



## **Evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases**

### **Avaliação e tratamento de transtornos de ansiedade em crianças e adolescentes com doenças endócrinas**

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#### **ABSTRACT**

Anxiety disorders represent one of the most common psychiatric conditions in children and adolescents, significantly affecting their quality of life, social functioning, and academic performance. These disorders are characterized by the presence of excessive fear, persistent worry, and physical manifestations of anxiety, such as tachycardia, sweating, and muscle tension. Anxiety in children and adolescents can be even more complex when it is associated with endocrine disorders such as type 1 diabetes, thyroid disorders, and Cushing's syndrome.

**Keywords:** Treatment, Anxiety, Disorders, Children and Adolescents, Endocrine Diseases.

#### **RESUMO**

Os transtornos de ansiedade representam uma das condições psiquiátricas mais comuns em crianças e adolescentes, afetando significativamente sua qualidade de vida, funcionamento social e desempenho acadêmico. Esses transtornos são caracterizados pela presença de medo excessivo, preocupação persistente e manifestações físicas de ansiedade, como taquicardia, sudorese e tensão muscular. A ansiedade em crianças e adolescentes pode ser ainda mais complexa quando está associada a doenças endócrinas, como diabetes tipo 1, distúrbios da tireoide e síndrome de Cushing.

**Palavras-chave:** Tratamento, Ansiedade, Transtorno, Crianças e Adolescentes, Doenças Endócrinas.



## **1 INTRODUCTION**

Anxiety disorders represent one of the most common psychiatric conditions in children and adolescents, significantly affecting their quality of life, social functioning, and academic performance. These disorders are characterized by the presence of excessive fear, persistent worry, and physical manifestations of anxiety, such as tachycardia, sweating, and muscle tension. Anxiety in children and adolescents can be even more complex when it is associated with endocrine disorders such as type 1 diabetes, thyroid disorders, and Cushing's syndrome.

Endocrine diseases are chronic medical conditions that affect the hormonal system of the body, interfering with the regulation of metabolic and hormonal processes. These conditions can trigger physiological and psychological changes that contribute to the development of anxiety disorders in children and adolescents. For example, type 1 diabetes requires constant care, blood glucose monitoring, and insulin administration, which can generate concern and fear in affected children and adolescents. Similarly, thyroid disorders can cause hormonal imbalances that directly impact mood and emotional well-being.

Proper evaluation and treatment of anxiety disorders in children and adolescents with endocrine disorders are essential to ensure a comprehensive approach to the health of these patients. Early identification of symptoms, understanding of the complexities of the interaction between endocrine condition and anxiety, as well as the implementation of effective therapeutic interventions, are fundamental to promote the emotional and physical well-being of these young people.

By understanding the intersection between endocrine diseases and anxiety disorders in children and adolescents, it is hoped that health professionals can provide more comprehensive and effective care, considering the specific needs of this population. In addition, the review may contribute to the development of new intervention strategies and guide future research in the field of clinical psychology and pediatric endocrinology.

## **2 GOAL**

This systematic review of the literature aims to explore the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases. Recent studies addressing assessment strategies, diagnosis and therapeutic interventions aimed at this specific population will be examined. The review seeks to provide a comprehensive view on the topic, identify knowledge gaps and highlight the importance of appropriate and personalized interventions to improve the quality of life of these young patients.



### **3 METHODOLOGY**

This systematic review followed the guidelines of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). A systematic search was performed in the databases PubMed, Embase, Scopus, Web of Science and Cochrane Library, using the following descriptors: "anxiety disorders", "children", "adolescents", "endocrine diseases", "evaluation" and "treatment". The inclusion criteria were: studies published in the last 10 years, articles written in English, studies that evaluated anxiety disorders in children and adolescents with endocrine diseases, and studies that addressed evaluation and treatment strategies. Studies that did not meet the inclusion criteria and duplicate studies were excluded.

### **4 DEVELOPMENT**

Initially, 120 articles relevant to the systematic review were identified, based on the search in the selected databases. After applying the inclusion and exclusion criteria, a total of 15 articles were selected for detailed analysis.

The studies analyzed highlighted the importance of a comprehensive assessment of anxiety disorders in children and adolescents with endocrine diseases. The health team should consider not only the symptoms of anxiety, but also the severity of the symptoms, the interference with daily activities and the presence of comorbidities. In addition, it is essential to conduct a specific evaluation of the underlying endocrine disease and its effects on hormonal balance since this can play a significant role in the development and manifestation of anxiety disorders.

They also highlighted that the treatment of anxiety disorders in children and adolescents with endocrine diseases should be approached in an integrated and multidisciplinary manner. Psychotherapeutic interventions, such as cognitive-behavioral therapy, have been shown to be effective in managing anxiety symptoms and promoting healthy coping strategies. Cognitive behavioral therapy allows patients to identify and challenge negative thought patterns and develop skills for dealing with anxiety.

In addition, pharmacotherapy may be considered in more severe cases or when therapy is not sufficient to control anxiety symptoms. However, it is important to point out that the use of medications should be carefully monitored and prescribed by a specialized doctor, taking into account the potential side effects and interactions with endocrine medication.

The results of the reviewed studies emphasize the importance of cognitive behavioral therapy as a first-line intervention in the treatment of anxiety disorders in children and adolescents with endocrine disorders. This therapeutic approach assists patients in identifying and modifying negative and distorted thoughts, as well as in developing healthy coping skills. Cognitive-behavioral therapy has been shown to be effective in reducing anxiety symptoms and increasing the coping capacity of these young patients.



However, it is important to note that in more severe cases or when cognitive behavioral therapy is not enough, pharmacotherapy may be considered. Medications such as selective serotonin reuptake inhibitors (SSRIs) have been used successfully in the treatment of anxiety disorders in children and adolescents. However, the prescription of these medications should be carefully monitored by a specialized professional, taking into account the possible side effects and interactions with the endocrine medication.

The importance of family and school support is a recurrent aspect in the reviewed studies. The active participation of parents or guardians, along with the collaboration of teachers and education professionals, plays a crucial role in the management of anxiety disorders. Education of parents about anxiety disorders and endocrine diseases, as well as awareness of teachers about the specific needs of these young patients, can provide an environment of support and understanding during treatment.

Another emphasis was on the importance of family and school support in the evaluation and treatment process. Active involvement of parents or guardians, as well as collaboration with teachers and education professionals, can contribute to the effective management of anxiety and provide an appropriate supportive environment. Education of parents and caregivers about anxiety disorders and endocrine disorders is essential so that they can understand and support their children during treatment.

However, the current literature pointed to the need for more research in this specific area. The relationship between endocrine disorders and anxiety disorders in children and adolescents is still complex and requires further study for further understanding. In addition, more research is needed to investigate the efficacy of specific therapeutic interventions tailored to the needs of this population.

In conclusion, the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases are crucial aspects to promote the emotional and physical well-being of these young patients. The multidisciplinary approach, including psychotherapeutic and pharmacological interventions, shows promise in the management of anxiety symptoms. Comprehensive evaluation, considering both the emotional aspects and the effects of endocrine diseases, is critical for effective treatment.

Despite advances in the understanding and treatment of anxiety disorders in children and adolescents with endocrine diseases, there are significant knowledge gaps. The complexity of this interaction between endocrine health and mental health requires further research to deepen our understanding of the underlying mechanisms, risk factors, and better treatment strategies. Longitudinal studies and randomized controlled trials are needed to evaluate the efficacy and safety of specific therapeutic interventions in this population.

In short, the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases are extremely important to ensure the physical and emotional well-being of these patients. The integrated approach, considering the medical and psychological dimensions, is fundamental for an effective treatment. Cognitive-behavioral therapy, pharmacotherapy, family and school support are key elements in addressing these disorders. However, additional research is needed to advance the understanding and



development of more personalized and effective approaches to the management of anxiety disorders in children and adolescents with endocrine disorders.

In addition, it is important to consider that therapeutic interventions should be tailored to the individual needs of each patient. Children and adolescents with endocrine diseases may face specific challenges, such as hormonal fluctuations, concerns about physical appearance, stress related to medical exams, and impact on quality of life. Therefore, a sensitive and personalized approach is essential to meet the needs of these young patients.

It is worth mentioning that the presence of anxiety disorders in children and adolescents with endocrine diseases can negatively affect the management of endocrine disease itself. Anxiety can lead to lack of adherence to treatment, make it difficult to control symptoms and interfere with proper medical follow-up. Therefore, early identification and proper treatment of anxiety disorders are critical not only for mental well-being, but also for overall health and effective management of endocrine diseases.

Thus, the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases are essential to promote the mental health and well-being of these patients. The integrated approach, involving mental health professionals, endocrinologists, parents and educators, plays a key role in the identification, treatment and adequate follow-up of these disorders. However, there is a need for more research and clinical studies to improve our understanding of the underlying mechanisms, enhance therapeutic interventions, and provide solid evidence to guide clinical practice in this specific area. The attention and care dedicated to these young patients will contribute to their quality of life, as well as to the effective management of their endocrine diseases.

## **5 FINAL CONSIDERATIONS**

In conclusion, the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases represent a complex and extremely important challenge for health professionals. This specific population faces a unique interaction between endocrine health and mental health, which requires an integrated, multidisciplinary approach.

The literature studied emphasizes the need for a comprehensive evaluation, taking into account both medical and emotional aspects. The early identification of anxiety disorders and their association with endocrine diseases are essential for effective treatment and a better quality of life for these young patients. First-line therapeutic intervention, such as cognitive behavioral therapy, has been shown to be effective in reducing anxiety symptoms and developing healthy coping skills.

In addition, the importance of family and school support cannot be underestimated. The active participation of parents, together with the awareness of teachers about the specific needs of these patients, contributes significantly to the success of treatment. Parent education, the creation of a supportive



environment, and collaboration with medical staff are critical to the proper management of anxiety disorders.

Although there are advances in understanding and treating these disorders, there are significant knowledge gaps. More research is needed to deepen our understanding of the underlying mechanisms, specific risk factors, and efficacy of specific therapeutic interventions in this population. Longitudinal studies and randomized controlled trials are needed to provide solid evidence and guide clinical practice.

In summary, the evaluation and treatment of anxiety disorders in children and adolescents with endocrine diseases demand an integrated, personalized and multidisciplinary approach. Early identification, appropriate therapeutic intervention, family and school support are essential elements to improve the mental health and quality of life of these patients. With a continued focus on research and improving interventions, we can deliver more effective care and improve the overall well-being of these young people.



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