







REVIEW ARTICLE

Obstetrics

Prevalence of depression and anxiety in women with pelvic floor dysfunctions: A systematic review and meta-analysis

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Abstract

Background: Female pelvic floor dysfunction (PFD) is a common condition affecting the emotional well-being of women.

Objective: To estimate the prevalence of depressive and anxiety symptoms in women with PFD.

Search Strategy, Selection Criteria, Data Collection and Analysis: Following prospective registration (PROSPERO CRD42022362095) we conducted a search of three electronic databases (PubMed, Web of Science and Scopus) from inception to April 2023 without language restriction to capture studies reporting the prevalence of depression/anxiety among women with PFD (chronic pelvic pain [CPP], urinary incontinence [UI], pelvic organ prolapse [POP], and/or fecal incontinence [FI]). Only studies with validated tools were included. Data extraction and study quality assessment were performed by two independent reviewers. Stratifying by type of PFD, rates of depression and anxiety were pooled using random effects model computing 95% confidence interval (CI) and assessing heterogeneity using the I^2 statistic. Funnel plots were used to detect potential reporting biases and small-study effects.

Main Results: The search yielded 767 articles, from which 54 studies containing 632 605 women were included. All the studies were high quality. The prevalence of depression was: CPP 26.8% (95% CI: 19.2–34.4, $I^2=98.7\%$; 12 studies, 4798 participants with 491 cases; Egger's P value=0.009); UI 26.3% (95% CI: 19.4–33.2, $I^2=99.9\%$; 26 studies, a total of 346 114 participants with 25 050 cases; Egger's P value=0.944); POP 34.9% (95% CI: 24.3–45.6, $I^2=68\%$; three studies, 297 participants with 104 cases; Egger's P value=0.973); and FI 25.3% (95% CI: 0.68–49.9, $I^2=99.7\%$; six studies, 14 663 participants with 1773 cases; Egger's P value=0.780). The prevalence of anxiety was: CPP 29.5% (95% CI: 16.3–42.7, $I^2=97.7\%$; nine studies, 2483 participants with 349 cases; Egger's P value=0.001); UI 46.91% (95% CI: 39.1–54.6, $I^2=99.6\%$; 11 studies, 198 491 participants with 40 058 cases; Egger's P value=0.337); and POP

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28% (95% CI: 13.6–42.4, $I^2=89\%$; three studies with 355 participants with 90 cases; Egger's P value = 0.306).

Conclusion: The prevalence of mental health illness was variable in the different types of PFDs. This meta-analysis helps quantify the burden of depression and anxiety in PFD and will help inform the policies regarding screening of emotional well-being by healthcare professionals engaged in care of women with PFD.

KEYWORDS

anxiety, depression, fecal incontinence, pelvic floor disorder, pelvic organ prolapse, pelvic pain, urinary incontinence, women

1 | INTRODUCTION

Mental health is an essential component of well-being and quality of life.¹ According to the WHO, one in eight people worldwide suffers from a mental disorder, with depression and anxiety being the most prevalent conditions.² Over the course of life, it is estimated that approximately 17% and 29% of people, particularly women, suffer depression and anxiety respectively.³ Both disorders are considered a major public health problem because of the disability and morbidity associated with them.^{2,4} The etiology of female mental health disorders is multifactorial, including family history,⁵ exposure to stress, traumatic experiences,⁶ unfavorable socioeconomic conditions, lack of sleep,⁷ and presence of medical comorbidities such as pelvic floor disorders (PFD).^{8–10} There is a link between PFD and the worsening of mental health conditions.¹¹ Female PFD includes a range of different and often overlapping symptoms classified within the diagnoses of chronic pelvic pain (CPP), urinary incontinence (UI), pelvic organ prolapse (POP), and/or fecal incontinence (FI) syndromes.^{12–14}

In the association between PFD and mental health, the magnitude of prevalence of depression and anxiety varies widely, ranging between 20% and 71%,^{15–17} but there is a lack of formal quantification. This variability could be explained by factors such as study design and quality features, but the exploration of reasons for heterogeneity remains elusive. A comprehensive evidence synthesis of the occurrence of depression and anxiety within PFD has not been conducted. Therefore, a systematic review with meta-analysis could provide valuable insight into the extent and diversity of mental health issues in PFD, ultimately informing healthcare policies and clinical approaches. This study aimed to estimate the worldwide overall prevalence rate of depression and anxiety in women with PFD through an evidence synthesis.

2 | MATERIALS AND METHODS

This systematic review was conducted after prospective registration (PROSPERO ID: CRD42022362095) and reported in accordance with the PRISMA guidelines.¹⁸

2.1 | Literature search and selection

A systematic search was conducted in three databases (PubMed, Web of Science [WOS], and Scopus) looking for citations of studies that reported depression and anxiety prevalence data in women with PFD from inception to April 2023, without language restriction. The search strategy incorporated medical subject headings (MeSH), free-text terms and word variants in the keyword combination (Appendix 1). Additionally, we evaluated the reference lists of the selected articles to identify any relevant citation. Finally, we reached out to the authors of pivotal citations via email to enquire about any studies within their knowledge pertaining to the subject matter. All citations found were exported to Refworks bibliographic manager where duplicates were removed. The inclusion criteria captured observational studies in women with PFD diagnosis (CPP, UI, POP and FI) undertaking measurement of the prevalence of depression and anxiety. We excluded studies conducted in males, if specific tools to assess depression and anxiety were not deployed or if the tools were unvalidated or if the prevalence was not calculable in the study sample from the data reported. Two independent reviewers (RAPM and SMV) independently assessed the titles and abstract for relevant citations. The full-text versions were obtained and read to determine study eligibility. Any disagreement between the two reviewers was arbitrated by a third reviewer.

2.2 | Data extraction and study quality assessment

The key characteristics of selected studies were extracted independently by both reviewers (RAPM and SMV), using a predefined form designed to capture authors, year of publication, country and setting, design of the study, sample size, women characteristics, and assessment method. For the quality assessment of the studies included, the two reviewers (RAPM and SMV) separately assessed the risk of bias using a tool created specifically to evaluate PFD prevalence studies based on previously published systematic review and guidelines (Appendix 2).^{19,20} In cases of disagreement, consensus was reached through arbitration by a third reviewer (JMMG). We generated

separate strata within studies if they included women from more than one country. We considered a study to be of high quality in terms of estimating representative and unbiased depression and anxiety rates if it met at least five of the seven criteria. Inter-reviewer agreement for data extraction regarding quality was assessed using the Kappa index to determine reliability.²¹

2.3 | Data synthesis

Data for depression and anxiety, extracted separately from each included study among women with PFD, were used to estimate individual prevalence rates along with 95% confidence intervals (CI). Meta-analyses were conducted using a random effects model. Heterogeneity among studies was assessed using Q test and I^2 statistic, and was graphically expressed in forest plots. We assumed that an $I^2 > 50\%$ indicated substantial heterogeneity and $I^2 > 75\%$ considerable heterogeneity.²² We performed a subgroup analysis based on relevant variables (quality of the study, type of assessment of the outcome, diagnostic scale, year of publication and type of population included) to identify potential sources of heterogeneity and to analyze potential differences in the estimates according to subgroups. We used funnel plots to detect potential reporting biases and small-study effects. The Egger test was carried

out to assess asymmetry statistically per each condition.²³ All statistical analyses were conducted using Stata (15.0; StataCorp LP, College Station, Texas, USA).

3 | RESULTS

3.1 | Study selection and quality assessment

The electronic search yielded a total of 767 citations. [Figure 1](#) shows the flow diagram of the selection process. After removing duplicates, we evaluated 733 titles and abstracts. Among these, 299 were deemed potentially relevant, and their full articles were obtained following exclusion based on title and abstract or study sample. After careful review, we excluded 180 articles which did not meet our inclusion criteria. From the remaining 119 articles, we excluded 65 full-text articles for reasons such as insufficient data to calculate specific prevalence or outcomes were present (anxiety or depression) but not directly related to PFD in women, even the instrument to measure anxiety/depression was specific for this purpose or a PFD existed. The list of excluded full-text articles and a brief explanation for the exclusion is provided in [Appendix 3](#).

Finally, 54 articles met the inclusion criteria and presented data on 632 605 participants, of whom 29 844 had a positive depression

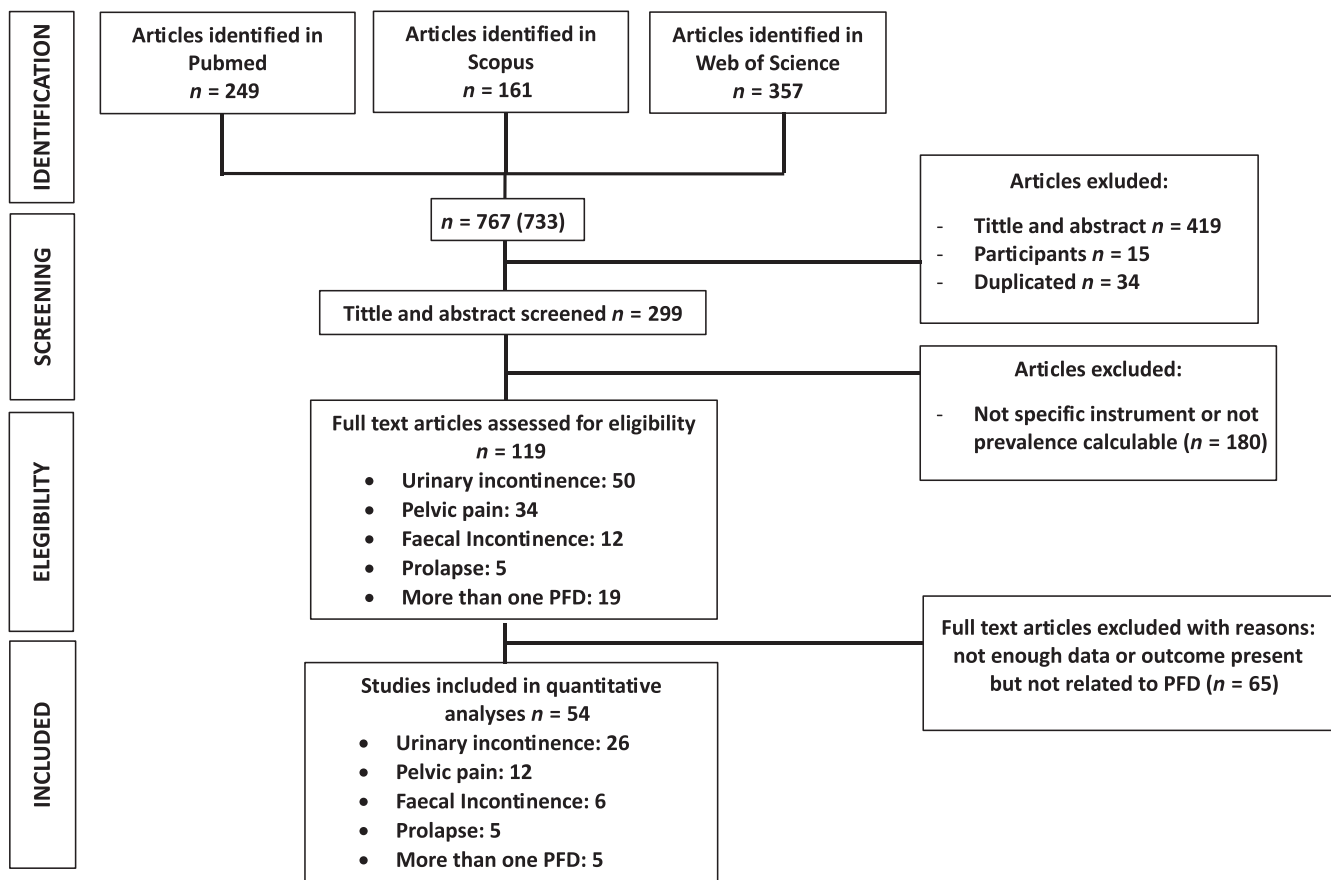


FIGURE 1 Selection of studies in the meta-analysis on the prevalence of depression and anxiety in pelvic floor dysfunction.

instrument and 40507 had a positive anxiety instrument. The studies included were all published in peer-reviewed academic journals from 2000 to 2023. Most of them were conducted in the USA,^{24–40} followed by Europe^{41–51} and Asia,^{52–58} among others. All of the studies used validated instruments to assess anxiety and depression being the most frequently used the hospital anxiety and depression scale (HADS-11)^{35,45,49,50,55,59–63} and patient health questionnaire (PHQ-9).^{24,25,27,29,33,34,41,42,53,64,65}

The HADS is a 14-item self-report measure of anxiety and depression in nonpsychiatric outpatients. which consists of seven items each for anxiety and depression, scored on a 4-point Likert scale (0–3). The maximum subscale score is 21 for both conditions.⁶⁶ The PHQ-9, a nine-item depression assessment, diagnoses major depression if a patient has experienced at least five symptoms for more than half of the previous 2 weeks, together with depressed mood or loss of interest. For other types of depression, 2–4 symptoms must be present on more than half of the days in the previous 2 weeks, including at least one major symptom. Expressing thoughts of self-harm or wanting to die is considered severe. The PHQ-9 score ranges from 0 to 27, measuring the severity of depression on a scale from 0 (not at all) to 3 (almost every day) for each of the nine questions.⁶⁷

The main characteristics of the selected studies are summarized in Table 1.

3.2 | Quality appraisal

The results of the quality appraisal are shown in Appendix 2.⁶⁸ All the studies included reached high quality (4 out of 7 points). A common critical point was item two, as 32 (59.3%) of the studies undertook the research without a priori sample size estimation. All of the studies used well developed instruments to measure depression and anxiety. Cohen's Kappa coefficient (κ) was 0.658 indicating a good inter-rater reliability between the two reviewers concerning study quality assessment.

3.3 | Prevalence of depression

Figure 2 shows the pooled effect size from PFD conditions on depressive prevalence, along with individual effects from each study. The overall range of reported prevalence data of depression was between 3.4% and 86.0% in the individually study results. According to each condition, for CPP, data from 12 studies comprising a total of 4798 participants (491 with depression) showed a prevalence rate of depression of 26.8% (95% CI: 19.2–34.4), with high heterogeneity ($I^2=98.7%$). For UI, data from 26 studies comprising a total of 346 114 participants (25 050 with depression), the prevalence of depression was 26.3% (95% CI: 19.4–33.2), with high heterogeneity ($I^2=99.9%$). According to the POP, based on data from three studies with 297 participants (104 with depression) the prevalence of depression was 34.9% (95% CI: 24.3–45.6), with moderate heterogeneity ($I^2=68%$). For FI, depression prevalence was 25.3% (95% CI: 0.7–49.9) across

six studies with 14 663 participants, 1773 depressed, with high heterogeneity ($I^2=99.7%$). Finally, for more than one condition (not shown), depression rate was 46.4% (95% CI: 29.4–63.3), showing a heterogeneity $I^2=98.4%$. The results of the subgroup analyses are presented in Appendix 4. Briefly, no relevant sources of heterogeneity were found, although important differences in the estimates were shown according to the diagnostic scale (ranging from 8.0% of depression in the studies using GSD to 56.1% in the studies using BDI) and to the population (22.8% in women from general population and 33.8% of depression in women that consulted because of symptoms or other concomitant pathologies).

Funnel plots and values of Egger's test for the association between each condition and depression prevalence are shown in Appendix 5. For CPP the Egger's P value was $P=0.009$. For UI Egger's P value was $P=0.944$. For the POP, the Egger's P value was 0.973, for the FI Egger's P value was $P=0.780$, and for more than one condition (not showed) the Egger's value was $P=0.630$.

3.4 | Prevalence of anxiety

Figure 3 illustrates the combined impact of PFD conditions on anxiety prevalence, as well as the distinct effects of each study. The reported prevalence data of anxiety by PFD condition ranged from 3.5% to 66.0% in the individually study results. According to each condition, for CPP, data from nine studies comprising 2483 participants, 349 subjects presented anxiety, the prevalence rate of anxiety was 29.5% (95% CI: 16.3–42.7), with high heterogeneity ($I^2=97.7%$). For UI, based on data from 11 studies with 198 491 participants, 40 058 reported anxiety and the prevalence of anxiety was 46.9% (95% CI: 39.1–54.6) with high heterogeneity ($I^2=99.6%$). According to the POP, based on data from three studies with 355 participants, including 90 with anxiety, the prevalence of anxiety was 28% (95% CI: 13.6–42.4) with high heterogeneity ($I^2=89.0%$). The results of the subgroup analyses showed in Appendix 4. Again, no relevant sources of heterogeneity were found, although some differences in the estimates were shown according to the diagnostic scale (ranging from 22.9% of anxiety in the studies using PHQ-9 to 41.21% in the studies using HADS) and to the population, showing higher prevalence of anxiety for all conditions in women that consulted because of symptoms or other concomitant pathologies. The studies with higher quality, according to our assessment, showed higher prevalence of depression for all conditions.

The analysis of publication bias based on Egger's test outcomes, across studies detailing anxiety concerning condition is shown in Appendix 6. For CPP the Egger's P value was $P=0.001$. For UI Egger's P value was $P=0.337$. For the POP, the Egger's P value was 0.306.

4 | DISCUSSION

The present meta-analysis provides precise prevalence estimates regarding the presence of anxiety and depression in female PFDs. This

TABLE 1 Characteristics of the selected studies in the meta-analysis on the prevalence of depression and anxiety in pelvic floor dysfunction.

Author	Year	Country	Time of sample recruitment	Anxiety or depression instrument	Assessor (who)	Sample size
Ai et al. ⁵³	2018	China	July 2016 and March 2017	PHQ-9	Self-administer	177
Ai et al. ⁵⁴	2018	China	July 2016 and March 2017	GAD-7	Self-administer	177
Ai et al. ⁵²	2018	China	May 2016 to July 2017	GAD-7	Self-administer	102
Drage et al. ⁸⁸	2021	Australia	June and September 2019	K-10	Self-administer	76
Ghetti et al. ²⁴	2015	USA	NI	PHQ-9	Focus groups and phone interviews	44
Andy et al. ²⁵	2016	USA	2005–2010	PHQ-9	Self-administer	119
Berger et al. ²⁶	2013	USA	NI	Health history	Phone interviews	2814
Melville et al. ²⁷	2005	USA	2002	PHQ-9	Self-administer	249
Tamanini et al. ⁸⁹	2022	Multicentric (Argentina, Barbados, Brazil, Chile, Cuba, Mexico and Uruguay)	2006	GDS	Self-administer	864
Goode et al. ²⁸	2005	USA	1999–2001	GDS	Self-administer	500
Nieto et al. ²⁹	2015	USA	2005–2010	PHQ-9	Self-administer and phone interviews	7039
As-Sanie et al. ⁵⁹	2021	USA	December 2015 to June 2018	HADS	Self-administer	176
Ayorinde et al. ⁴¹	2016	UK	2013	PHQ-9	Self-administer	2088
Bruenahl et al. ⁴²	2017	Germany	October 2012 and February 2016	PHQ-15, PHQ-9 y GAD-7	Self-administer	168
de Oliveira Goncalves da Silva et al. ⁹⁰	2011	Brazil	April 2008 and March 2009	Health history	Self-administer and interviews	1278
Govind et al. ⁹¹	2020	NI	January 2017 to December 2017	PASS-20 y PHQ-8	Self-administer	79
Han et al. ⁵⁵	2017	China	March 2014 to March 2016	HADS	Self-administer	241
Li et al. ³⁰	2023	USA	October 2017 and October 2020	GAD-7	Self-administer	200
Lorençatto et al. ⁹²	2006	Brazil	NI	BDI	Self-administer	100
Siqueira-Campos et al. ⁶⁰	2019	Brazil	October 2014 and February 2016	HADS	Self-administer	200
Osorio et al. ⁹³	2016	NI	2014	DSM-IV	Self-administer	100
Trutnovsky et al. ⁴⁴	2019	Austria	January 2010 and December 2015	Health history	Interviews	127
Vista et al. ⁴⁵	2011	Norway	NI	HADS	Self-administer and interviews	91
Brown et al. ⁹⁴	2000	Australia	September 1993	EPSP	Interviews	1331
Buchsbaum et al. ³¹	2002	USA (NY)	NI	Health history	Self-administer and interviews	149
Cayan et al. ⁹⁵	2016	Turkey	NI	BDI	Self-administer and interviews	1217

(Continues)

TABLE 1 (Continued)

Author	Year	Country	Time of sample recruitment	Anxiety or depression instrument	Assessor (who)	Sample size
Coyne et al. ⁶¹	2012	Multicentric (Sweden, UK and USA)	2007–2008	HADS	Internet survey	15860
Concepcion et al. ⁹⁶	2018	Australia	2006–2009	Health history	Self-administer and phone interviews	59060
Coyne et al. ⁹⁷	2011	UK, Sweden, USA	2001–2006	HADS	Self-administer and phone interviews	13499
da Silva et al. ⁶²	2021	Brazil	July to August 2020	HADS	Internet interview and self-administer	77
Damian et al. ⁴⁶	2013	Spain	June 2008 to June 2009	EURO-D	Internet interview and self-administer	274
Fritel et al. ⁹⁸	2016	France	2003–2006	EPDS	Internet interview and self-administer	1226
Kaur et al. ⁶⁴	2021	NI	NI	PHQ-9 and DSM-IV	Self-administer and phone interviews	100
Kopp et al. ⁶⁵	2019	África	1 January 2012 and 31 July 2014	PHQ-9	Home visits, interviews and self-administer	290
Lee et al. ⁵⁶	2021	Korea	NI	GSD	Self-administer and interviews	3000
Lee et al. ⁵⁷	2008	Korea	April and June 2005	Self-reported	Self-administer and interviews	13484
Legendre et al. ⁴⁸	2015	France	1990–2008	CES-D	Self-administer and interviews	3828
Legendre et al. ⁴⁷	2020	France	2000 and 2008	CES-D	Self-administer and interviews	2115
Melott et al. ³²	2018	USA	From March 2012 to March 2015	BDI and BAI	Self-administer and interviews	274
Melville et al. ³³	2005	USA	2002	PHQ-9	Self-administer and interviews	3536
Milsom et al. ⁶³	2012	UK, Sweden, and USA	2002–2005	HADS	Self-administer and phone interviews	10584
Patel et al. ³⁴	2022	USA	2015–2018	PHQ-9 and WG-ES	Phone interviews, internet and personal interviews	5006
Perry et al. ⁴⁹	2006	UK	NI	HADS	Self-administer and phone interviews	9596
Reis et al. ⁹⁹	2021	Brazil	December 2018 and January 2020	DASS-21	Self-administer and phone interviews	234
Sexton et al. ³⁵	2011	USA	NI	HADS	Self-administer and phone interviews	2877
Steibliene et al. ⁵⁰	2020	Lithuania	November 2014 and September 2015	HADS	Self-administer and phone interviews	177
Townsend et al. ³⁶	2014	USA	2004	CES-D	Self-administer and phone interviews	72095
van der Vaart et al. ⁵¹	2007	Netherlands	From 1999 and 2000	CES-D	Self-administer and phone interviews	2042
Vigod et al. ³⁷	2006	USA	September 2000 and November 2001	CIDI-SF	Self-administer and phone interviews	69003
Larouche et al. ³⁸	2020	USA	NC	BDI and BAI	Self-administer and phone interviews	60
Wu et al. ³⁹	2020	USA	2008	Health history	Self-administer and phone interviews	64396
Mazi et al. ⁵⁸	2019	Saudi Arabia	October 2015 to March 2016	BDI	Self-administer and phone interviews	200

TABLE 1 (Continued)

Author	Year	Country	Time of sample recruitment	Anxiety or depression instrument	Assessor (who)	Sample size
Snyder et al. ⁴⁰	2022	USA	May and June 2021	EPDS	Self-administer and phone interviews	383
Zeleke et al. ¹⁵	2013	Ethiopia	NI	BDI	Self-administer and phone interviews	306

Abbreviations: BAI, Beck anxiety inventory; BDI, Beck depression inventory; CIDI-SF, Composite International Diagnostic Interview; DSM, Diagnostic and Statistical Manual of Mental Disorders; DASS-21, depression anxiety stress scales; EPDS, Edinburgh postnatal depression scale; GAD-7, generalized anxiety scale; GDS, geriatric depression scale; HADS, hospital anxiety and depression scale; K-10, Kessler psychological distress scale; NI, no information provided; PAAS-20, pain anxiety symptoms scale-2; PHQ, patient health questionnaire.

review covers all the main pelvic floor conditions: chronic pelvic pain (CPP), urinary incontinence (UI), pelvic organ prolapse (POP), and/or fecal incontinence (FI). Our analysis showed that depression affects at least two out of 10 women with FI, IU, and POP. However, the rate is lower for CPP. In the case of anxiety and PFD, the prevalence rate is almost half the population for those with IU. The rate of anxiety co-occurring with other pelvic floor disorders, including CPP, POP, and other dysfunctions, is lower. Pelvic organ prolapse stands as the second most prevalent condition among women, with over 20% indicating anxiety.

The main strength of this review lies in its comprehensive approach, evaluating the rates of depression and anxiety in women with PFDs worldwide. A detailed and exhaustive literature search was conducted without language restrictions, including all relevant studies with validated measurement tools. The review was conducted using a prospective protocol and major subgroups were pre-specified to explore potential sources of heterogeneity in the data, with a rigorous methodology and reported it transparently.^{20,69} All the questionnaires were previously validated.⁷⁰⁻⁷⁹ The quality of each of the included articles was high, adding to the validity of the review's findings. As a possible limitation we acknowledged that the measurement tools of anxiety and depression in the context of PFD varied widely among the studies included in our analysis. However, to address this variability in measurement tools, those articles that documented the presence of anxiety and/or depression in women were taken into account by reviewing the clinical history and using specific scales to measure these mental health disorders minimizing the impact of heterogeneity. Other researchers previously used other unspecific tools such as^{80,81} quality of life scale (QOL),⁸² health questionnaire SF-3684 or health questionnaire SF-12,⁸³ which may lead to unappropriated interpretations of findings, conversely to our approach which provides more accurate data.

In 2021, a report by the National Institute for Health and Care Excellence (NICE) confirmed that women with PFD have higher rates of clinically diagnosed depression and anxiety. However, the report had some limitations related to small studies or mixed evidence, in addition to the interest in reaching practice standard,^{16,84-86} highlights the significance of PFD as a prevalent issue in women's health but scarcely studied as a complex problem including all of the main dysfunctions. This is the first systematic review and meta-analysis to consider all the most common PFDs with a global perspective, to our knowledge. Further research is necessary to improve the quality of treatment and ultimately the lives of women, considering the link between PFDs and mental health in women.⁸⁷

We identified high heterogeneity both for depression and anxiety across the selected studies, despite a thorough subgroup analysis. No clear source of heterogeneity was found, although the estimates varied across the strata of diagnostic scale and population (symptomatic or not). These data suggest that future studies should homogenize the preferred used diagnostic tool for both depression and anxiety, and that women who suffer from symptoms because of their gynecologic conditions tend to show higher risk of depression and anxiety. It is possible that the great differences in prevalence

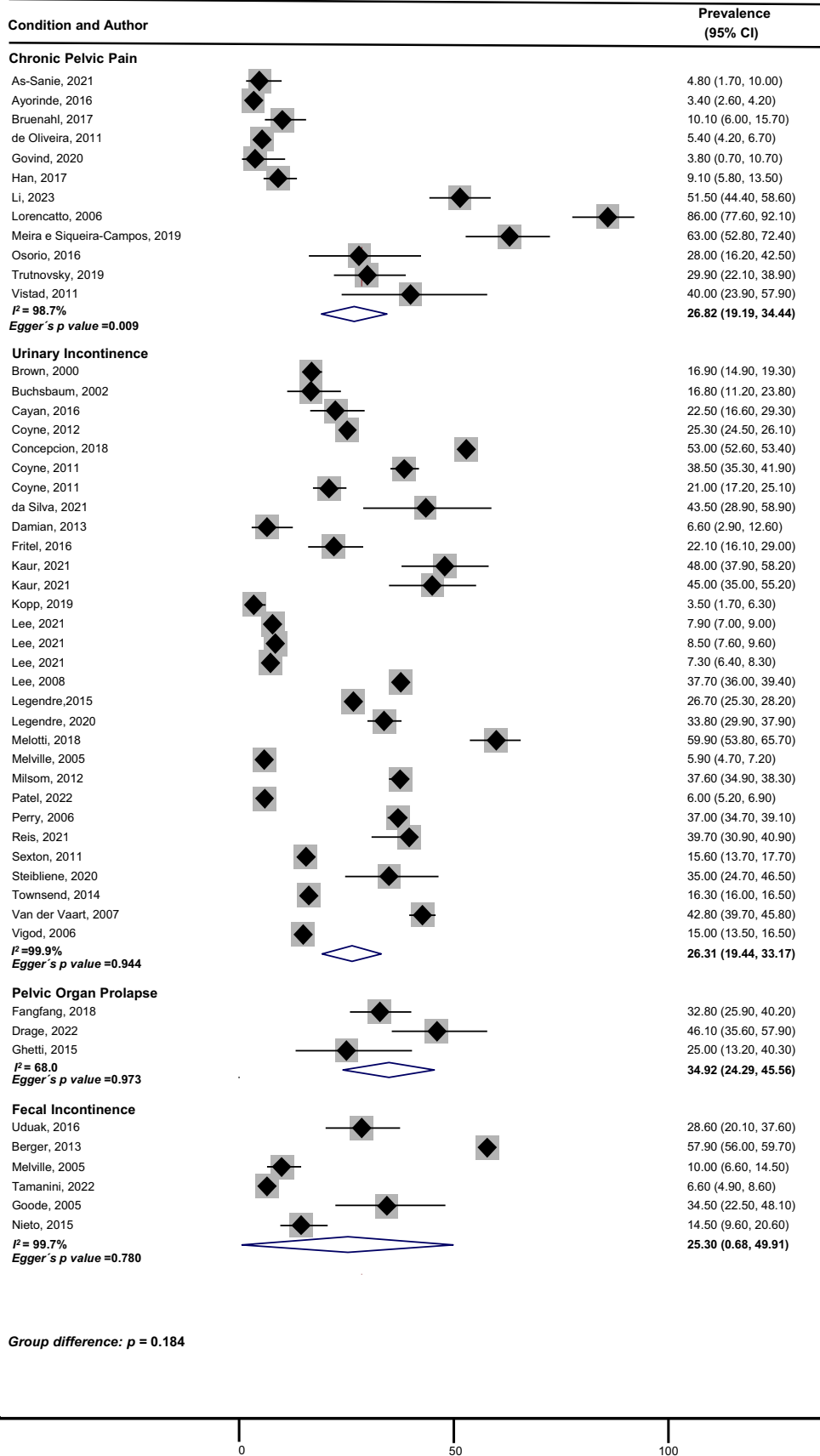


FIGURE 2 Prevalence rate and 95% confidence interval (CI) of depression in women with pelvic floor dysfunction diagnosis.

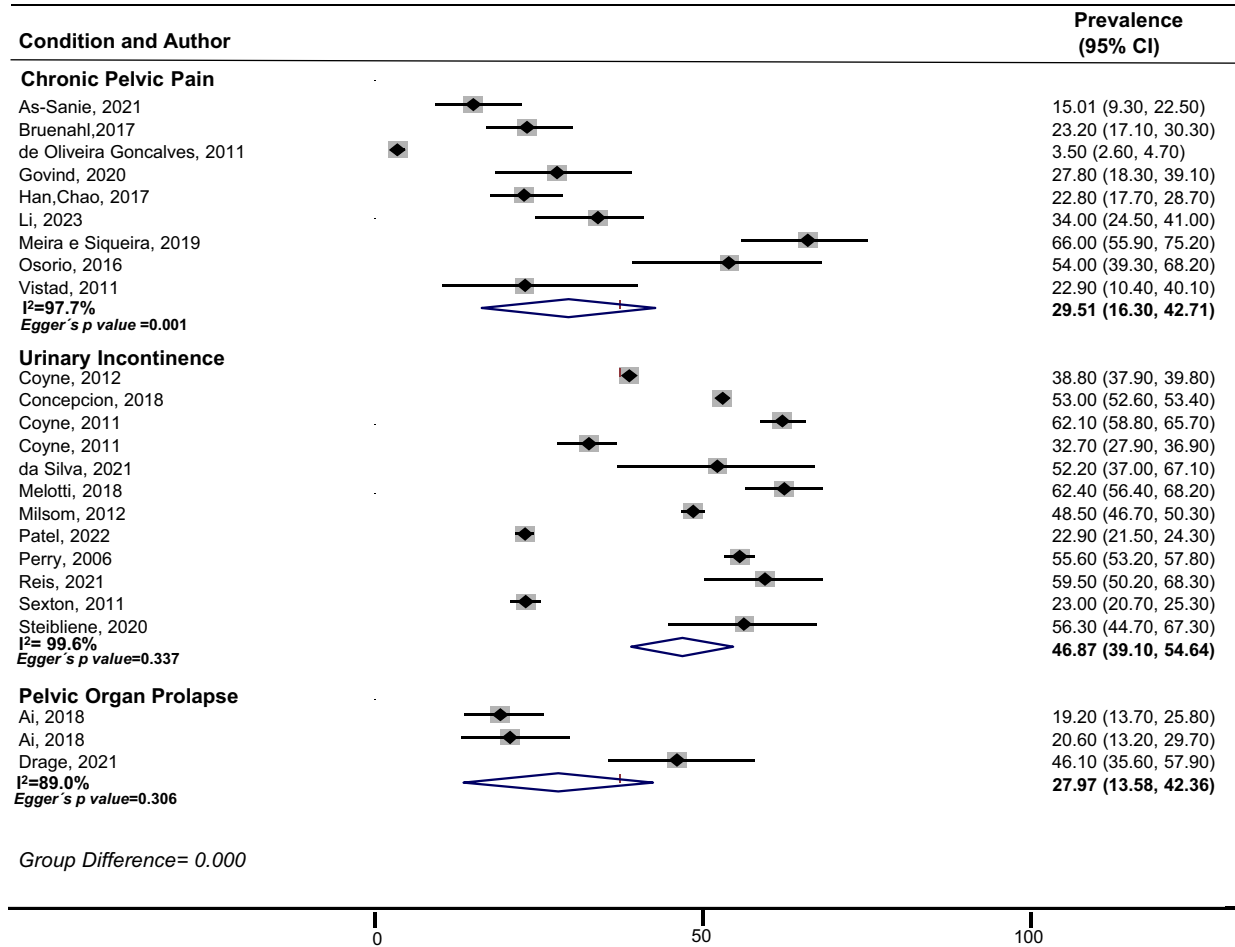


FIGURE 3 Prevalence overall rate and 95% confidence interval (CI) of anxiety in women with pelvic floor dysfunction diagnosis.

shown across the studies might hide baseline differences according to healthcare system, social, cultural, or spiritual factors worldwide. Future specific studies could contribute to identifying the main causes that could explain these differences. In any case, the prevalence of both depression and anxiety in all the conditions analyses (and in all subgroups) were strikingly higher than in the general population, suggesting that these women should be especially considered for preventive measures regarding mental health.

The findings of this meta-analysis have significant implications for healthcare professionals. It highlights the close relationship between pelvic floor disorders and anxiety/depression, underlining the need for comprehensive medical care that considers the physical and emotional dimension. Practitioners should be aware of this connection when treating women with PFD, adapting therapeutic approaches according to individual needs. Non-professional education about those associations seems relevant, encouraging help-seeking of those women affected. Additionally, this study may motivate additional research to better understand how these conditions are related, which could lead to more effective interventions in the future. However, the paucity and great variability of scientific data preclude an accurate understanding of the magnitude of the relationship between them.

In conclusion, the prevalence of anxiety and depression in women suffering from PFD is high based on our evidence synthesis of studies that deployed validated measurement tools. This meta-analysis helps quantify the burden of mental ill-health in PFD. It will help inform the public health policies regarding screening of emotional well-being by healthcare professionals engaged in care of women with PFD.

AUTHOR CONTRIBUTIONS

Rocio Adriana Peinado Molina: Conceptualization, methodology, validation, investigation, resources, data curation, writing—original draft, writing—review and editing, visualization. Sergio Martínez Vázquez: Conceptualization, methodology, validation, investigation, resources, data curation, writing—original draft, writing—review and editing, visualization. Juan Miguel Martínez Galiano: Conceptualization, methodology, validation, investigation, resources, data curation, writing—original draft, writing—review and editing, visualization, supervision. Khalid Saeed Khan: Conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing—original draft, writing—review and editing, visualization and supervision. Mario Rivera Izquierdo: Methodology, software, and formal

analysis. Naomi Cano-Ibáñez: Conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing—original draft, writing—review and editing, visualization and supervision.

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CONFLICT OF INTEREST STATEMENT


The authors declare no competing interest.


DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX 1

SEARCH STRATEGY FROM EACH DATABASE FOR THE META-ANALYSES OF PREVALENCE OF DEPRESSION AND ANXIETY IN PELVIC FLOOR DYSFUNCTION

PUBMED	((Pelvic Floor Disorders OR Urinary incontinence OR fecal incontinence OR pelvic pain OR pelvic organ prolapse) AND (Women OR female)) AND (mental health OR depression OR depressive disorder OR anxiety OR anxiety disorders OR mental disorders)) AND (prevalence) Filters: Books and Documents, Meta-Analysis, Review, Systematic Review, from 1000/1/1–2023/3/1
SCOPUS	*TITLE-ABS-KEY (((Pelvic Floor Disorders OR Urinary incontinence OR fecal incontinence OR pelvic pain OR pelvic organ prolapse) AND TITLE-ABS-KEY (Women OR female)) AND TITLE-ABS-KEY (mental health OR depression OR depressive disorder OR anxiety OR anxiety disorders OR mental disorders)) AND TITLE-ABS-KEY (prevalence) AND NOT TITLE-ABS-KEY (trial) from 1000/1/1–2023/3/1 (Pelvic AND floor AND disorders OR urinary AND incontinence OR fecal AND incontinence OR pelvic AND pain OR pelvic AND organ AND prolapse) AND (women OR female) AND (mental AND health OR depression OR depressive AND disorder OR anxiety OR anxiety AND disorders OR mental AND disorders) AND (prevalence)
WoS	((AB=(Pelvic Floor Disorders OR Urinary incontinence OR fecal incontinence OR pelvic pain OR pelvic organ prolapse)) AND AB=(Women OR female)) AND AB=(mental health OR depression OR depressive disorder OR anxiety OR anxiety disorders OR mental disorders)) AND AB=(prevalence) from 1000/1/1–2023/3/1

APPENDIX 2

QUALITY APPRAISAL OF INCLUDED STUDIES IN THE META-ANALYSES OF PREVALENCE OF DEPRESSION AND ANXIETY IN PELVIC FLOOR DYSFUNCTION

Author (year)	Prospective design	A priori sample size estimation	Appropriate methods to capture a representative sample	Development of depression/anxiety subsequent to PFD	Well-developed, detailed depression/anxiety instrument	Instrument adapted for local population	Response rate over 90%	Overall quality (high/low) ^a
Fangfang et al. (2018) ⁵³	Y	N	Y	Y	Y	Y	Y	H
Ai et al. (2018) ⁵⁴	Y	N	Y	Y	Y	Y	Y	H
Ai et al. (2018) ⁵²	Y	N	Y	Y	Y	Y	Y	H
Drage et al. (2022) ⁸⁸	Y	Y	Y	Y	Y	N	N	H
Ghetti et al. (2015) ²⁴	Y	N	Y	Y	Y	Y	Y	H
Andy et al. (2016) ²⁵	Y	Y	Y	Y	Y	Y	N	H
Berger et al. (2013) ²⁶	Y	Y	Y	N	Y	Y	N	H
Melville et al. (2005) ²⁷	Y	Y	Y	Y	Y	Y	N	H
Tamanini et al. (2022) ⁸⁹	Y	Y	Y	Y	Y	Y	N	H
Goode et al. (2005) ²⁸	Y	Y	N	Y	Y	Y	N	H
Nieto et al. (2015) ²⁹	Y	Y	Y	Y	Y	Y	N	H
As-Sanie et al. (2021) ⁵⁹	Y	N	Y	Y	Y	Y	N	H
Ayorinde et al. (2016) ⁴¹	Y	N	Y	Y	Y	Y	N	H
Bruenahl et al. (2017) ⁴²	Y	Y	Y	Y	Y	Y	Y	H
de Oliveira Goncalves da Silva et al. (2011) ⁹⁰	Y	N	N	N	Y	Y	Y	H
Govind et al. (2020) ⁹¹	Y	N	Y	Y	Y	Y	Y	H
Han et al. (2017) ⁵⁵	Y	N	Y	Y	Y	Y	Y	H
Li et al. (2023) ³⁰	Y	N	Y	Y	Y	Y	Y	H
Lorenatto et al. (2006) ⁹²	Y	Y	Y	Y	Y	Y	Y	H
Siqueira-Campos et al. (2019) ⁶⁰	Y	Y	Y	Y	Y	Y	Y	H
Osorio et al. (2016) ⁹³	Y	N	Y	Y	Y	Y	Y	H
Trutnovsky et al. (2019) ⁴⁴	Y	N	Y	Y	Y	Y	Y	H
Vistad et al. (2011) ⁴⁵	Y	N	Y	Y	Y	Y	N	H
Brown and Lumley (2000) ⁹⁴	Y	Y	Y	Y	Y	Y	N	H
Buchsbaum et al. (2002) ³¹	Y	N	Y	N	Y	Y	N	H
Cayan et al. (2016) ⁹⁵	Y	N	Y	N	Y	Y	Y	H
Coyne et al. (2012) ⁶¹	Y	N	Y	Y	Y	Y	N	H
Concepcion et al. (2018) ⁹⁶	Y	N	Y	Y	Y	Y	N	H
Coyne et al. (2011) ⁹⁷	Y	Y	Y	Y	Y	Y	N	H

APPENDIX 2 (Continued)

Author (year)	Prospective design	A priori sample size estimation	Appropriate methods to capture a representative sample	Development of depression/anxiety subsequent to PFD	Well-developed, detailed depression/anxiety instrument	Instrument adapted for local population	Response rate over 90%	Overall quality (high/low) ^a
da Silva et al. (2021) ⁶²	Y	Y	Y	Y	Y	Y	Y	H
Damian et al. (2013) ⁴⁶	Y	Y	Y	Y	Y	Y	N	H
Fritel et al. (2016) ⁹⁸	Y	N	Y	Y	Y	Y	N	H
Kaur et al. (2021) ⁶⁴	Y	N	Y	Y	Y	Y	Y	H
Kopp et al. (2019) ⁶⁵	Y	N	Y	Y	Y	Y	Y	H
Lee et al. (2021) ⁵⁶	Y	N	Y	Y	Y	Y	N	H
Lee et al. (2008) ⁵⁷	Y	Y	Y	Y	Y	Y	Y	H
Legendre et al. (2015) ⁴⁸	Y	N	Y	Y	Y	Y	Y	H
Legendre et al. (2020) ⁴⁷	Y	N	Y	Y	Y	Y	N	H
Melotti et al. (2018) ³²	Y	N	Y	Y	Y	Y	Y	H
Melville et al. (2005) ³³	Y	N	Y	Y	Y	Y	N	H
Milsom et al. (2012) ⁶³	Y	N	Y	Y	Y	Y	N	H
Patel et al. (2022) ³⁴	Y	Y	Y	Y	Y	N	N	H
Perry et al. (2006) ⁴⁹	Y	N	Y	Y	Y	Y	N	H
Reis et al. (2021) ⁹⁹	Y	Y	Y	Y	Y	Y	Y	H
Sexton et al. (2011) ³⁵	Y	N	Y	Y	Y	Y	N	H
Steibliene et al. (2020) ⁵⁰	Y	Y	Y	Y	Y	Y	N	H
Townsend et al. (2014) ³⁶	Y	Y	Y	Y	Y	Y	N	H
van der Vaart et al. (2007) ⁵¹	Y	N	Y	Y	Y	Y	N	H
Vigod et al. (2006) ³⁷	Y	N	Y	Y	Y	Y	Y	H
Larouche et al. (2020) ³⁸	Y	Y	Y	Y	Y	Y	Y	H
Wu et al. (2020) ³⁹	Y	Y	Y	Y	Y	Y	N	H
Mazi et al. (2019) ⁵⁸	Y	Y	Y	Y	Y	Y	N	H
Snyder et al. (2022) ⁴⁰	Y	N	Y	Y	Y	Y	N	H
Zelege et al. (2013) ¹⁵	Y	N	Y	Y	Y	Y	N	H

Note: Sample size calculation a priori if reported as such. Outcome assessment valid if measurement tool with a reference.

Abbreviations: N, no; PFD, pelvic floor disease; Y, yes.

^aHigh quality = criteria for at least 4 quality items met.

APPENDIX 3

THE LIST OF EXCLUDED FULL-TEXT ARTICLES IN THE META-ANALYSIS ON THE PREVALENCE OF DEPRESSION AND ANXIETY IN PELVIC FLOOR DYSFUNCTION

Author (year)	Title	Exclusion reason
Atarodi et al. (2014)	Fecal incontinence—the hidden scourge of irritable bowel syndrome: a cross-sectional study	Non-specific women's prevalence
Zhou et al. (2022)	Anorectal manometry for the diagnosis of pelvic floor disorders in patients with hypermobility spectrum disorders and hypermobile Ehlers-Danlos syndrome	Non-specific FI prevalence
Bouchoucha et al. (2018)	Clinical and psychological correlates of soiling in adult patients with functional gastrointestinal disorders	Non-specific women's prevalence
Deutsch et al. (2021)	Functional gastrointestinal disorders as predictors of suicidal ideation. An observational study	Non-specific women's prevalence
Shon et al. (2021)	Prevalence and risk factors associated with depressive mood in Korean patients with fecal incontinence	Non-specific women's prevalence
Tilak et al. (2022)	Pelvic floor healing milestones after obstetric anal sphincter injury: a prospective case control feasibility study	Non-specific prevalence
Alizadeh et al. (2019)	Prevalence of and risk factors for genito-pelvic pain/penetration disorder: A population-based study of Iranian women	Non-specific prevalence of chronic pain
Bajalan et al. (2019)	Mental health and primary dysmenorrhea: A systematic review	Systematic review
Beutel et al. (2005)	Chronic pelvic pain of women and its co-morbidity	Non-specific prevalence of chronic pain.
Bergeron et al. (2020)	Vulvodynia	Systematic review
Brasil et al. (2020)	Psychological stress levels in women with endometriosis: systematic review and meta-analysis of observational studies	Systematic review
Casalechi et al. (2021)	Endometriosis and related pelvic pain: association with stress, anxiety and depressive symptoms	Systematic review
Elden et al. (2016)	Predictors and consequences of long-term pregnancy-related pelvic girdle pain: a longitudinal follow-up study	Non-specific prevalence of chronic pain
Geoffrion et al. (2021)	Recreational cannabis use before and after legalization in women with pelvic pain	Non-specific prevalence figure
Ghasemi et al. (2020)	Prevalence, dimensions, and predictor factors of sexual dysfunction in women of Iran Multiple Sclerosis Society: A cross-sectional study	Non-specific chronic pelvic pain
Hartmann et al. (2004)	Quality of life and sexual function after hysterectomy in women with preoperative pain and depression	Non-specific chronic pelvic pain
Jackson et al. (2015)	Prevalence of chronic pain in low-income and middle-income countries: a systematic review and meta-analysis	Systematic review
Kabani et al. (2022)	Endometriosis and COVID-19: A systematic review and meta-analysis	Systematic review
Lee et al. (2021)	Prevalence of bladder pain syndrome-like symptoms: A population-based study in Korea	Non-specific women's prevalence
Lima de Souza Montenegro et al. (2010)	Importance of pelvic muscle tenderness evaluation in women with chronic pelvic pain	Non-specific women's prevalence
Nickel et al. (2015)	Clinical and psychological parameters associated with pain pattern phenotypes in women with interstitial cystitis/bladder pain syndrome	Non-specific prevalence
Ramage et al. (2022)	"Broken"—how identities as women, mothers and partners Are Intertwined with the experience of living with and seeking treatment for pelvic organ prolapse	Qualitative study
Reiter et al. (1998)	Evidence-based management of chronic pelvic pain	Systematic review
Tu et al. (2006)	Prevalence of pelvic musculoskeletal disorders in a female chronic pelvic pain clinic.	Non-specific prevalence
van Barneveld et al. (2021)	Depression, anxiety, and correlating factors in endometriosis: A systematic review and meta-analysis	Systematic review

APPENDIX 3 (Continued)

Author (year)	Title	Exclusion reason
Vieira-Baptista et al. (2014)	Prevalence of vulvodynia and risk factors for the condition in Portugal	Non-specific prevalence
Ryan et al. (2022)	Central sensitization in pelvic pain: A cohort study	Non-specific prevalence
Badreddine et al. (2022)	Impact of urinary incontinence on postpartum sexual function	Non-specific prevalence
Bradley et al. (2017)	Longitudinal associations between mental health conditions and overactive bladder in women veterans	Non-specific prevalence
Caljouw et al. (2011)	Predictive factors of urinary tract infections among the oldest old in the general population. A population-based prospective follow-up study	Non-specific women's prevalence
Coyne et al. (2003)	The impact on health-related quality of life of stress, urge and mixed urinary incontinence	Non-specific women's prevalence
Chen et al. (2018)	Incidence of and social-demographic and obstetric factors associated with postpartum depression: differences among ethnic Han and Kazak women of Northwestern China	Non-specific women's prevalence
Chow et al. (2018)	The prevalence and risk factors of nocturia in China, South Korea, and Taiwan: results from a cross-sectional, population-based study	Non-specific women's prevalence
Dellu et al. (2016)	Prevalence and factors associated with urinary incontinence in climacteric	Non-specific women's prevalence
Djaković et al. (2023)	Life satisfaction and anxiety in women with urinary incontinence	Non-specific prevalence
Dumitrascu et al. (2017)	The quality of life of the women with urinary incontinence	Non-specific prevalence
Felde et al. (2017)	Anxiety and depression associated with urinary incontinence. A 10-year follow-up study from the Norwegian HUNT study (EPINCONT)	Non-specific prevalence
Felde et al. (2020)	Urinary incontinence associated with anxiety and depression: the impact of psychotropic drugs in a cross-sectional study from the Norwegian HUNT study	Non-specific prevalence
Goldacre et al. (2007)	Self-harm and depression in women with urinary incontinence: a record-linkage study	Non-specific prevalence
Goode et al. (2008)	Population-based study of incidence and predictors of urinary incontinence in African American and white older adults	Non-specific prevalence
De Andrade Guimarães et al. (2019)	Depressive symptoms and associated factors in elderly long-term care residents	Non-specific prevalence
Keseroglu et al. (2022)	Impact of urinary incontinence on anxiety status during pregnancy: A prospective case-control study	Non-specific prevalence
Kessler et al. (2022)	Effect of urinary incontinence on negative self-perception of health and depression in elderly adults: a population-based cohort	Non-specific prevalence
Lagana et al. (2014)	Urinary incontinence: Its assessment and relationship to depression among community-dwelling multiethnic older women	Non-specific prevalence
Melville et al. (2009)	Major depression and urinary incontinence in women: temporal associations in an epidemiologic sample	Non-specific prevalence
Milsom et al. (2007)	A cross-sectional, population-based, multinational study of the prevalence of overactive bladder and lower urinary tract symptoms: Results from the EPIC study	Non-specific prevalence
Mishra et al. (2015)	Depression and the incidence of urinary incontinence symptoms among young women: Results from a prospective cohort study	Non-specific prevalence
Saiki et al. (2017)	Urinary incontinence and psychosocial factors associated with intimate relationship satisfaction among midlife women	Non-specific prevalence
Silay et al. (2016)	Occult urinary incontinence in elderly women and its association with geriatric condition	Non-specific prevalence
Stockil et al. (2018)	Urogenital symptoms: prevalence, bother, associations and impact in 22 year old women of the Raine study	Non-specific prevalence
van de Pol et al. (2007)	Is there an association between depressive and urinary symptoms during and after pregnancy?	Non-specific prevalence
Bovbjerg et al. (2009)	Patient-centered treatment goals for pelvic floor disorders: association with quality-of-life and patient satisfaction	Non-specific prevalence
Bryant et al. (2014)	Aspects of mental health care in the gynecological setting	Non-specific prevalence

(Continues)

APPENDIX 3 (Continued)

Author (year)	Title	Exclusion reason
Du et al. (2021)	Effect of epidural analgesia on pelvic floor dysfunction at 6 months postpartum in primiparous women: A prospective cohort study	Non-specific prevalence
Hermankova et al. (2022)	Female sexual dysfunction and pelvic floor muscle function associated with systemic sclerosis: A cross-sectional study	Non-specific women's prevalence
Imboden and Mueller (2018)	Quality of life in patients with endometriosis	Non-specific prevalence
Murray Kunkle et al. (2017)	Prevalence of cognitive impairment in older women with pelvic floor disorders	Non-specific prevalence
Vrijens et al. (2017)	Prevalence of anxiety and depressive symptoms and their association with pelvic floor dysfunctions—A cross sectional cohort study at a pelvic care center	Non-specific prevalence
Mou et al. (2022)	Barriers and promoters to health service utilization for pelvic floor disorders in the United States: systematic review and meta-analysis of qualitative and quantitative studies	Systematic review
Prott et al. (2010)	Relationships between pelvic floor symptoms and function in irritable bowel syndrome	Non-specific prevalence
Sammarco et al. (2020)	Lower urinary tract symptoms in a chronic pelvic pain population	Non-specific prevalence
Woo et al. (1994)	The prevalence of depressive symptoms and predisposing factors in an elderly Chinese population	Non-specific prevalence
Wu et al. (2015) ³⁹	Urinary, fecal, and dual incontinence in older US adults	Non-specific women's prevalence
Zelege et al. (2017)	Vasomotor symptoms are associated with depressive symptoms in community-dwelling older women	Non-specific prevalence
Carrillo-Izquierdo et al. (2018)	Pelvic floor dysfunction in women with fibromyalgia and control subjects: Prevalence and impact on overall symptomatology and psychosocial function	Non-specific prevalence

APPENDIX 4

SUBGROUP ANALYSIS FOR IDENTIFYING POTENTIAL SOURCES OF HETEROGENEITY

Subgroups	All conditions			Chronic pelvic pain			Urinary incontinence			Pelvic organ prolapse			Fecal incontinence		
	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²
Depression															
Global results	51	26.9 (21.6–32.2)	99.9	12	26.8 (19.2–34.4)	98.7	30	26.3 (19.4–33.2)	99.9	3	34.8 (29.3–40.3)	68.0	6	25.3 (0.7–49.9)	99.7
Quality of the study															
Higher quality (≥6)	28	22.5 (12.6–32.5)	99.9	8	35.1 (15.3–54.9)	98.7	16	29.8 (24.4–35.2)	99.2	2	31.1 (24.8–37.4)	0.0	2	17.8 (4.4–38.7)	95.7
Lower quality (<6)	23	30.2 (25.8–34.6)	98.9	4	5.44 (2.54–8.34)	87.7	14	21.8 (9.0–34.5)	99.9	1	46.1 (35.6–57.9)	-	4	29.2 (1.1–59.6)	99.5
Assessment															
Clinical history	5	26.3 (6.2–58.8)	99.9	2	17.3 (6.7–41.3)	98.9	2	35.0 (0.4–70.5)	99.2	0	-	-	1	57.9 (56.0–59.7)	-
Scales or interviews	46	26.4 (23.2–29.7)	99.5	10	29.5 (16.3–42.8)	96.9	28	25.1 (21.6–28.6)	99.5	3	34.8 (29.3–40.3)	68.0	5	16.9 (9.6–24.2)	91.1
Diagnostic scale															
HADS	12	29.6 (23.5–35.7)	98.4	4	28.4 (8.2–48.6)	97.7	8	30.9 (24.5–37.2)	99.9	0	-	-	-	-	-
PHQ-9	12	15.4 (12.1–18.6)	95.9	3	5.2 (2.9–7.5)	84.6	5	15.8 (10.6–20.9)	96.9	2	31.1 (24.8–37.4)	0.0	3	16.9 (7.9–25.9)	86.3
GSD	5	8.0 (6.5–9.4)	81.2	0	-	-	3	7.9 (7.2–8.6)	31.3	-	-	-	2	19.8 (7.5–47.1)	94.4
BDI	3	56.1 (21.2–90.9)	98.8	1	86.0 (77.6–92.1)	-	2	41.2 (4.6–77.9)	98.6	-	-	-	-	-	-
DSM-IV	3	41.1 (30.0–52.1)	66.8	1	28.0 (16.2–42.5)	-	2	46.5 (39.3–53.7)	0.0	-	-	-	-	-	-
Others	15	26.0 (20.6–31.4)	99.0	3	21.7 (3.6–46.9)	98.4	10	25.8 (19.6–31.9)	99.3	1	46.1 (35.6–57.9)	-	-	-	-
Year of publication															
≥2020	14	24.4 (20.0–28.8)	98.1	3	19.9 (5.6–45.4)	98.6	9	26.6 (21.4–31.8)	98.4	1	46.1 (35.6–57.9)	-	1	6.6 (4.9–8.6)	-
<2020	37	27.0 (20.6–33.5)	99.9	9	29.3 (20.7–37.9)	98.9	21	25.2 (16.6–33.7)	99.9	2	31.1 (24.8–37.4)	0.0	5	29.1 (3.1–55.1)	99.4
Population^a															
General	31	22.8 (16.1–29.5)	99.1	2	4.3 (2.4–6.3)	85.7	24	23.4 (15.7–31.0)	99.9	0	-	-	5	27.5 (0.7–55.6)	99.7
Non general	20	33.88 (23.3–44.2)	98.3	10	32.4 (16.1–48.7)	98.5	6	39.1 (12.8–65.3)	98.8	3	34.8 (29.3–40.3)	68.0	1	14.5 (9.0–20.0)	-
Anxiety															
Global results	24	38.3 (29.7–46.9)	99.8	9	29.5 (16.3–42.7)	97.7	12	46.9 (39.1–54.6)	99.6	3	28.0 (13.6–42.4)	89.0	0	-	-
Quality of the study															

(Continues)

APPENDIX 4 (Continued)

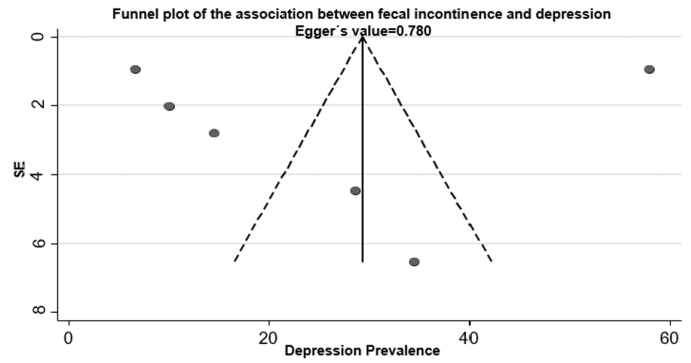
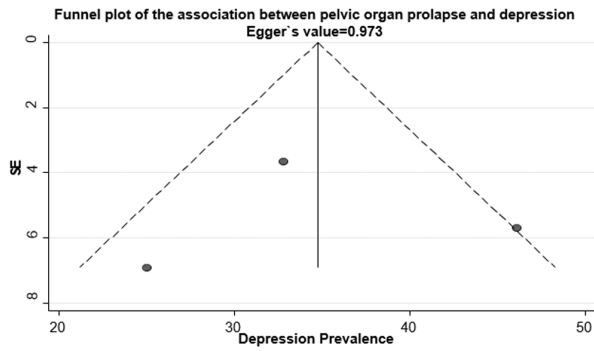
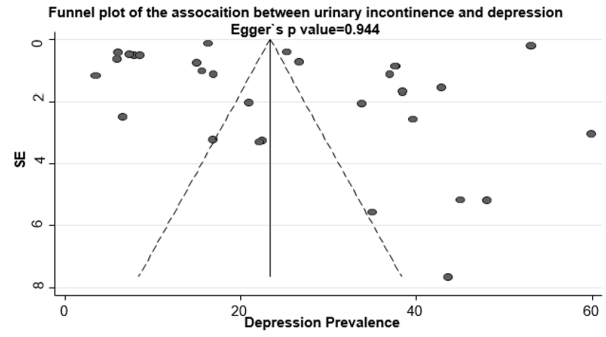
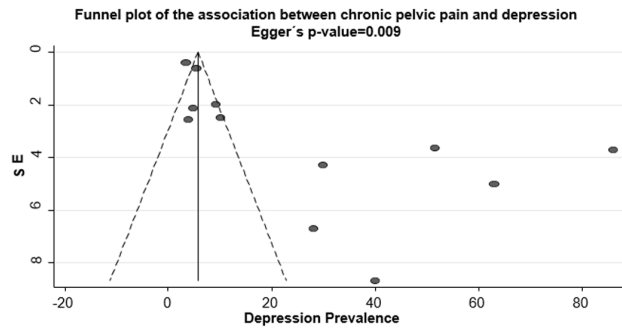
Subgroups	All conditions			Chronic pelvic pain			Urinary incontinence			Pelvic organ prolapse			Fecal incontinence		
	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²	N	Pooled estimate (95% CI)	I ²
Higher quality (≥6)	13	46.6 (37.9–55.4)	96.6	6	37.4 (24.3–50.6)	93.3	7	54.4 (45.8–62.9)	94.9	0	–	–	0	–	–
Lower quality (<6)	11	28.5 (15.5–41.7)	99.9	3	12.2 (1.2–23.1)	88.7	5	37.3 (25.0–49.6)	99.8	3	28.0 (13.6–42.4)	89.0	0	–	–
Assessment															
Clinical history	2	28.3 (0.0–76.8)	99.9	1	3.5 (2.6–4.7)	–	1	53.0 (52.6–53.4)	–	0	–	–	0	–	–
Scales or interviews	22	39.1 (33.2–45.0)	98.6	8	32.8 (21.9–43.8)	92.6	11	46.3 (38.1–54.4)	99.2	3	28.0 (13.6–42.4)	89.0	0	–	–
Diagnostic scale															
HADS	12	41.2 (33.948.5)	98.6	4	31.6 (11.0–52.2)	96.2	8	45.7 (37.3–54.1)	98.9	0	–	–	0	–	–
PHQ-9	2	22.9 (21.5–24.3)	0.0	1	23.2 (17.1–30.3)	–	1	22.9 (21.5–24.3)	–	0	–	–	0	–	–
Others	8	36.6 (23.2–49.9)	95.8	3	28.0 (21.2–34.8)	50.2	2	61.5 (56.6–66.5)	0.0	3	28.0 (13.6–42.4)	89.0	0	–	–
Year of publication															
≥2020	7	35.2 (25.5–44.8)	92.1	3	25.3 (13.0–37.7)	84.9	3	43.2 (17.5–68.9)	95.7	1	46.1 (35.6–57.9)	–	0	–	–
<2020	17	39.2 (28.9–49.6)	99.8	6	31.6 (13.4–49.9)	98.2	9	48.1 (41.1–55.2)	99.4	2	19.7 (14.8–24.6)	0.0	0	–	–
Population ^a															
General	12	36.6 (24.5–48.7)	99.9	1	3.5 (2.6–4.7)	–	9	43.8 (35.0–52.7)	99.7	2	19.7 (14.8–24.6)	0.0	0	–	–
Non-general	12	40.0 (28.9–51.2)	95.0	8	32.8 (21.9–43.8)	92.6	3	60.0 (54.9–65.2)	3.7	1	46.1 (35.6–57.9)	–	0	–	–

Abbreviation: CI, confidence interval.

^a Population of each study was dichotomized. "General" included the studies that randomly selected women with the analyzed condition from the general population or generic consultations. "Non-general" included the studies that specifically selected women that went to consultation because of symptoms, or that were diagnosed with other concomitant pathologies.

APPENDIX 5

FUNNEL PLOT OF THE ASSOCIATION BETWEEN DEPRESSION PREVALENCE AND EACH CONDITION EVALUATED IN THE STUDY



APPENDIX 6

FUNNEL PLOT OF THE ASSOCIATION BETWEEN ANXIETY PREVALENCE AND EACH CONDITION EVALUATED IN THE STUDY

