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Assessing the Physical, Fertility, and Psychosocial Burden of Uterine Fibroids: A Narrative Review

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ABSTRACT

Uterine fibroids (UFs) are common benign gynecologic tumors that impose substantial physical and psychosocial burdens on women of reproductive age. This narrative review examined the association between uterine fibroids and mental health outcomes through a review of literature published between 2014 and 2024. Searches of PubMed, CINAHL, Academic Search Premier, and the Cochrane Database of Systematic Reviews identified 16 studies that met inclusion criteria. Three overarching themes emerged: physical symptom burden, reproductive and fertility concerns, and psychosocial impacts. Evidence consistently demonstrated associations between fibroid symptom severity and diminished health-related quality of life, anxiety, and depression. Fertility concerns and treatment-related decision-making further contributed to psychological distress. Findings underscore the need for comprehensive, patient-centered approaches that integrate mental health assessment, reproductive counseling, and symptom management to address the multidimensional burden of uterine fibroids.

Keywords: Anxiety, Leiomyomas, Mental health, Quality of life, Uterine fibroids

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INTRODUCTION

Uterine fibroids (UFs) are common benign gynecologic tumors that affect a substantial proportion of women during their reproductive years. Although uterine fibroids are frequently characterized by heavy menstrual bleeding, pelvic pain, and other bulk-related symptoms, their effects extend beyond physical symptomatology. Fibroids may disrupt uterine architecture and endometrial function, contributing to infertility, early pregnancy loss, and adverse reproductive outcomes (Navarro et al., 2021; Bedggood et al., 2025). In addition, uncertainty regarding fertility and treatment decisions may further influence the experiences and well-being of affected women (Fortin et al., 2018; Carey et al., 2023).

Increasing evidence also indicates that uterine fibroids are associated with significant psychosocial burden. Women with fibroids frequently report impairments in emotional well-being, social functioning, sexual health, and overall quality of life. A systematic review found that women with uterine fibroids experienced impairments in bodily pain, mental health, social functioning, and sexual satisfaction that were comparable to, or greater than, those reported among individuals with chronic conditions such as diabetes mellitus and breast cancer (Go et al., 2020). Furthermore, fibroid symptom severity has been associated with anxiety, depressive symptoms, and diminished health-related quality of life (Wallace et al., 2022; Stewart et al., 2023).

Taken together, the available evidence suggests that uterine fibroids represent a complex condition with interconnected physical, reproductive, and psychosocial consequences. Although considerable research has examined individual aspects of fibroid burden, less attention has been directed toward understanding how these dimensions collectively shape the experiences and quality of life of affected women. Therefore, this narrative review synthesizes the current literature examining the associations between uterine fibroids and mental health outcomes while considering the broader physical and reproductive contexts in which these outcomes occur.

METHODS

A narrative review was conducted to examine the association between uterine fibroids and mental health outcomes. Electronic searches were performed in PubMed, CINAHL, Academic Search Premier, and the Cochrane Database of Systematic Reviews to identify studies published between January 1, 2014, and December 31, 2024. Search terms included *uterine fibroids, fibroids, uterine leiomyomas, myomas, mental health, anxiety, depression, and stress*.

The initial search identified 34 articles. After the removal of ineligible records, 31 articles were screened for eligibility. Three reviewers independently screened titles, abstracts, and full-text articles for eligibility, with disagreements resolved through discussion and consensus. Studies included if uterine fibroids and at least one mental health outcome were primary areas of investigation. Articles were excluded if mental health was not a central outcome, represented duplicate or substantially overlapping reports, or were conducted outside the United States. Restricting the review to U.S.-based studies allowed for greater comparability in healthcare access, treatment practices, and sociocultural factors that may influence the experiences of women with uterine fibroids. Following application of the eligibility criteria, 16 studies were retained for inclusion (Figure 1).

Given the narrative design and heterogeneity of the included studies, a formal risk-of-bias assessment was not performed. Instead, studies were evaluated descriptively based on study design, sample characteristics, and relevance to the review objectives.

RESULTS

Of the 31 articles initially screened, 16 met the inclusion criteria and were included in this narrative review (Figure 1). Synthesis of the literature identified three overarching domains of burden associated with uterine fibroids: physical challenges, reproductive and fertility concerns, and psychosocial impacts. These domains provide a framework for understanding the multidimensional effects of uterine fibroids reported across the literature.

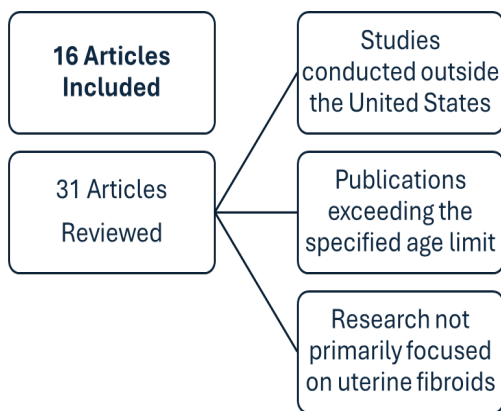


Figure 1: Identification of Articles

Physical Challenges

The physical burden of uterine fibroids encompasses a broad spectrum of symptoms and remains a central focus of literature. Studies have characterized the prevalence and severity of fibroid-related symptoms, evaluated treatment outcomes, and examined the effects of symptom burden on quality of life.

Evidence consistently demonstrates that severe menstrual bleeding and pelvic pain are among the most common and debilitating symptoms associated with uterine fibroids. Pain is most frequently described as abdominal cramping, although lower back and leg pain are also commonly reported (Fortin et al., 2018). In a U.S. cross-sectional study of 59,411 women aged 18–49 years, the most frequently reported symptoms included lower back pain (65%), fatigue or anemia (63%), pelvic pain (63%), bloating (61%), and heavy menstrual bleeding (54%) (Soliman et al., 2017). Collectively, these findings indicate that physical symptoms substantially contribute to diminished quality of life among women with uterine fibroids.

Treatment options for symptom management include medical, surgical, and radiologic interventions. A systematic review of 34 studies reported a mean symptom severity score

of 53.1% before treatment, which decreased to 21.7% following intervention (Neumann et al., 2024). Despite these improvements, residual symptoms remained common. Similarly, randomized trials of hormonal therapies have demonstrated significant reductions in heavy menstrual bleeding, clotting, and pelvic pain; however, complete symptom resolution is uncommon. Thus, although available therapies reduce symptom burden, many women continue to experience persistent symptoms that adversely affect quality of life.

The effects of uterine fibroids extend beyond physical symptoms and include impairments in mental health and health-related quality of life (HR-QOL). Common HR-QOL domains include concern, activities, energy or mood, control, self-consciousness, and sexual function (Stewart et al., 2023). Among these domains, concern and self-consciousness consistently demonstrate the greatest impairment. Moreover, studies have identified significant associations between fibroid symptom severity and symptoms of anxiety and depression. Wallace et al. (2022) reported a positive correlation between symptom severity and the prevalence of anxiety and depressive symptoms, with improvements in physical symptoms corresponding to reductions in psychological distress.

Changes in symptom severity have also been associated with improvements in perceived control and concern scores on HR-QOL measures (Keizer et al., 2021). Comparative studies further indicate that women with uterine fibroids experience psychosocial impairments that are comparable to, and in some cases exceed, those observed among individuals with chronic conditions such as heart disease and diabetes mellitus (Go et al., 2020). Despite these findings, the psychosocial burden of uterine fibroids remains comparatively understudied.

Taken together, the evidence demonstrates that uterine fibroids represent a multifaceted condition characterized by substantial physical symptom burden and significant consequences for mental health and overall quality of life (Fortin et al., 2018; Go et al., 2020; Keizer et al., 2021; Neumann et al., 2024; Soliman et al., 2017; Stewart et al., 2023; Wallace et al., 2022).

Reproductive and Fertility Concerns

Uterine fibroids are strongly associated with reproductive challenges because of their potential to alter uterine architecture, disrupt endometrial function, and impair implantation (Navarro, Bariani, Yang, & Al-Hendy, 2021). Submucosal fibroids are particularly detrimental because they distort the uterine cavity and endometrium, resulting in reduced implantation rates and increased risks of infertility and early pregnancy loss (Navarro et al., 2021; Bedgood et al., 2025). However, even fibroids that do not directly distort the uterine cavity may adversely affect fertility by altering uterine contractility and local vascularization (Bedgood et al., 2025).

Genetic factors may further contribute to the reproductive consequences of uterine fibroids. Kiewa et al. (2023) identified shared genetic loci linking fibroids with other reproductive disorders, suggesting that some women may be predisposed to both fibroid development and subfertility. In addition, systemic manifestations associated with fibroids, including elevated blood pressure, may adversely affect pregnancy outcomes and complicate assisted reproductive strategies (Xu et al., 2024).

Management strategies for uterine fibroids have important implications for reproductive potential. Myomectomy remains the standard fertility-preserving intervention, particularly for women with submucosal or large intramural fibroids. Surgical

removal can restore normal uterine anatomy and has been associated with improved conception rates and live birth outcomes (Bedggood et al., 2025; Fortin, Flyckt, & Falcone, 2018). In contrast, alternative interventions, such as uterine artery embolization (UAE), may compromise ovarian reserve and endometrial function, raising concerns regarding future fertility (Nazarinasab, Motamedfar, Ahmadzadeh, & Seyedhoseini, 2021; Lynch & Mayer, 2022). Pharmacologic therapies, including ulipristal acetate and relugolix combination therapy, have demonstrated efficacy in reducing fibroid size and controlling symptoms; however, their effects on fertility remain incompletely understood and warrant careful counseling for women desiring future pregnancy (Biscione, Barra, Bellone, Severi, & Luisi, 2020; Stewart et al., 2023).

Beyond their physiological effects, uterine fibroids present significant psychosocial and reproductive challenges that necessitate patient-centered care. Studies indicate that women, particularly those from historically marginalized populations, frequently report inadequate counseling regarding fertility-preserving treatment options, resulting in delayed treatment decisions and missed opportunities for conception (Carey et al., 2023; Lerner, Donnellan, Siedhoff, Truong, & King, 2023; Marsh, Chibber, & Saad, 2017). Furthermore, psychosocial distress associated with fibroid symptoms, including anxiety and depression, may adversely affect reproductive outcomes through hormonal dysregulation and delayed family planning (Neumann, Singh, Brennan, Blanck, & Segars, 2024; Wallace et al., 2022; Han, Wu, Bian, Chen, & Feng, 2024). Collectively, these findings underscore the importance of integrating fertility-focused counseling, psychosocial support, symptom management, and shared decision-making into comprehensive care strategies to optimize reproductive outcomes among women with uterine fibroids (Fortin et al., 2018; Aninye & Laitner, 2021).

Psychosocial Impact

The physical and reproductive burdens associated with uterine fibroids extend beyond symptom management and fertility concerns, substantially affecting psychosocial well-being. Uterine fibroids are among the most common gynecologic conditions affecting women of reproductive age; however, their burden is not experienced equally across populations. Black women have a disproportionately higher lifetime risk of developing fibroids, are more likely to be diagnosed at younger ages, and frequently experience more severe symptoms. These disparities contribute to significant differences in disease burden and overall well-being.

A growing body of evidence demonstrates that uterine fibroids adversely affect quality of life (QOL), including emotional, psychological, and social functioning. Women commonly report chronic pain, heavy or unpredictable menstrual bleeding, fatigue, sexual dysfunction, and gastrointestinal and urinary symptoms. These manifestations often extend beyond physical health and interfere with occupational responsibilities, social engagement, and intimate relationships. In some studies, women with fibroids reported quality-of-life scores that were lower than those observed among older adults living with chronic conditions such as diabetes mellitus and heart disease, underscoring the profound burden of the disease despite its occurrence in younger populations.

A comprehensive systematic review of radiologic, medical, and surgical interventions found consistent evidence that treatment is associated with improvements in both symptom severity and quality-of-life outcomes. Across multiple validated fibroid-specific

instruments, women reported meaningful reductions in symptom burden and improvements in overall well-being following treatment. Nevertheless, long-term evidence comparing quality-of-life outcomes across medical, surgical, and radiologic interventions remains limited (Neumann et al., 2024).

Psychological distress is also closely associated with uterine fibroids. Observational studies have reported increased rates of anxiety and depression among women with fibroids. The unpredictability of menstrual bleeding, concerns regarding fertility, chronic pain, and the potential need for invasive procedures contribute substantially to emotional distress. Many women describe persistent anxiety related to symptom unpredictability, which may exacerbate stress and further diminish overall life satisfaction (Han et al., 2024).

Emerging evidence also suggests a more complex relationship between fibroids and mental health. Bidirectional two-sample Mendelian randomization analyses have examined the associations between fibroids and psychological disorders using genetic variants associated with depressive symptoms, major depressive disorder (MDD), anxiety or panic attacks, and mood swings.

These analyses demonstrated that genetic predisposition to depressive symptoms and MDD was associated with an increased risk of developing uterine fibroids. Similarly, mood swings were positively associated with fibroid risk. However, the analyses did not support a reverse causal relationship, indicating that uterine fibroids were not genetically associated with the development of psychological disorders. Notably, the relationship between MDD predisposition and fibroid risk remained statistically significant after adjustment for body mass index, smoking, alcohol use, and parity (Han et al., 2024). These findings suggest that depression may not merely coexist with uterine fibroids but may also contribute to their development, emphasizing the importance of incorporating mental health assessment and management into comprehensive fibroid care.

Because symptomatic fibroids substantially diminish health-related quality of life, effective treatment remains essential. The LIBERTY 1 and LIBERTY 2 phase 3 randomized clinical trials evaluated the efficacy of oral relugolix combination therapy (40 mg relugolix, 1 mg estradiol, and 0.5 mg norethindrone acetate daily) among premenopausal women with heavy menstrual bleeding attributable to uterine fibroids. Although reduction of menstrual blood loss was the primary endpoint, secondary outcomes included symptom burden and health-related quality of life. Outcomes were assessed using the validated Uterine Fibroid Symptom and Quality of Life (UFS-QOL) questionnaire, which measures symptom severity and multiple domains of daily functioning. Across both trials, 509 participants were randomized to receive either relugolix combination therapy or placebo. Women receiving relugolix demonstrated significantly greater reductions in symptom severity and bleeding-related discomfort than those receiving placebo. Improvements were also observed across all quality-of-life domains, including emotional well-being, physical and social functioning, and sexual health. Furthermore, a greater proportion of women in the treatment group achieved clinically meaningful improvements in bleeding symptoms and daily functioning. After 24 weeks of treatment, relugolix combination therapy was associated with substantial reductions in symptom burden and significant improvements in health-related quality of life (Stewart et al., 2023).

Collectively, the evidence highlights the multidimensional burden of uterine fibroids. Beyond their physical manifestations, fibroids substantially affect emotional health, social participation, sexual functioning, and occupational well-being. Emerging genetic evidence

suggests that depression may increase susceptibility to fibroid development, underscoring the complex interrelationship between psychological and reproductive health. Concurrently, advances in medical therapy, including relugolix combination therapy, demonstrate that targeted interventions can meaningfully reduce symptom burden and improve overall quality of life. These findings support the need for comprehensive, patient-centered care models that address both the physical and psychosocial dimensions of uterine fibroids, particularly among populations disproportionately affected by the condition (Han et al., 2024; Neumann et al., 2024; Stewart et al., 2023).

DISCUSSION

This narrative review highlights the multidimensional burden of uterine fibroids (UFs) and demonstrates that their effects extend well beyond gynecologic symptomatology. Consistent with prior literature, severe menstrual bleeding, pelvic pain, lower back pain, fatigue, and bloating emerged as the most prevalent and disruptive physical manifestations of the disease (Fortin et al., 2018; Soliman et al., 2017). Although radiologic, surgical, and medical interventions substantially reduce symptom severity, complete symptom resolution is uncommon, and many women continue to experience persistent physical symptoms following treatment (Neumann et al., 2024). Even in studies reporting improvements in health-related quality of life (HR-QOL), including the LIBERTY 1 and LIBERTY 2 randomized clinical trials evaluating relugolix combination therapy, reductions in symptom burden did not uniformly eliminate the broader psychosocial consequences of the disease (Stewart et al., 2023). Collectively, these findings suggest that symptom control, although essential, may be insufficient as the sole therapeutic endpoint.

The evidence further demonstrates a robust relationship between fibroid symptom severity and diminished HR-QOL, particularly within domains of concern, self-consciousness, emotional well-being, and perceived control (Keizer et al., 2021; Stewart et al., 2023). Comparative analyses indicate that the psychosocial burden associated with uterine fibroids is comparable to, and in some cases exceeds, that observed in chronic conditions such as heart disease and diabetes mellitus (Go et al., 2020). This finding is particularly noteworthy given the relative under recognition of uterine fibroids as a chronic disease with significant psychosocial implications. Moreover, the association between symptom severity and increased rates of anxiety and depressive symptoms further illustrates the interrelated nature of physical and psychological health among women with fibroids (Wallace et al., 2022).

Emerging genetic evidence adds further complexity to this relationship. Bidirectional Mendelian randomization analyses suggest that genetic predisposition to depressive symptoms and major depressive disorder may increase the risk of developing uterine fibroids, while providing no evidence that fibroids themselves genetically contribute to the development of psychological disorders (Han et al., 2024). These findings suggest that depression may represent not only comorbidity but also a potential contributor to fibroid pathogenesis. Consequently, mental health assessment and management should be considered integral components of comprehensive fibroid care, with the potential to improve quality of life and potentially mitigate disease risk.

Reproductive concerns further compound the psychosocial burden associated with uterine fibroids. Fertility uncertainty, fear of infertility, and decisional conflict surrounding

hysterectomy and fertility-preserving interventions consistently emerge as important sources of anxiety and diminished well-being (Fortin et al., 2018; Ghant et al., 2015). Inadequate counseling regarding reproductive options may exacerbate emotional distress, whereas patient-centered, fertility-informed counseling has been associated with improved coping and quality of life (Carey et al., 2023; Marsh et al., 2017). Furthermore, unmet reproductive goals and structural inequities in access to care may intensify psychosocial burden, particularly among populations disproportionately affected by uterine fibroids (Al-Hendy et al., 2017; Katon et al., 2023; Yang et al., 2025).

Taken together, the findings of this review underscore the need for treatment approaches that extend beyond reducing menstrual blood loss or fibroid volume. Effective management of uterine fibroids requires systematic assessment of mental health, reproductive goals, and the broader social context in which women experience the disease. Although advances in pharmacologic therapies have demonstrated meaningful improvements in symptom burden and HR-QOL (Stewart et al., 2023), long-term comparative effectiveness data across treatment modalities remain limited (Neumann et al., 2024). Future research should prioritize longitudinal evaluation of psychosocial outcomes, the integration of mental health interventions into routine gynecologic care, and targeted strategies to address persistent disparities in disease burden and treatment access. Ultimately, a comprehensive, patient-centered model of care is essential to fully address the physical, reproductive, and psychosocial dimensions of uterine fibroids.

LIMITATIONS

This review has several limitations. First, the findings are limited to published, English-language studies conducted in the United States and, therefore, may be subject to publication bias. Second, the studies included varied methods of diagnosing uterine fibroids, relying on either database-derived diagnoses or self-reported measures. Finally, certain marginalized populations were underrepresented in the available literature, potentially limiting the generalizability of these findings.

CONCLUSION

In summary, uterine fibroids are associated with a substantial physical symptom burden and clinically meaningful impairments in health-related quality of life. Although contemporary medical, surgical, and radiologic therapies effectively reduce symptom severity, many women continue to experience persistent symptoms and ongoing psychosocial consequences (Neumann et al., 2024; Stewart et al., 2023). The documented associations among fibroid symptom severity, anxiety, depression, and diminished quality of life, coupled with emerging evidence suggesting that depressive disorders may contribute to fibroid risk, underscore the need for integrated models of care that incorporate mental health assessment and support (Wallace et al., 2022; Han et al., 2024). Furthermore, fertility concerns and treatment-related decisional conflict remain central components of the patient experience, reinforcing the importance of patient-centered counseling that incorporates reproductive goals (Carey et al., 2023; Ghant et al., 2015). Greater emphasis on multidisciplinary management and longitudinal evaluation of psychosocial outcomes is

warranted to more comprehensively address the complex and enduring burden of uterine fibroids.

Implications

The findings of this review have important implications for both women's health and public health. Uterine fibroids should be recognized not only as a gynecologic condition but also as a chronic health issue with significant physical, reproductive, and psychosocial consequences. The associations between fibroid symptom severity, diminished quality of life, anxiety, and depression highlight the need for integrated, multidisciplinary approaches to care that incorporate mental health screening, reproductive counseling, and symptom management. From a public health perspective, the disproportionate burden of fibroids among Black women and other underserved populations underscores the importance of addressing health disparities, improving access to timely diagnosis and evidence-based treatment, and promoting patient-centered interventions that support both physical and psychological well-being. Greater awareness and targeted public health strategies are needed to reduce the long-term burden of uterine fibroids and improve health outcomes among affected women.

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- None*
- Some sections, with minimal or no editing*
- Some sections, with extensive editing*
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- Entire work, with extensive editing*

This article incorporates content generated by Artificial Intelligence (AI) tools. Grammarly was used to check the grammar of the body of the paper. The use of AI tools complied with ethical standards and guidelines for academic integrity. The final content has been thoroughly reviewed and edited to ensure accuracy, relevance, and adherence to academic standards.

REFERENCES

- Al-Hendy, A., Myers, E. R., & Stewart, E. (2017). Uterine Fibroids: Burden and Unmet Medical Need. *Seminars in reproductive medicine*, 35(6), 473–480.
<https://doi.org/10.1055/s-0037-1607264>
- Aninye, I. O., & Laitner, M. H. (2021). Uterine Fibroids: Assessing Unmet Needs from Bench to Bedside. *Journal of Women's Health (2002)*, 30(8), 1060–1067.
<https://doi.org/10.1089/jwh.2021.0280>
- Bedggood, E., Jie, S., Ghosh, S., Pathiraja, V., Mudalige, T., Rathnayake, N., Cavalini, H., Kurmi, O., Eleje, G. U., Phiri, P., Briggs, P., Shi, J. Q., Delanerolle, G., & Elneil, S. (2025). Evaluating treatment options for symptomatic uterine fibroids: a systematic review and meta-analysis of effectiveness, recovery, and long-term outcomes (MARIE WP1). *Frontiers in Global Women's Health*, 6, 1601341.
<https://doi.org/10.3389/fgwh.2025.1601341>
- Biscione, A., Barra, V., Bellone, E., Severi, F. M., & Luisi, S. (2020). Ulipristal acetate on quality of life and sexual function of women with uterine fibromatosis. *Gynecological Endocrinology*, 36(1), 87–92.
<https://doi.org/10.1080/09513590.2019.1640202>
- Carey, C., Silvestrini, M., Callegari, L. S., Katon, J. G., Bossick, A. S., Doll, K. M., Christy, A., Washington, D. L., & Owens, S. (2023). "I Wasn't Presented With Options": Perspectives of Black Veterans Receiving Care for Uterine Fibroids in the Veterans Health Administration. *Women's health issues : official publication of the Jacobs Institute of Women's Health*, 33(6), 652–660.
<https://doi.org/10.1016/j.whi.2023.07.006>
- Fortin, C., Flyckt, R., & Falcone, T. (2018). Alternatives to hysterectomy: The burden of fibroids and the quality of life. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 46, 31–42. <https://doi.org/10.1016/j.bpobgyn.2017.10.001>
- Ghant, M. S., Sengoba, K. S., Recht, H., Cameron, K. A., Lawson, A. K., & Marsh, E. E. (2015). Beyond the physical: a qualitative assessment of the burden of symptomatic uterine fibroids on women's emotional and psychosocial health. *Journal of psychosomatic research*, 78(5), 499–503.
<https://doi.org/10.1016/j.jpsychores.2014.12.016>
- Go, V. A. A., Thomas, M. C., Singh, B., Prenatt, S., Sims, H., Blanck, J. F., & Segars, J. H. (2020). A systematic review of the psychosocial impact of fibroids before and after treatment. *American journal of obstetrics and gynecology*, 223(5), 674–708.e8.
<https://doi.org/10.1016/j.ajog.2020.05.044>
- Han, X., Wu, T. Q., Bian, Y., Chen, L., & Feng, X. (2024). Psychological distress and uterine fibroids: a bidirectional two-sample mendelian randomization study. *BMC women's health*, 24(1), 351.
- Keizer, A. L., van Kesteren, P. J. M., Terwee, C., de Lange, M. E., Hehenkamp, W. J. K., & Kok, H. S. (2021). Uterine Fibroid Symptom and Quality of Life questionnaire (UFS-QOL NL) in the Dutch population: a validation study. *BMJ open*, 11(11), e052664. <https://doi.org/10.1136/bmjopen-2021-052664>
- Kiewa, J., Mortlock, S., Meltzer-Brody, S., Middeldorp, C., Wray, N. R., & Byrne, E. M. (2023). A Common Genetic Factor Underlies Genetic Risk for Gynaecological and

- Reproductive Disorders and Is Correlated with Risk to Depression. *Neuroendocrinology*, 113(10), 1059–1075. <https://doi.org/10.1159/000533413>
- Lerner, V. T., Donnellan, N. M., Siedhoff, M. T., Truong, M. D., & King, C. R. (2023). Care Delivery for Patients with Leiomyomas: Failures, Real-Life Experiences, Analysis of Barriers, and Proposed Restorative Remedies. *Health Equity*, 7(1), 439–452. <https://doi.org/10.1089/hecq.2022.0116>
- Lynch, S. E., & Mayer, D. C. (2022). Oriahnn: New Drug Approved for Treating Heavy Menstrual Bleeding in Women With Uterine Fibroids. *The Annals of Pharmacotherapy*, 56(1), 93–101. <https://doi.org/10.1177/10600280211015987>
- Marsh, E. E., Chibber, S., & Saad, W. (2017). Patient-Centered Care and Uterine Fibroids. *Seminars in Reproductive Medicine*, 35(6), 560–564. <https://doi.org/10.1055/s-0037-1607267>
- Mayo Foundation for Medical Education and Research. (2025). Anxiety disorders. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/anxiety/symptoms-causes/syc-20350961>
- Navarro, A., Bariani, M. V., Yang, Q., & Al-Hendy, A. (2021). Understanding the Impact of Uterine Fibroids on Human Endometrium Function. *Frontiers in Cell and Developmental Biology*, 9, 633180. <https://doi.org/10.3389/fcell.2021.633180>
- Nazarinasab, M., Motamedfar, A., Ahmazadeh, A., & Seyedhoseini, M. (2021). Comparison of anxiety level in patients under uterine fibroid treatment by myomectomy and uterine artery embolization (UAE) and its relationship with pain and duration of postoperative hospitalization in Ahvaz educational hospitals in 2018. *Journal of Family Medicine and Primary Care*, 10(12), 4586–4593. https://doi.org/10.4103/jfmipc.jfmipc_1213_21
- Neumann, B., Singh, B., Brennan, J., Blanck, J., & Segars, J. H. (2024). The impact of fibroid treatments on quality of life and mental health: A systematic review. *Fertility and Sterility*, 121(3), 400. <https://doi.org/10.1016/j.fertnstert.2024.01.021>
- Soliman, A. M., Margolis, M. K., Castelli-Haley, J., Fuldeore, M. J., Owens, C. D., & Coyne, K. S. (2017). Impact of uterine fibroid symptoms on health-related quality of life of US women: evidence from a cross-sectional survey. *Current medical research and opinion*, 33(11), 1971–1978. <https://doi.org/10.1080/03007995.2017.1372107>
- Stewart, E. A., Lukes, A. S., Venturella, R., Li, Y., Hunsche, E., Wagman, R. B., & Al-Hendy, A. (2023). Quality of life with relugolix combination therapy for uterine fibroids: LIBERTY randomized trials. *American journal of obstetrics and gynecology*, 228(3), 320.e1–320.e11. <https://doi.org/10.1016/j.ajog.2022.11.1278>
- Wallace, K., Stewart, E. A., Wise, L. A., Nicholson, W. K., Parry, J. P., Zhang, S., Laughlin-Tommaso, S., Jacoby, V., Anchan, R. M., Diamond, M. P., Venable, S., Shiflett, A., Wegienka, G. R., Maxwell, G. L., Wojdyla, D., Myers, E. R., & Marsh, E. (2022). Anxiety, Depression, and Quality of Life After Procedural Intervention for Uterine Fibroids. *Journal of women's health* (2002), 31(3), 415–424. <https://doi.org/10.1089/jwh.2020.8915>
- Xu, H., Ma, Y., Long, Y., Liu, R., Cheng, Z., Xie, X., Han, X., & Wang, X. (2024). Uterine leiomyoma causes an increase in systolic blood pressure: a two-sample Mendelian randomization study. *Frontiers in Endocrinology*, 15, 1373724. <https://doi.org/10.3389/fendo.2024.1373724>

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