THE EFFECTIVENESS OF OXYTOCIN IN THE TREATMENT OF STIMULANT USE DISORDERS: A SYSTEMATIC REVIEW

Objectives:
Despite stimulant use being a major public health concern, there are no widely accepted treatment interventions to address stimulant use disorders (SUD). In light of evidence suggesting that oxytocin may be a useful treatment for SUD in animal models, the evidence pertaining to its effectiveness in humans was reviewed.

Methods:
A literature search using Medline, Embase, and PsychInfo was undertaken. Search results were subsequently imported into Covidence, an internet based systematic review program, for identification of relevant studies.

Results:
Six studies of small size were included in this review, two of which were pilot studies. One study suggested that oxytocin increased the desire to use cocaine; however, this was in a population of participants who were abstinent of all drug use for an average of 28 months in the context of incarceration. Although oxytocin was well tolerated across studies, no study showed a statistically significant reduction in reported cocaine use or cravings. One study showed a trend towards reduced self-reported cocaine use and a significant reduction in the construct of ‘self-association’ with drugs. Another study found that oxytocin resulted in higher rates of group therapy attendance.

Conclusions:
Available research suggests that oxytocin does not have significant benefit in the treatment of SUD; however, included studies are small in sample size and limited in number. In light of the limited data available at this time, in addition to the positive results seen in animal models, further studies are required. Currently, there is not enough evidence to support the use of oxytocin for the treatment of SUD.

Clinical Relevance:
Currently, there are no widely accepted medication or therapeutic interventions for the treatment of stimulant use disorders. There is increasing evidence in animals to suggest that oxytocin minimizes the re-warding effects of many illicit substances, including stimulants. Oxytocin is presenting as a potentially safe pharmacotherapeutic treatment of stimulant use disorders.