Workers' Comp

# Ask The Pharmacist: Ozempic for Addiction Treatment

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## Jonathan Rowell, Pharm. D.

**Pharmacist, Clinical Operations**


**Could Ozempic be a potential breakthrough in addiction treatment?**

Addiction is a pervasive and challenging issue affecting millions of individuals worldwide. Conventional approaches to addiction treatment often include counseling, therapy and medication-assisted treatment (MAT). However, recent research has sparked interest in the potential use of Ozempic (semaglutide), primarily prescribed for managing type 2 diabetes, as a novel treatment for addiction. This article will explore the emerging evidence and discuss the potential benefits and considerations for the use of Ozempic in the context of addiction treatment.

#### Understanding Ozempic

Ozempic belongs to a class of medications known as glucagon-like petide-1 (GLP-1) receptor agonists. Originally developed for diabetes management, Ozempic works by stimulating GLP-1 receptors in the brain, which regulate appetite, glucose metabolism and insulin secretion. While its primary application remains diabetes and recent headlines showcase its use for weight loss, newer studies suggest that Ozempic's mechanism of action may hold promise in addressing addiction as well.

#### Mechanism of Action and Potential Benefits

The precise mechanisms through which Ozempic exerts its anti-addictive effects are still under investigation. However, several theories have been proposed. One hypothesis suggests that Ozempic modulates dopamine, a neurotransmitter involved in reward and reinforcement pathways. By regulating dopamine release, Ozempic may reduce the pleasurable effects of addictive substances, diminishing the motivation to use them.

Additionally, GLP-1 receptors are not only found in the pancreas but also in the brain regions associated with reward and motivation, such as the mesolimbic system. This brain circuitry plays a vital role in addiction. By modulating these receptors, Ozempic may influence the brain's reward system, potentially reducing the reinforcing effects of addictive substances.

Furthermore, Ozempic's potential weight loss benefits could prove advantageous in addiction treatment. Obesity commonly occurs with substance use disorders, complicating the recovery process. By promoting weight loss, Ozempic may improve overall health outcomes and potentially enhance treatment efficacy among individuals struggling with addiction.

#### Research on Ozempic for Addiction

Initial studies investigating the effects of Ozempic on addiction have produced encouraging results. A notable study published in the journal *Nature* in 2015 examined the impact of GLP-1 receptor agonists on alcohol intake in rodents. The researchers discovered that these medications reduced alcohol consumption and relapse-like behavior. Although this study specifically focused on alcohol addiction, it opened avenues for further study of Ozempic's potential in treating addiction to other substances.

Another area of interest is Ozempic's potential for curbing cravings and reducing relapse rates among individuals with opioid addiction. A study published in the journal *Neuropsychopharmacology* in 2020 reported that GLP-1 receptor agonists, including Ozempic, significantly reduced opioid intake and seeking behaviors in animal models. These findings suggest that Ozempic may have broader applications in addressing various types of addiction beyond alcohol.

#### Limitations and Considerations

Ozempic appears to have promise as a novel treatment for addiction. While the initial findings regarding Ozempic's potential for addiction treatment are intriguing, it's crucial to acknowledge the limitations and considerations associated with this research. Most studies conducted thus far have been preclinical, utilizing animal models rather than human subjects, or in very limited human studies. Translating these findings into full-scale human trials and clinical practice requires further investigation and rigorous testing.

Moreover, addiction is a complex condition influenced by various biological, psychological and social factors. While Ozempic may target specific neurobiological aspects of addiction, it should not be seen as a standalone solution. Ultimately, a comprehensive and personalized approach to addiction treatment, combining pharmacological interventions with therapy and support, remains the gold standard for effective recovery and it may be a while before Ozempic is used to treat addiction especially within the workers' compensation system.

This information is meant to serve as a general overview, and any specific questions or concerns should be more fully reviewed with your health care professional such as the prescribing doctor or dispensing pharmacist.

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