heart failure+, stroke, COPD, liver cirrhosis, Meniere's disease+, traumatic brain injury+, Charlson comorbidity+, aminoglycosides, macrolides, loop diuretics, antineoplastic agents, aspirin, NSAIDs, geographic location+ (northern is reference), urbanization level+, insured premium+/-.</b>	Biological, contextual
<b>Shih et al., 2018</b>	EMR cohort (NHIRD)  Taiwan	123120	48.2  56.4 (17.5) <sup>b</sup>	BPPV (ICD-9-CM: 386.11)	14.0	<b>Non-apnea sleep disorders+, gender, age group, hypertension+, diabetes, congestive heart failure+, stroke, COPD, liver cirrhosis+, chronic kidney disease+, migraine, osteoporosis, hyperlipidemia, charlson comorbidity index+.</b>	Biological, contextual.
<b>Sivertsen et al., 2014</b>	Prospective study (HUNT 2+3)  Norway	24715	56.9  45.3 (19-67)	Fibromyalgia (Self-report)	11.0	<b>Insomnia+.</b>	Psychological
<b>Skarpsno et al., 2019a</b>	Prospective study (Tromsø study)  Norway	6356	50.6  53.5 (11.2) - 59.7 (10.3) (different mean given, these are the lowest and the highest) <sup>b</sup>	Chronic musculoskeletal pain & Chronic widespread pain (Self-report, ACR criteria for fibromyalgia)	8.0	<b>Sleeplessness+, high sensitivity C-reactive protein (only joint effect with sleeplessness).</b>	Biological, psychological
<b>Skarpsno et al., 2019b</b>	Prospective study (HUNT 2+3)  Norway	14793	100.0  exposed: 43.5 (12) – non-	Fibromyalgia (self-report)	11.0	<b>Insomnia+.</b>	Psychological

			exposed: 47 (11.8) <sup>b</sup>				
<b>Skarpsno et al., 2020</b>	Prospective study (HUNT 3+4)  Norway	10847	53.8  50.3 (13.7) - 46.0 (14.3)	Chronic widespread pain (Self-report)	11.0	<b>Insomnia+</b> .	Psychological
<b>Smith et al., 2004</b>	Prospective study  Scotland	1431	both  ≥25	Chronic back pain (self-report, ≥ 3 months)	4.0	<b>Femal gender+, age+, employment, unable to work due to illness+, living situation, education, housing tenure, marital status, any chronic pain at baseline+, SF-36+</b> (general health, physical functioning, social functioning, role physical, role emotional, energy & vitality, bodily pain)	Biological, psychological, interpersonal, contextual, health behavior
<b>Talley et al., 2001</b>	Birth cohort (Dunedin)  New Zealand	890	49.2  26	IBS (Questionnaire DSM-III criteria)	8.0	Mental health, anxiety, depression, substance dependence.	Psychological, health behavior
<b>Tsai et al., 2014</b>	EMR cohort (NHIRD/LHID2005)  Taiwan	46025	53.3  56 <sup>b</sup>	CFS (ICD-9: 780.71)	4.0	<b>Herpes zoster infection+</b> .	Biological
<b>Tsai et al., 2018<sup>s</sup></b>	EMR cohort (NHIRD/LHID2000)  Taiwan	86016	52.2  45.5 (17.2)	CFS (ICD-9: 780.71)	12.0	<b>Burn injury+, gender+</b> (female), <b>age+, comorbidities+</b> ( <b>diabetes+</b> , obesity, renal disease, rheumatoid arthritis, HIV, malignancy, <b>depression+</b> , <b>anxiety+</b> , <b>sleep disorder+</b> , and irritable bowel syndrome)	Biological, psychological, contextual
<b>Tsai et al., 2019<sup>s</sup></b>	EMR cohort (NHIRD/LHID2000)  Taiwan	13080	48.0  ≥ 20 <sup>b</sup>	CFS (ICD-9: 780.71)	8.0	<b>Psoriasis+</b> (only mild psoriasis), gender, <b>age+</b> , diabetes, <b>depression+</b> , <b>anxiety+</b> , <b>sleep disorder+</b> , <b>renal disease+</b> .	Biological, psychological, contextual
<b>Uhlig et al., 2018</b>	Prospective study (HUNT)  Norway	13429	59.3  Non-exposed: 43.4 (12.2), exposed: 44.5 (12.2) <sup>b</sup>	Chronic (widespread) musculoskeletal complaints (Self-report, partial ACR criteria for fibromyalgia)	11.0	<b>Insomnia+</b> .	Psychological
<b>Vandenkerkhof et al., 2011</b>	Birth cohort (British birth cohort)  UK	8572	50.9  45	Chronic widespread pain (Self-report)	12.0	<b>Fruit/vegetable consumption+, fatty food+, chips+, alcohol+, physical activity+, employment+, physical exertion at work+, smoking+, BMI+, marital status+, social class+</b> .	Biological, contextual, health behavior
<b>Varinen et al., 2019</b>	Retrospective study (HeSSup)  Finland	11409	65.7  20-54 <sup>b</sup>	Fibromyalgia (self-report)	10.0	<b>Bullying+</b> (only severe bullying), <b>age+, gender+</b> (female), <b>education-, marital status-, depression+</b> .	Psychological, interpersonal, contextual
<b>Viner et al., 2004</b>	Birth cohort (BGS70)  UK	11266	62.8  30	CFS/ME (self-report)	20.0, 36.0	Gender+ (female), Childhood: <b>father professional/managerial occupation+</b> , mother education, ethnicity, birth weight, birth order, <b>longstanding medical condition+</b> , atopy, obesity, <b>leisure time sports-</b> , school sports, school missed due to health, high abilities, significant illness in parent, behavioral problems, malaise, self-esteem, adolescent GHQ, Adulthood: <b>malaise+</b> , professional/managerial occupation.	Biological, psychological, contextual, health behavior
<b>Waehrens et al., 2018</b>	EMR cohort  Sweden	1963685	48.6  18-38	IBS (ICD-8 564.19, ICD-9 564B, ICD-10 K57)	20.0	<b>Gender+</b> (female), <b>birth year-, fetal growth-, gestational age-, birthweight-, birth length-, multiple birth status, birth order+, maternal age at delivery+/-, maternal marital status-</b> (divorced/widowed), <b>maternal education-, paternal</b>	Biological, interpersonal, contextual

						<b>education-, caesarean+, parental history of IBS+, paternal history of anxiety+, paternal history of depression+.</b>	
<b>Wang et al., 2017</b>	NCC cohort (NHIRD/LHID2000)  Taiwan	173150	51.7  52.3 (15.8) - 52.5 (15.6) (non-GERD - GERD) <sup>b</sup>	Fibromyalgia (FM ICD-9 729.0, 3x within 3 months)	12.0	<b>Gastroesophageal reflux disorder+, gender, age+, diabetes+, hypertension+, hyperlipidemia+, depression, anxiety+, sleep disorder+, alcohol-related illness, stroke+, peptic ulcer disease+, liver cirrhosis, H. pylori infection, NSAIDs use+, proton pump inhibitor.</b>	Biological, psychological, contextual
<b>Wensaas et al., 2011<sup>f</sup></b>	Retrospective study (Bergen)  Norway	1875 (IBS), 1912 (CF)	65.7  36.1	IBS & chronic fatigue (Self-report, Rome III & self-report, ≥ 6 months)	3.0	<b>Giardia+.</b>	Biological
<b>Wensaas et al., 2016</b>	Retrospective study (Bergen)  Norway	4564	66.4  37.4 (19-94)	IBS & functional dyspepsia (Self-report, Rome II criteria)	2.0	<b>Giardia+.</b>	Biological
<b>Wu et al., 2015</b>	EMR cohort (NHIRD)  Taiwan	36456	100.0  25-54 <sup>b</sup>	IBS (ICD-9 564.1, at least 2x)	5.0	<b>Endometriosis+.</b>	Biological
<b>Wu CC et al., 2018</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	26764	100  34.8 (8.5)	Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS) (ICD-9-CM 327.23, 780.51, 780.53, 780.57)	6.0	<b>Endometriosis+.</b>	Biological
<b>Yang et al., 2015</b>	EMR cohort (NHIRD)  Taiwan	212790	56.5  47	CFS (ICD-9: 780.71)	5.3	<b>Atopy+.</b>	Biological
<b>Yang CY et al., 2020</b>	EMR cohort (NHIRD/LHID)  Taiwan	18472	48.3  >20 yrs <sup>b</sup>	IBS (ICD-9-CM: code 564.0)	10.0	<b>Appendectomy+, gender+, age group+, diabetes+, hypertension+, hyperlipidemia+, obesity+, interstitial cystitis+, fibromyalgia+, gastroesophageal reflux disease+, diarrhea+, urinary stones+, asthma+.</b>	Biological, contextual
<b>Yang TY et al., 2022</b>	EMR cohort (NHIRD/LHID2000)  Taiwan	38329	32.1  60.5 (18.3)	CFS (ICD-9-CM: 780.71)	12.0	<b>Mycobacterium tuberculosis infection+, age group+, sex, diabetes+, obesity, renal disease+, rheumatoid arthritis, HIV, malignancy, inflammatory bowel disease+.</b>	Biological, contextual.

<sup>a</sup> Risk assessment score rang, poor, fair, good.

<sup>b</sup> Age at baseline (age at outcome unknown).

+ Significant at < .05, positive relation.

- Significant at < .05, negative relation.

+/- Significant at < .05, U-curve relation.