

# Endometriosis and Depression: A Double Agony for Women

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## Abstract

**Background:** Endometriosis is defined as a condition in which a formation of abnormal endometrial tissue outside the uterus takes place. Irrespective of any ethnic and socioeconomic class, the prevalence of the diseases has been seen among women of reproductive age. Endometriosis has been seen adversely affect the physical, psychological, social, and career of women.

**Summary:** This paper aims to identify and describe the experiences and outcomes of endometriosis healthcare by reviewing the existing literature on social and psychological effects of endometriosis. The study serves the purpose of providing insights on women's dual suffering (mental and social health) and critical comments on the present state of knowledge in order to make future recommendations for psycho-social research. The review included systematic search of the articles from various disciplines like, biology, psychology, sociology, anthropology, etc. A structured process of screening with specific inclusion and exclusion criteria was used to select the articles. The analysis of the articles resulted that woman diagnosed with endometriosis reported poor quality of life and the following symptoms such as anxiety, stress, Chronic Pelvic Pain (CPP), anxiety, dyspareunia, and dysmenorrhea. However, depression appears prominent among women diagnosed with endometriosis. There are few strategies mentioned that can be used to deal with endometriosis.

**Key Message:** The most promising causes of endometriosis include abnormality in immune functioning, atypical endometriotic growth, genetics, epigenetic, embryogenetic theory, and endocrine disruptors. The ill effects have been noted in the following domains of women's life such as work, close relationships, social well-being, and education, deteriorating their quality-of-life manifold. Psychological intervention is required to deal with the disorder as only medical treatment with pain may not be sufficient. Though, the condition can be improved by providing awareness regarding the severity of the disorder at the school and community levels.

## Keywords

Endometriosis, anxiety, pelvic pain, depression

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## Introduction

The abnormal appearance of functional endometrial tissue or glands outside the uterus is called endometriosis.<sup>1,2</sup> Endometriosis has been reported to affect nearly 10% of women of reproductive age and up to 50% of women with infertility.<sup>3,4</sup> The severity of the symptoms can be understood by considering the position, volume, and size of endometrial foci, pelvic structures, the blockage in the fallopian tubes, and pelvic adhesions.<sup>5</sup> In addition, in 1996 (revised American Society for Reproductive Medicine classification of endometriosis) proposed four various stages, namely, Stages

I, II, III, and IV, to comprehend the complexity of the disease. Women diagnosed with Stage I endometriosis have been characterized by exhibiting intense symptoms, whereas

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women with Stages II–III endometriosis display less intense symptoms and signs stages.

As far as the pathogenesis of the diseases is concerned, there is no agreement on the specific cause of the disease. However, the most promising causes of endometriosis include immune abnormalities and dysfunctional growth of endometriotic tissue<sup>2</sup> genetics, epigenetic or environmental factors,<sup>6,7</sup> embryogenetic theory, and endocrine disruptors.<sup>8,9</sup> Chronic pelvic pain (CPP) appears to be a key symptom that is independent of the stages of endometriosis<sup>10,11</sup> meaning that women exhibiting acute symptoms of endometriosis may experience less pain, whereas women reporting fewer symptoms of endometriosis experience intense pain.<sup>12,13</sup> Additionally, to diagnose endometriosis, laparoscopic investigation has shown promising outcomes.<sup>14</sup>

## Effect of Endometriosis on Women's Lives

There have been multiple studies noting the adverse impact of endometriosis on psychological well-being, mental health (anxiety and depression), job performance, social relationships, and the quality of life of women.<sup>15</sup>

The areas of women where endometriosis can be seen are listed below:

### Physical Health

The effect of endometriosis can be understood under two broad headings, namely, CPP and dyspareunia

#### (a) Chronic Pelvic Pain (CPP)

Women diagnosed with endometriosis most commonly complain of CPP, which can manifest several symptoms like fatigue, dysmenorrhoea, dyspareunia, dysuria, and dyschesia,<sup>16,17</sup> as well as pain during ovulation.<sup>18</sup> Pain in the pelvic areas experienced by women due to endometriosis that continues for 6 months or longer is called CPP. A significant association between endometriosis has been seen between infertility and CPP, affecting 5%–10% of women of reproductive age.<sup>19</sup> Due to disagreement regarding the etiology of the diseases, the management of endometriosis related infertility has become unmanageable. However, to deal with the situation, *in vitro* fertilization has been found to be a promising treatment method.

#### (b) Dyspareunia

It refers to uncomfortable sex, which is the most typical endometriosis symptom experienced by sexually active women. It is characterized by genital pain that can occur before, during, or following sexual activity. Dyspareunia may also result in both poor physical and mental health, resulting in low self-esteem, depression, anxiety, pain sensitivity, and hypervigilance.<sup>20</sup>

### Career

Endometriosis has been seen to affect women's grades and study habits, resulting in decreased academic performance and poor job performance.<sup>21,22</sup> An average loss of one working day (approximately 7.41 h) among women diagnosed with endometriosis.<sup>23</sup> Additionally, they had a significant negative impact on domains connected to the workplace: absenteeism caused an average loss of time at work of 13%; presenteeism caused a loss of production at work of 64%; and disruption of daily activities of 60% (activity impairment).

### Social Relationships

Multiple studies have found that endometriosis has an impact on social relationships such as family, work, and sexual relationships,<sup>24</sup> though individual experiences in each area may vary. After the onset of CPP, women with endometriosis experience progressive social isolation. Furthermore, social isolation included avoidance of partner intimacy as well as isolation from family and friends.<sup>25</sup> Profound CPP (especially dyspareunia) was linked to a greater perceived negative effect on intimate relationships,<sup>26,27</sup> leading to poor psychological health.<sup>28</sup>

### Emotional Well-Being

A considerably good percentage of women of reproductive age diagnosed with endometriosis have also been noted to experience impaired emotional health<sup>29,30</sup> making the condition worse.

Hence, based on the prior studies, the researchers attempted to offer insights into women's mental health (depression) during endometriosis by making future recommendations for upcoming research.

## Methods

### Inclusion Criteria

The study includes articles from different disciplines like sociology, psychology, and anthropology. Relevant studies were identified through PubMed, ResearchGate, Google Scholar, and Elsevier and included articles addressing the effect of endometriosis on the mental health, social well-being, career, and physical health of women.

### Exclusion Criteria

The study excluded clinical case studies, editorials, and research that did not assess the social, physical, mental, and career aspects of women diagnosed with endometriosis.

## Screening

Based on the inclusion and exclusion criteria, the authors removed ineligible or duplicate titles, abstracts, and full texts of the article. The present study finally includes an analysis and interpretation of each study.

## Endometriosis and Depression

To determine the psychological effect of endometriosis, the severity of symptoms must be thoroughly taken into consideration. Based on multiple studies, a close correlation between endometriosis and depressive symptoms,<sup>31</sup> along with CPP, anxiety<sup>32</sup> pessimism, social withdrawal, negative self-image, fatigue, and decreased sex desires<sup>33</sup> has been reported. 86% of women experiencing CPP reported depressive symptoms.<sup>34</sup> Additionally, the women experiencing CPP exhibit various symptoms such as somatoform concerns, sadness, infertility, and sexual dysfunction.<sup>35</sup>

It is also likely that additional illnesses linked to endometriosis include mood disorders<sup>36,37</sup> and psychoticism. Also, women experiencing endometriosis-related pain reported higher rates of anxiety when associated with another type of chronic pain (migraine headache).<sup>38</sup> A diverse range of psychiatric symptoms, especially sadness, elevated stress,<sup>39</sup> depression, and anxiety disorders (emotional distress, hopelessness, isolation, worthlessness, depression, and suicide ideation)<sup>40</sup> were also seen among women diagnosed with endometriosis.

Thus, it can be said that women's inability to cope with pain makes them irritable, short-tempered, and even depressed. Furthermore, they feel lonely and are hesitant to tell others about their experiences because they believe they are not always believed.

## Strategies to Deal with Endometriosis

Although the actual cause of endometriosis is not clear, the following strategies can be applied to manage endometriosis and related concerns:

1. Making modifications in the diet (fish oil) and exercising can reduce the symptoms of endometriosis.<sup>41</sup> Still, there is a need to study this subject further.
2. The selection of the most pertinent investigations by healthcare professionals and an improved understanding of the various clinical aspects and presentations of endometriosis may help to shorten the time it takes for a medical diagnosis.<sup>42,43</sup>
3. Education related to physiology and endometriosis in schools can help women distinguish between menstrual discomfort and related concerns.<sup>44</sup>
4. Initiatives to promote awareness regarding endometriosis and the stigma associated with menstrual abnormalities can be made.<sup>45</sup>
5. Management of post-diagnostic healthcare must be offered. It should be thorough and built upon a biopsychosocial strategy.<sup>46</sup> The need for a more patient-centered approach to treatment and experiences with comprehensive care should be practiced.<sup>47</sup>
6. Women should be adequately informed at the time of diagnosis about the procedure (such as anesthetic methods, incision size and location, potential side effects, pain, and recovery time), as well as about managing the endometriosis.<sup>48</sup>
7. Women who have had endometriosis treated can be extremely helpful and valuable source of information for other women who are suffering from the same disease; thus, support groups can serve as a bond and a great source of assistance for larger patient communities.<sup>41,49-51</sup>

## Conclusion

The most prevalent gynecological disease, endometriosis, is categorized by the formation of abnormal endometrial tissue outside the uterus. The research literature has extensively demonstrated the adverse impact of endometriosis on mental health, resulting in a wide range of psychological (anxiety, sadness, and depression) and physiological symptoms. Additionally, the ill effects of endometriosis have been noted in the following domains of women's lives, such as work, close relationships, social well-being, and education, deteriorating their quality-of-life manifold. Due to the disagreement on the causes of endometriosis, its treatment is still a challenging task. To manage the symptoms of endometriosis, strategies such as modification of lifestyles, better education for all healthcare personnel, school-based teaching, support groups, and post-diagnosis healthcare should be offered. Doing so will not only help them enhance their mental health but also improve their quality-of-life simultaneously.

## Authors' Contribution

Payal Chandel- Conceptualization, Formal analysis, Methodology, Project administration, Supervision, Writing – review & editing.  
 Pawan Kumar Maurya- Conceptualization, Supervision, Investigation, Methodology, Writing – review & editing.  
 Sajad Hussain- Conceptualization, Writing – original draft, Formal analysis, Writing – review & editing Project administration.

Divya Vashistha- Conceptualization, Writing – review & editing, Writing – original draft, Methodology, Project administration.  
Shreya Sharma- Conceptualization, Writing – original draft.

## Statement of Ethics

This research paper adheres to a rigorous code of ethics to ensure the highest standards of integrity and transparency. This research paper adheres to the ethical guidelines and regulations for review paper set forth by relevant institutions, professional associations, and regulatory bodies.

## Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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