## Repercussions On The Work Activity Of Women Undergoing Pharmacological Treatment For Endometriosis

Repercussões na Atividade Laboral de Mulheres Em Tratamento Farmacológico Para a Endometriose Repercusiones En La Actividad Laboral De Las Mujeres En Tratamiento Farmacológico Para La Endometriosis

#### RESUMO

Objetivo: O estudo visa analisar o impacto laboral de indicações farmacológicas não recomendadas no tratamento da endometriose. Método: A pesquisa foi realizada em dois momentos, (1) levantamento de dados e disposição das variáveis para análise em planilha própria e (2) levantamento dos dados de forma exploratória e confrontação com literatura científica. Resultado: No total de 374 mulheres portadoras de endometriose incluídas na amostra, 234 pacientes apresentavam a farmacoterapia recomendada (FR) e 140 farmacoterapia não recomendada (FNR), sendo 1 em estágios I e II e 139 nos estágios III e IV. Analisou-se que a maioria das pacientes que fazem uso de FNR estão nos estágios mais avançados da doença e sofrem majoritariamente com impacto no trabalho ou estudo. Conclusão: A dificuldade de acesso ao diagnóstico precoce e tratamento adequado são contribuintes para piora do quadro. Torna-se imprescindível a avaliação do diagnóstico com escolha farmacológica cientificamente recomendada, visando uma terapêutica eficaz.

DESCRITORES: Endometriose; Tratamento farmacológico; Desempenho profissional.

### ABSTRACT

Objective: The study aims to analyze the labor impact of non-recommended pharmacological indications in the treatment of endometriosis. Method: The research was conducted in two stages: (1) data collection and arrangement of variables for analysis in a specific spreadsheet and (2) exploratory data collection and comparison with scientific literature. Result: Of the 374 women with endometriosis included in the sample, 234 patients had recommended pharmacotherapy (RP) and 140 had non-recommended pharmacotherapy (NRP), 1 in stages I and II and 139 in stages III and IV. It was analyzed that most patients who use NPR are in the more advanced stages of the disease and suffer mainly from impact on work or study. Conclusion: The difficulty in accessing early diagnosis and adequate treatment contributes to worsening of the condition. It is essential to evaluate the diagnosis with scientifically recommended pharmacological choice, aiming at effective therapy.

DESCRIPTORS: Endometriosis; Pharmacological treatment; Professional performance.

#### RESUMEN

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Objetivo: Este estudio pretende analizar el impacto de las indicaciones farmacológicas no recomendadas en el tratamiento de la endometriosis. Método: La investigación se llevó a cabo en dos etapas: (1) recogida de datos y ordenación de variables para su análisis en una hoja de cálculo y (2) recogida de datos exploratoria y comparación con la literatura científica. Resultados: De las 374 mujeres con endometriosis incluidas en la muestra, 234 tenían la farmacoterapia recomendada (FR) y 140 la farmacoterapia no recomendada (FNR), con 1 en estadios I y II y 139 en estadios III y IV. Se analizó que la mayoría de los pacientes que utilizan NRP se encuentran en los estadios más avanzados de la enfermedad y sufren sobre todo un impacto en el trabajo o los estudios. Conclusión: La dificultad para acceder a un diagnóstico precoz y a un tratamiento adecuado contribuye al empeoramiento de la enfermedad. Es fundamental evaluar el diagnóstico con una elección farmacológica científicamente recomendada, con vistas a una terapia eficaz.

**DESCRIPTORES:** Endometriosis; Tratamiento farmacológico; Desempeño profesional.

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### INTRODUCTION

ndometriosis, known as the modern woman's disease <sup>(1)</sup>, is described by the Brazilian Federation of Gynecology and Obstetrics Associations (FEBRASGO) as an estrogen-dependent disease, whose pathophysiology is attributed to the growth of glands and/or stroma outside the uterine cavity. <sup>(2, 3)</sup> This multifactorial disease totaled 119,467 hospitalizations between 2013 and 2022 in Brazil. <sup>(4)</sup> Among the various symptoms are chronic pelvic pain (CPP), infertility, dysmenorrhea, dyspareunia and menstrual irregularity, responsible for the decline in patients' quality of life and vulnerability to the development of psychological disorders. <sup>(23)</sup>

This pathology is strongly linked to the patient's standard of living, including: early menarche, late pregnancies, a long period of time between the first menstruation and the first pregnancy, overweight and obesity. <sup>(5)</sup> In addition to being devastating for some of its sufferers, endometriosis has no cure. <sup>(1)</sup> Its treatment is based on long-term analgesia and reduction of endometriotic lesions. To choose the appropriate treatment, the patient's age, symptoms, reproductive desires and the stage of the disease must be taken into account, with endometriosis manifesting it-

self in four stages, according to the number of lesions. Medications include danazol, combined oral contraceptives, progestogens and gonadotropin-releasing hormone (GnRH) analogues, with symptomatic stages I and II being preferably treated with NSAIDs and/ or contraceptives and stages III and IV with GnRH analogues. Surgical options include laparotomy and laparoscopy, which can be conservative or radical.<sup>(2)</sup>

In view of the above, the question is: regarding the indication of medications in their respective stages, are the recommendations followed? What is the quality of life of these women? This study aims to understand and analyze the difficulties in improving the quality of life of women with endometriosis, framing the research theme in the third Sustainable Development Goal (SDG), "Health and Well-Being".

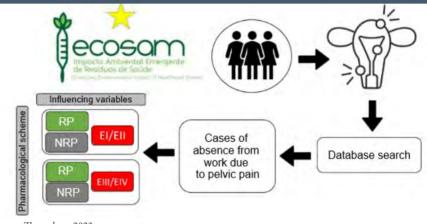
The importance of the study is based on the decline in the quality of life of these women and their predisposition to physical and psychological suffering. It has already been demonstrated that depression, anxiety and stress are intensely present in patients with endometriosis with or without CPP, but even more so in those with CPP2. In the case-control study carried out with 54 women with CPP in the case group and 150 women in the control group by the postgraduate program in Maternal and Child Health of the Federal University of Maranhão, a prevalence of stress in the case group of 59.26% was found, while mild anxiety accounted for 35.10% and mild depression for 50% of those studied. (6)

Therefore, when realizing the difficulties faced by women with this diagnosis, multidisciplinary monitoring is expected, starting with primary care at Basic Health Units (UBS - Unidades Básicas de Saúde). More studies are needed to simplify the diagnosis and develop more effective therapeutic methods, along with assertive indication of medications for each stage of the disease and greater visibility of Women's Health, so that self-knowledge allows these patients to seek medical help when they notice any typical symptoms of the condition.

### Study outline

This research was carried out through a retrospective observational study of secondary data analysis from a database to analyze women with endometriosis during menarche (the period between menarche and menopause). It was a survey of the pharmacological treatments performed by the patients in the sample and the impact of the disease on their work activity.

Figura 1: Survey and analysis of the studied sample. RP: Recommended pharmacotherapy; NRP: Non-recommended Pharmacotherapy; E: Stages of endometriosis.



Source: The authors, 2023.

### Ethical issues in research

As it involves human beings, the legislation in force in Brazil was respected, and the present project was submitted to the Research Ethics Committee (REC) of UNI-VILLE, being assessed and evaluated as approved, obtaining approval protocol with CAAE registration 26897619.2.0000.5366.

### Population and sample definition

The study population consisted of women with endometriosis during their premenstrual period. Women using only non-pharmacological therapies were excluded.

#### **Research development**

A retrospective observational study was conducted, analyzing documents from forms completed by patients in the sample, in which data were obtained from database analysis. The data and information collected corresponded to: use of pharmacological therapy, stage of the disease, whether or not appropriate therapy for the stage was used, type of treatment, and number of absences from work due to pelvic pain caused by endometriosis.

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### **Data collection**

Patient data collection was performed using an online form. Data were recorded on a standard form developed by the researchers from May to August 2022. The data were

#### METHOD

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then plotted in an Excel<sup>®</sup> spreadsheet and grouped according to the study variables previously identified.

### Data analysis

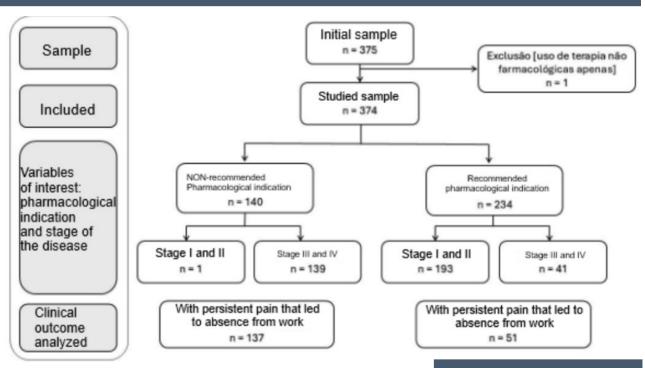
Survey of patients diagnosed with Endometriosis, registered in the Project Database, obtained through questionnaires applied to women with the diagnosis. These were grouped into stages of similar pharmacological treatments (EI/EII and EIII/EIV). Reported absence from work due to pelvic pain (PP) resulting from endometriosis was the dependent variable under study. The independent (or influencing) variables were [1] Stage of the disease, [2] Recommended (RP) or non-recommended (NRP) pharmacotherapy and [3] drug regimen employed (classes and combinations). Statistics were performed using chi-square and Fisher's projection.

### RESULTS

The initial sample consisted of 375 patients, of whom 1 was excluded due to the use of non-pharmacological therapies. Therefore, 374 women were included in the study. The dependent variable of the study was the report of absence from work or study due to pelvic pain resulting from endometriosis. In the sample, 188 women presented the variable and 186 did not. Among those whose work activity was affected by endometriosis, 51 were classified as stages I and II and 137 as stages III and IV (Figure 2).

Among the sample, 234 patients were on recommended pharmacotherapy (RP), of which 193 were in stages I and II and 41 were in stages III and IV, and 140 were on non-recommended pharmacotherapy (NRP), 1 in stages I and II and 139 in stages III and IV. The group with the most cases of absence from work due to pelvic pain was the group with NRP, with 137 patients.

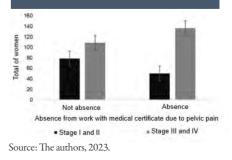




#### Source: The authors, 2023.

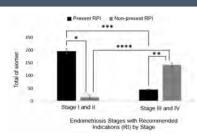
Therefore, it is possible to analyze that the majority of patients who use non-recommended therapy are in the most advanced stages of the disease and are those who suffer the most from the impact on work or study (Figures 3a and 3b). This may be related to greater difficulty in accessing medications for pharmacotherapy recommended for patients in the advanced stages of endometriosis, as they are controlled, expensive and more bureaucratic in accessing them through the Unified Health System (SUS), in addition to the diagnostic difficulty. From this, the use of pharmacotherapies that are inappropriate for the patient's case leads to ineffective treatment and loss of quality of life.

# Figure 3a: NRP cases are more present in EIII/EIV, with 90% of cases (95% CI, p<0.05)



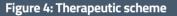
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Figure 3b: Absence from work was 72.9% higher in the group of women in EIII/EIV (95% CI, p<0.05)



Source: The authors, 2023.

When analyzing the use of each pharmacotherapy individually, there is a predominance of the use of NSAIDs as monotherapy. However, in 65% of cases, their use is inappropriate for the stage (95% CI, p<0.05) (Figure 4). This may be related to the ease of access to these medications; however, this is not the most indicated treatment, as it is only symptomatic and does not modify the course of the disease or interrupt its progression. We must also consider the side effects of their long-term use.





Source: The authors, 2023.

### DISCUSSION

### Quality of life of women with endometriosis

Endometriosis is a benign, chronic gynecological condition that can be defined by the presence of extrauterine endometrial tissue, which can affect several sites, including the ovaries, peritoneum, uterosacral ligaments, retrocervical region, retrovaginal septum, sigmoid rectum, terminal ileum, appendix, bladder and ureters. <sup>(7)</sup> When it comes to chronic pathologies, such as endometriosis, it is understood that they are considered long-term illnesses that do not resolve spontaneously. These pathologies interfere with the subject's daily life, which consequently causes a decrease in their daily activities and vitality, as well as in family, social and work relationships. <sup>(8)</sup> Thus, it is clear how limiting the endometriosis condition can be. It is observed that the pain associated with the disease and the difficulties in regulating emotions result in an increase in psychological stress that is negatively correlated with low quality of life, resulting in problems with sexual functioning, quality of the relationship with the partner, mood, work and social role.<sup>(9)</sup>

This disease is associated with great physical and emotional morbidity, mainly related to dyspareunia, dysmenorrhea, chronic pelvic pain, infertility, as well as cyclical intestinal and urinary changes (10), therefore, the personal and sexual life of women with endometriosis is significantly affected by dyspareunia and pain.<sup>(11)</sup> Based on the study by Júnior et al (2020), it can be seen that the health of these women is related not only to organic aspects of the disease, such as its symptomatic manifestation, its extent and the time of presentation of symptoms, but also to psychosocial aspects. (12) Furthermore, depressive disorders are common among patients with endometriosis, even after diagnosis and treatment, and when not identified early, they can harm the clinical picture.<sup>(13)</sup>

### Thinking

about endometriosis as a disease that affects quality of life implies approaching the issue of women's health from a broader perspective. The World Health Organization (WHO) considers health as a state of complete physical, mental and social well-being, not limited to the absence of disease. For women with endometriosis, pain plays a major role, being described as being very intense, suffering and capable of leading to withdrawal from social, professional and family life and even robbing them of their autonomy. However, having quality of life means having autonomy. <sup>(14)</sup>

### Risks and implications of non-recommended drug treatment for endometriosis

Endometriosis is known to be a benign gynecological condition, common in women of reproductive age or even in the postmenopausal phase. Therefore, although there are specific treatments for the disease, there is still an incidence of errors during diagnosis, which can compromise the patient's entire treatment, such as the lack of complementary exams to imaging and lack of fertility assessment.

Furthermore, because it is a disease treated as chronic, it is important to have continuous monitoring throughout the woman's reproductive age, aiming to improve symptoms and quality of life. <sup>(15)</sup>



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In addition, a new technique has been used as an aid to treatment, known as acupuncture, which consists of using needles at strategic points on the body, which restore or maintain organic functions, bringing benefits through homeostasis, which is the result of improved blood circulation in the brain and pain control in the central nervous system, thus having a low cost. <sup>(16)</sup>

Within this, it is possible to note that many of the patients who are in more advanced stages of the disease, such as stages III and IV, present a greater risk of using inappropriate medications, due to the lack of easy access through the Unified Health System (SUS), cost of medication and diagnoses by specialists in the subject, who would indicate the most appropriate treatment for each case, taking into account the main symptoms reported, severity of the stage, age, intensity and the desire for motherhood.<sup>(17)</sup>

Therefore, treatment for Endometriosis is essential, given that neglecting treatment can cause severe harm to those suffering from the disease, such as the return of common symptoms or even hydronephrosis, characterized by obstruction of the pathways that connect the kidney to the bladder, infertility, social and sexual life, and impairment of the professional life of these women.<sup>(18)</sup> **Compromise of the professional life of women undergoing non-rec**-

### ommended pharmacological treatment for endometriosis

Given that late diagnosis and non-recommended pharmacological treatment can worsen the condition, endometriosis is complex and has a significant impact on the psychological well-being, quality of life and interpersonal relationships of affected patients.

As the disease progresses naturally, symptoms can impair the patient's ability to perform their daily activities. Thus, symptoms associated with endometriosis can directly affect the work of these women, in this context we can mention the factors highlighted as pelvic pain, depression, anxiety, personal and financial quality of life. These determinants end up resulting in absenteeism, often making women feel embarrassed and vulnerable in the work environment where they are inserted. In addition, discriminatory situations even lead to the termination of employment relationships.

An epidemiological study analyzing the epidemiological profile of hospitalizations due to endometriosis in Brazil. from 2013 to 2022, identified that the age group with the highest number of hospitalizations was 40 to 49 years old and the average length of stay was 2.4 days. <sup>(4)</sup> Given the above, it is clear that the impact on women's lives and daily routines can result in loss of work. The main global study on the subject, Endo-Cost, states that women with endometriosis pain lose up to 11 hours of work per week and that 38% of women who have the condition experience greater loss of productivity compared to those who do not.

### **Final opinion**

The study of pharmacological treatment in women with endometriosis demonstrated that there is an association between the use of inappropriate therapy and a higher risk of absence from work. Stages III and IV are the groups with the highest prevalence of the use of non-recommended pharmacological therapy.

Among these patients, the difficulty in accessing early diagnosis and appropriate treatment are the main factors contributing to the progression of the disease and the consequent worsening of the clinical condition, affecting the patient's quality of life and bringing about other factors that affect the patient's health, such as mood swings and depression.

Because the choice of pharmacological treatment and occasional failures in therapy contribute to the ineffectiveness of the patients' working life, the therapeutic decision addressed directly interferes with the patient's physical, psychological and economic health.

### CONCLUSION

The quality of life of the women in the study, especially in stages II and IV, is severely impaired, impacting their work lives due to absences from work. This is a result of the difficulty in diagnosis and the consequent use of ineffective pharmacological therapies. Therefore, a satisfactory assessment of the diagnosis is essential, with subsequent scientifically recommended pharmacological choice, aiming at an effective therapy for each patient's case, as well as adequate guidance on treatment due to the significant impact that such intervention has on the lives of women with endometriosis.

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