


## SELF-MEDICATION WITH SEMAGLUTIDE FOR WEIGHT LOSS IN BRAZIL

 <https://doi.org/10.63330/aurumpub.044-007>

**Fernando Ramos Martins Pombeiro<sup>1</sup>, Andrea Gonçalves de Almeida<sup>2</sup>, Larissa dos Reis Oliveira<sup>3</sup>, Daniela Viana Maciel<sup>4</sup>, Bianca Correia dos Santos<sup>5</sup>, Larissa de Souza Araújo<sup>6</sup>, Matheus Sales Damásio de França<sup>7</sup>, Eduardo Caldas Ribeiro<sup>8</sup>, Thaís Maria dos Santos<sup>9</sup> and Gregório Otto Bento de Oliveira<sup>10</sup>**

**Abstract**

Self-medication has emerged as a public health problem in Brazil, especially in light of the increase in the use of semaglutide for aesthetic purposes and rapid weight loss. Originally indicated for the treatment of type 2 diabetes and clinical obesity, the substance began to be consumed indiscriminately, influenced by factors such as aesthetic pressure and the dissemination of information on social media. This scenario has raised concern regarding the risks arising from this practice, which range from gastrointestinal effects to serious complications, such as retinopathy and the risk of neoplasms. The present study aimed to analyze the risks of self-medication with semaglutide, highlighting its clinical, social, and ethical impacts. This is a qualitative and descriptive literature review, carried out through the analysis of scientific publications between 2018 and 2025, selected from national and international databases. The results demonstrated that self-medication increased the risks of adverse effects, reduced the appreciation of professional practice, and strengthened unsafe consumption practices. Furthermore, it was observed that broad media dissemination contributed to the trivialization of the medication and to the increase in its off-label use. It is concluded that self-medication with semaglutide requires greater regulatory attention, as well as

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<sup>1</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>2</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>3</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>4</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>5</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>6</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>7</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>8</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>9</sup> Faculdade Anhanguera de Brasília – FAB. DF

<sup>10</sup> Faculdade Anhanguera de Brasília – FAB. DF

strategies to raise public awareness and to enhance the value of professional guidance, in order to promote the rational use of medicines and prevent harm to collective health.

**Keywords:** Self-medication, Social media, Public health, Pharmacotherapy, Patient safety.

## INTRODUCTION

Obesity has become one of the main public health challenges in Brazil and worldwide, being responsible for significant impacts on quality of life and for increasing the incidence of chronic diseases. This condition, characterized by the excessive accumulation of body fat, involves biological, genetic, psychological, and social factors, going beyond the simple relationship between caloric intake and energy expenditure (Lima; Rinald; Andrade, 2024). In this context, the search for rapid solutions for weight loss intensified, leading to the growing consumption of medications with potential slimming effects. Among them, semaglutide stood out, initially developed for the treatment of type 2 diabetes, but used indiscriminately for aesthetic purposes due to its proven effect on reducing body weight (Trabulsi et al., 2023).

The wide dissemination of information through social media contributed to popularizing the use of semaglutide, encouraging self-medication. Studies demonstrated that media exposure, combined with the valorization of aesthetic standards, drove increased demand for weight-loss medications without proper professional guidance (Freitas; Baiense; Andrade, 2024). This phenomenon became even more concerning in light of the social pressure to value an ideal body, which historically has already led to the use of harmful weight-loss practices and which, in contemporary times, found in semaglutide an apparently effective alternative, yet one surrounded by risks (Santos; Deuner, 2024).

The practice of self-medication with semaglutide raised questions about its clinical, social, and ethical implications. Use outside approved indications (off-label) brought to light concerns about the limits of patient autonomy, the devaluation of health professionals, and possible harms related to consumption without a prescription. Evidence indicated that this behavior may provoke anything from

gastrointestinal reactions to more serious complications, such as retinopathy and the risk of thyroid cancer, when used over a prolonged period (Dias et al., 2023). Thus, the need emerged to investigate in depth the risks associated with the inappropriate use of the substance, especially in individuals without a clinical diagnosis of obesity or diabetes.

This research problem led to the formulation of the following guiding question: what are the main risks of self-medication with semaglutide for the health of the Brazilian population? This question proved relevant in light of the significant increase in the consumption of this drug and the evidence that its use in individuals outside the target population may intensify adverse effects, compromising patient safety (Andrade et al., 2023). The answer to this question became essential not only for the academic field, but also for health practice, since it made it possible to broaden the discussion on the conscious use of medicines and the need for professional follow-up.

In this way, the general objective of this research was to present the risks of self-medication with semaglutide in Brazil. As specific objectives, it sought to highlight the main harms to individual health resulting from inappropriate use and to identify the disseminating agents responsible for amplifying improper consumption. The relevance of the study was justified by the growth of self-medication with this drug, by the social and public health impact of its adverse effects, and by the need to raise public awareness regarding the rational use of medicines (Campos et al., 2024).

## **DEVELOPMENT**

### **METHODOLOGY**

The present research was characterized as a qualitative and descriptive literature review, developed from the analysis of scientific publications addressing the use of semaglutide, its effects related to weight loss, and the risks of self-medication. The time frame considered covered the period between 2018 and 2025, in order to include recent productions that reflected the advancement of discussions on the subject.

The inclusion criteria adopted were scientific articles, dissertations, theses, technical manuals, and institutional documents available in Portuguese and English that dealt directly with semaglutide, obesity, weight loss, off-label use, and possible adverse effects of the drug. Materials consisting only of abstracts, initial impressions, or opinion texts without a scientific basis were excluded.

Data collection was carried out in recognized scientific databases, such as Google Scholar, PubMed, SciELO, the Virtual Health Library (BVS), and the CAPES Journal Portal, in addition to official documents made available by regulatory bodies such as the Brazilian Health Regulatory Agency (Anvisa) and the World Health Organization (WHO). These sources were selected for their relevance and credibility, enabling a well-founded analysis of the object of study.

For the search, descriptors combined with Boolean operators (AND and OR) were used, among which the following stood out: “semaglutide,” “weight loss,” “obesity,” “self-medication,” “adverse effects,” and “off-label use.” The final selection of the works was made according to their relevance to the central objective of this research, ensuring consistency and methodological adequacy for the investigation.

## RESULTS AND DISCUSSION

Obesity was characterized as a complex and multifactorial condition, marked by the excessive accumulation of body fat. The reviewed studies highlighted that this disease could not be explained solely by high food consumption, but was related to genetic, biological, behavioral, and social factors. In addition, it was associated with an increased risk of type 2 diabetes, cardiovascular diseases, and functional difficulties, which reinforces its seriousness as a public health challenge (Lima; Rinald; Andrade, 2024).

Although it is widely recognized as a collective health problem, obesity has often been interpreted as an individual failure, associated with a lack of dietary discipline or the absence of regular physical activity. This reductionist view neglected determining factors and worsened the stigmatization of people

with excess weight. The need to revise this paradigm is reinforced, showing that the management of obesity requires public policies and integrated care strategies (Martins, 2018).

In the current context, aesthetic pressure has become a highly relevant factor in the adoption of rapid and, in many cases, unsafe weight-loss behaviors. The social standard that values thinness fostered the use of pharmacological alternatives without professional follow-up, such as semaglutide. Thus, it was observed that the search for the ideal body went beyond genuine concerns with health and well-being, favoring the growth of self-medication practices (Santos; Deuner, 2024).

It has been pointed out that social media played a central role in the popularization of semaglutide for aesthetic purposes. The dissemination of personal experiences, reports of accelerated weight loss, and the promotion of the medication as a quick solution were factors that encouraged its use without medical support (Mailhac et al., 2024). This process contributed to the spread of off-label consumption and to the increase in indiscriminate access to the substance, expanding the risks associated with self-medication (Freitas; Baiense; Andrade, 2024).

According to Freitas, Baiense, and Andrade (2024), the manipulative power of social media drives the pursuit of aesthetic standards and the indiscriminate use of weight-loss drugs. Although these medications may be effective, self-medication is dangerous due to the inherent adverse reactions. Therefore, medical follow-up is necessary for a rigorous risk-benefit assessment and for the prescription of appropriate treatment, thus ensuring the individual's safety.

The off-label use of this pharmacological agent, exacerbated by media influence and aesthetic demand, imposes an urgent regulatory challenge. Such a scenario increases the risk of self-medication and the omission of medical follow-up, potentially generating significant iatrogenic consequences. It is crucial that its administration be strictly mediated by a multidisciplinary team, ensuring rigorous supervision of treatment in order to optimize the safety-efficacy relationship within a context of appropriate and non-indiscriminate therapeutic indication (Campos et al., 2024).

From a pharmacological point of view, semaglutide belongs to the class of GLP-1 analogues, acting in glucose regulation, appetite reduction, and the control of caloric intake. These mechanisms explained its efficacy in weight loss and justified the growing demand for the medication. However, the same studies warned that the substance presented relevant adverse effects, especially when used without an appropriate clinical indication (Trabulsi et al., 2023).

The drug under analysis, semaglutide, demonstrates a significant satiating and anorexigenic effect, being effective in reducing appetite and promoting satiety, which supports its use in controlling excess weight in association with a lifestyle-modification program. Nevertheless, clinical evaluation must weigh the costs and the incidence of transient gastrointestinal adverse events, such as nausea and diarrhea (Andrade et al., 2023).

Also according to Andrade et al. (2023), it is further emphasized that, despite its efficacy, the assessment of long-term safety in obese nondiabetic individuals still requires further study, since the compound was initially approved for the treatment of Type 2 Diabetes Mellitus. Thus, its prescription requires a rigorous analysis of the individual risk-benefit profile. Continuous pharmacovigilance monitoring is imperative in order to optimize clinical outcomes.

Overweight and obesity, exacerbated by social and media-driven standards, motivate the search for pharmacological solutions for weight reduction. However, the indiscriminate use of Ozempic, originally intended for Type 2 Diabetes, may lead to serious complications, including gastrointestinal dysfunctions, pancreatitis, and the risk of hypoglycemia and neoplasms (Dias et al., 2023).

Among the observed effects, gastrointestinal symptoms such as nausea, diarrhea, and vomiting stood out, in addition to headaches and constipation (Dias et al., 2023). In more severe cases, prolonged use was associated with the risk of diabetic retinopathy and even neoplasms, such as thyroid cancer, which demonstrated the danger of the uncontrolled use of the drug (Silva; Simões; Ishiuchi, 2024). These findings reinforced the importance of professional follow-up in order to minimize risks and monitor patients.

Another point concerns the use of semaglutide by individuals with a low body mass index.

Research showed that, in such situations, the risks of adverse effects were potentially more severe, since the safety of the medication had not been robustly studied in this population. This finding highlighted the inadequacy of self-medication and the dangers of consumption motivated solely by aesthetic concerns (Andrade et al., 2023).

In addition, it was observed that the indiscriminate use of semaglutide could mask the real need for lifestyle changes, such as adopting balanced eating habits and engaging in regular physical activity. In this way, although the medication is effective, it did not replace long-term health-promotion strategies, which are fundamental for weight control and for improving quality of life (Naressi; Paludo, 2024).

The social and ethical aspects of self-medication include the devaluation of the role of health professionals and the absence of adequate follow-up (Linhares et al., 2024). Without the guidance of physicians and pharmacists, the risks of drug interactions, improper storage, and inappropriate dosage use increased significantly. In this scenario, the presence of the pharmacist was identified as essential for guidance and the safe use of medications (Nascimento, 2021).

The analysis of the studies showed that self-medication with semaglutide has become an expanding public health problem in Brazil. The phenomenon was driven by aesthetic pressure, by facilitated access to information on social media, and by the trivialization of the drug's risks. Thus, the review pointed to the urgent need for stricter regulation, associated with educational strategies, in order to ensure the rational and safe use of semaglutide, reducing the negative impacts of this practice on collective health (Campos et al., 2024).

## **CONCLUSION**

The present research made it possible to identify that self-medication with semaglutide in Brazil has become a growing and concerning phenomenon, driven by social, cultural, and media-related factors. The search for rapid weight loss, combined with the valorization of aesthetic standards, led to the

inappropriate use of the medication without proper professional follow-up. This scenario highlighted the seriousness of the practice and reinforced the need to raise public awareness about the risks involved.

The review demonstrated that, although semaglutide has proven efficacy in the treatment of type 2 diabetes and clinical obesity, its use outside these indications resulted in numerous health problems. The studies analyzed showed adverse effects ranging from gastrointestinal symptoms to serious complications, such as retinopathy and cancer risk, which reinforces the seriousness of self-medication without scientific support or specialized follow-up.

Another important point revealed by the review was the impact of social media on the dissemination of information about the medication. Some of the studies consulted highlighted that this digital environment has promoted a trivialization of risks, encouraging unsafe behaviors and strengthening the idea of quick solutions for weight loss. This finding brought to light the role of health communication and the need for strategies to combat misinformation.

It is important to emphasize, however, that this study presented limitations inherent to the literature review method. The analysis was restricted to secondary data, making direct clinical evaluation of patients who used semaglutide inappropriately impossible. Despite this, the reviewed literature proved sufficient to demonstrate the magnitude of the problem and to reinforce the relevance of the debate on self-medication in the national context.

It is recommended that future research advance in monitoring the use of semaglutide in different population contexts, analyzing not only adverse effects, but also the social, psychological, and ethical impacts of this practice. In addition, the development of awareness programs is suggested in order to provide guidance on the rational use of medicines and to enhance the role of health professionals. In this way, it will be possible to minimize the risks associated with indiscriminate consumption and to promote greater safety in the use of pharmacological therapies.

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