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Perspective

Symptoms of Psychology Delays in Children with Autism Spectrum Disorder

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ABSTRACT

Oxytocin is a hormone that mediates interpersonal relationships by improving social recognition, memory, and stress reduction. It is released centrally into the cerebrospinal fluid as well as peripherally into the blood, where it can be easily measured. According to some research, the oxytocin machine, with its social implications, is most likely unique to humans with autism spectrum disorder. These meta-evaluation shows that children with autism spectrum disorder have lower blood oxytocin levels than neurotypical individuals, based on evidence from 31 studies. This may not be the case for adults with autism spectrum disorder, where we found no difference. Our findings encourage further research into the oxytocin system in children with autism spectrum disorder. This should lead to new treatment options for children with autism spectrum disorder.

Keywords: Autism, Blood, Meta-Analysis, Oxytocin, Oxytocin Levels.

INTRODUCTION

Autism spectrum disorder (ASD) is a brain condition characterised by a wide range of symptom clusters, including deficits in social interaction and social communication, as well as restricted or limited interests and repetitive behaviours. The social deficits specifically include difficulties with social cognition, emotion-popularity and metalizing, maintaining eye contact and processing gaze records, as well as establishing and maintaining social affiliations. All of these developments are thought to be mediated by oxytocin (OT) [1].

Oxytocin is a neuropeptide produced within the hypothalamus and released from axonal projections to various parts of the relevant nervous system as well as from the posterior pituitary into peripheral circulation. Oxytocin is well-known for its role in parturition, breastfeeding, and parent-child bonding, but it has also been shown to mediate broader social relationships. Fundamentally, Oxytocin supplements social recognition, social memory, and praise by modulating dopaminergic pathways, as well as by lowering tension and strain by dampening amygdala interest and the hypothalamic–pituitary–adrenal axis [2-4].

Based on the aforementioned social consequences of Oxytocin, it is thought to be involved with the social deficits of ASD. Indeed, numerous Oxytocin system additives were linked to ASD, including the genes for Oxytocin, its receptor, and cluster of differentiation 38 (a transmembrane protein that regulates Oxytocin release). Variation in these genes should result in changes in the binding affinity between Oxytocin and its receptor, the distribution of Oxytocin receptors, and the circulating Oxytocin ranges. While examining receptor distributions and binding affinity in humans isn't always feasible, many critics have argued that autistic people have lower levels of circulating Oxytocin. Such a distinction in Oxytocin ranges could help to strengthen efforts to use Oxytocin management to alleviate social deficits in ASD patients. Thus, determining whether or not Oxytocin ranges fluctuate in Autism Spectrum Disorder is a critical step toward expanding healing applications. In this section, we will provide a brief assessment of previous research evaluating Oxytocin ranges in autistic and neurotypical individuals [5,6].

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