

**FIBROMYALGIA: HORMONAL AND SOCIAL ASPECTS** <https://doi.org/10.63330/aurumpub.034-006>

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**Abstract**

Fibromyalgia is a chronic syndrome characterized by widespread musculoskeletal pain, persistent fatigue, and cognitive and emotional disturbances, predominantly affecting women of working age. This chapter aims to analyze the main hormonal and social aspects associated with fibromyalgia, highlighting their influence on symptom onset, severity, and management. The methodology consisted of a narrative literature review based on national and international studies published in recognized scientific databases, addressing hormonal alterations—such as dysfunctions of the hypothalamicpituitary-adrenal axis, estrogen, cortisol, and serotonin—and social determinants of health, including gender, stigma, socioeconomic conditions, and social support. The results indicate that hormonal imbalances contribute to pain amplification and to mood and sleep disturbances, while social factors directly affect access to diagnosis, treatment adherence, and quality of life. It is concluded that fibromyalgia should be understood

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from a biopsychosocial perspective, emphasizing the importance of integrating clinical, hormonal, and social approaches to ensure more effective and humanized care.

**Keywords:** Chronic pain, Fibromyalgia, Hormonal aspects, Social determinants, Women's health.

### INTRODUCTION

Fibromyalgia is a chronic clinical syndrome characterized by diffuse musculoskeletal pain, accompanied by fatigue, sleep disturbances, cognitive alterations, and emotional symptoms. Recognized by the World Health Organization as a condition that significantly affects functionality and quality of life, fibromyalgia has a higher prevalence among women—especially those of working age—which underscores the relevance of investigating it within the fields of public and clinical health. Despite scientific advances, its diagnosis and management still pose challenges due to the complexity of the pathophysiological mechanisms involved and the absence of specific laboratory markers.

In this context, the research problem guiding this chapter is to understand how hormonal and social aspects influence the manifestation, the intensification of symptoms, and health care for people with fibromyalgia. Scientific evidence indicates that hormonal alterations—especially those related to the hypothalamic–pituitary–adrenal axis, sex hormones, and neurotransmitters—are associated with social factors such as gender, stigmatization, socioeconomic conditions, and access to health services, composing a multifactorial scenario that directly affects the course of the disease.

The general objective of this chapter is to analyze fibromyalgia from the perspective of hormonal and social aspects. As specific objectives, it seeks to: describe the main hormonal mechanisms associated with the syndrome; discuss the influence of social determinants of health on the experience of fibromyalgia; and reflect on the importance of a biopsychosocial approach in the care of affected individuals.

The justification for developing this chapter is grounded in the need to broaden the understanding of fibromyalgia beyond the traditional biomedical model, promoting an integrated view that supports earlier diagnoses, more effective therapeutic strategies, and humanized care practices. In addition, the

theme contributes to strengthening public policies and interdisciplinary actions directed toward women's health.

From a theoretical standpoint, contemporary studies indicate that fibromyalgia is related to alterations in pain modulation, neuroendocrine dysfunctions, and low-grade inflammatory processes, associated with psychosocial factors. Authors such as Clauw, Wolfe, and Häuser argue for understanding the syndrome as a multifactorial condition, reinforcing the importance of integrating biological, hormonal, and social aspects for appropriate disease management.

## **METHODOLOGY**

### **TYPE OF RESEARCH**

This chapter is characterized as qualitative research of an exploratory and descriptive nature, grounded in a narrative review of the scientific literature. This approach was chosen because it allows an integrated and critical analysis of existing knowledge about fibromyalgia, with an emphasis on hormonal and social aspects, enabling a broad and contextualized understanding of the phenomenon under study.

### **SEARCH STRATEGY AND STUDY SELECTION**

The bibliographic search was conducted in recognized scientific databases, including SciELO, PubMed/MEDLINE, and Google Scholar. Controlled and uncontrolled descriptors were used, in Portuguese and English, such as "fibromyalgia," "hormonal aspects," "hypothalamic–pituitary–adrenal axis," "social determinants of health," and "chronic pain," combined using the Boolean operators AND and OR. As inclusion criteria, studies published in recent years, available in full text, and addressing—directly or indirectly—the relationship among fibromyalgia, hormones, and social factors were considered. Duplicate articles, studies with an exclusively pharmacological focus, and publications without clearly described methodological rigor were excluded.

## INSTRUMENTS AND DATA ANALYSIS TECHNIQUES

The selected studies were organized through exploratory, analytical, and interpretative reading. As an analysis instrument, a data extraction matrix was used, including information such as authors, year of publication, objectives, main findings, and theoretical contributions. The analysis technique adopted was thematic analysis, allowing the identification of categories related to the hormonal and social aspects of fibromyalgia, as well as their interrelationships.

## SAMPLE AND STUDY CORPUS

The study sample consisted of scientific articles, book chapters, and relevant institutional documents that met the established inclusion criteria. The final corpus represented different fields of knowledge, such as medicine, nursing, psychology, and public health, ensuring an interdisciplinary approach consistent with the chapter's proposal.

## METHODOLOGICAL FOUNDATION AND SCIENTIFIC RIGOR

The choice of a narrative review is justified by the complexity of fibromyalgia and the need to integrate different theoretical and empirical perspectives. Although it does not aim at statistical generalization, this methodology enables the critical systematization of evidence, contributing to the construction of consistent theoretical reflections. Scientific rigor was ensured by the use of reliable sources, by transparent description of the study selection process, and by analysis grounded in specialized literature.

## RESULTS AND DISCUSSION

The analysis of the selected literature made it possible to identify consistent evidence that fibromyalgia is a multifactorial condition in which hormonal and social aspects exert significant influence on the genesis, symptom intensity, and functional impact of the syndrome. The analyzed studies converge

on the understanding of fibromyalgia as a disorder of central pain processing, associated with neuroendocrine dysfunctions and with social determinants of health.

## HORMONAL ASPECTS ASSOCIATED WITH FIBROMYALGIA

The results indicate that alterations in the hypothalamic–pituitary–adrenal (HPA) axis are frequently present in people with fibromyalgia, characterizing an inadequate response to chronic stress. Altered cortisol levels—especially patterns of hypocortisolism—have been associated with pain amplification, persistent fatigue, and sleep disturbances. In addition, studies point to the participation of sex hormones, particularly estrogen, in pain modulation, which may explain the higher prevalence of the syndrome in women.

Alterations in neurotransmitters such as serotonin and dopamine were also identified as relevant, since they influence both endogenous analgesia mechanisms and mood and sleep. These findings corroborate research that describes fibromyalgia as a condition of neuroendocrine dysregulation, reinforcing the need for therapeutic approaches that take such biological mechanisms into account.

## SOCIAL DETERMINANTS AND PSYCHOSOCIAL IMPACT

In the social sphere, the results show that factors such as gender, stigmatization of chronic pain, unfavorable socioeconomic conditions, and difficulties accessing health services directly interfere with the experience of fibromyalgia. The literature highlights that the invisibility of symptoms and the lack of social and professional recognition contribute to diagnostic delay and to the emotional suffering of affected individuals.

Furthermore, studies indicate that the overload of social roles—especially among women—associated with double work shifts and family responsibilities intensifies stress and may aggravate symptoms. Insufficient social support and limited understanding of the disease in family and workplace

environments are related to poorer quality of life and a higher prevalence of depressive and anxious symptoms.

### INTEGRATION OF FINDINGS: A BIOPSYCHOSOCIAL PERSPECTIVE

The integrated discussion of the results reinforces the need to understand fibromyalgia from a biopsychosocial perspective. The interaction between hormonal imbalances and social factors creates a feedback cycle that contributes to pain chronicity and functional limitation. Authors such as Clauw, Häuser, and Wolfe argue that isolated interventions are insufficient; thus, it is essential to articulate pharmacological treatment, psychological support, health education, and strategies to strengthen social support.

Although this chapter does not present tables or figures, the findings could be systematized—according to editorial standards—into comparative charts linking hormonal aspects, social determinants, and clinical impacts, facilitating the visualization and practical application of the knowledge produced.

### CONCLUSION

This chapter aimed to analyze fibromyalgia from the standpoint of its hormonal and social aspects, seeking to understand how these factors influence the manifestation, the intensification of symptoms, and health care for people affected by the syndrome. Revisiting this objective highlights the need to move beyond exclusively biomedical approaches, considering the complexity and multifactorial nature that characterize fibromyalgia.

The main results indicate that hormonal alterations—especially dysfunctions of the hypothalamic–pituitary–adrenal axis and imbalances in cortisol, estrogen, and neurotransmitter levels—play a relevant role in modulating pain, fatigue, and sleep disturbances. In parallel, social aspects such as gender, stigmatization of chronic pain, socioeconomic conditions, and access to health services directly affect diagnosis, adherence to treatment, and quality of life for individuals with fibromyalgia.

As a contribution, this chapter reinforces the importance of the biopsychosocial approach in the management of fibromyalgia, offering theoretical support for health professionals, researchers, and managers in developing more integrated and humanized clinical practices. The proposed discussion broadens the understanding of the syndrome by valuing the interaction among biological, hormonal, and social factors, and contributes to strengthening public policies and interdisciplinary care strategies.

For future research, empirical and longitudinal studies are suggested to further examine the relationship between hormonal variations and social determinants, as well as investigations that evaluate multiprofessional interventions and their impacts on the quality of life of people with fibromyalgia. These initiatives may contribute to improving strategies for prevention, diagnosis, and treatment of the syndrome.

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