

The Relationship Between Obesity and Neuropsychiatric Disorders: Prevalence, Neurobiology, and Clinical Practice

A Relação entre Obesidade e Perturbações Neuropsiquiátricas: Prevalência, Neurobiologia e Implicações Clínicas

Keywords: Mental Disorders/complications; Mental Disorders/etiology; Obesity/complications; Obesity/etiology

Palavras-chave: Obesidade/complicações; Obesidade/etiologia; Perturbações Mentais/complicações; Perturbações Mentais/etiologia

Dear Editor,

Obesity is a complex disorder that is influenced by a combination of genetic predisposition and environmental factors.¹ There is evidence that obesity can reduce life expectancy by approximately five to 20 years, which makes it a significant public health concern.²

The literature suggests a bidirectional relationship between obesity and psychiatric disorders.^{3,4} The etiology of obesity is multifactorial, involving sustained inflammation, endocrine disorders, and metabolic dysregulation.⁴ These disturbances have impact in the brain, leading to a neuro-inflammatory process.⁴ The progression of neurodegenerative processes may lead to irreversible lesions and a considerable reduction in neurons within both allocortical and isocortical areas.⁴

The changes in brain structure associated with obesity may contribute to the increased risk of psychiatric disorders (PDs). Obesity and PDs appear to be linked through a cycle of executive, cognitive and emotional dysfunction.^{3,4} The neuroendocrine dysfunction associated with obesity further compromises the ability to resist these influences, leading to a complex and irreversible psycho-physio-pathological scenario.^{3,4} The disorders most closely associated with this scenario include mood disorders, anxiety disorders, eating disorders and neurodevelopmental disorders.

Obesity is a recognized psychological stressor and is associated with problems such as physical morbidity, social exclusion, stigma, bullying and discrimination, all which act as stressors for PDs, particularly mood disorders (MDs).^{5,6}

The literature has shown a two-way relationship be-

tween MDs and obesity. Longitudinal studies have shown that obesity is associated with a 55% increased risk of developing depression, while patients with depression have a 60% increased risk of becoming obese.⁵ Furthermore, a meta-analysis showed the bidirectional link between bipolar disorder and obesity.⁶

Weight gain is a common side effect of many psychiatric drugs prescribed to treat MDs. This is particularly true for most antipsychotics and antidepressants. As well as causing weight gain, these drugs also affect the metabolism, making weight loss harder. It is therefore important to monitor weight regularly in patients with psychiatric disorders.

Clinicians need to be aware of the bidirectional relationship between obesity and psychiatric disorders.

It is essential to recognize that psychiatric disease and obesity are mutually reinforcing and that structured interventions are needed *ad initium* for both PDs and obesity to develop effective multidisciplinary strategies to prevent comorbidities. Potential strategies may include nutritional monitoring, evidence-based psychological therapies, and community-based preventive measures, which could be integrated into primary health care.

Psychiatrists and psychologists should be involved in the multidisciplinary management of obesity (before morbid levels) to prevent psychiatric comorbidities, just as nutritionists should monitor people with psychiatric conditions (under psychopharmacology) to avoid weight gain.

AUTHOR CONTRIBUTIONS

All authors contributed equally to this manuscript and approved the final version to be published.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

FUNDING SOURCES

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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Recebido/Received: 01/10/2024 - **Aceite/Accepted:** 21/10/2024 - **Publicado/Published:** 02/01/2025

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<https://doi.org/10.20344/amp.22385>

