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A single-dose study to examine the effect of intranasal oxytocin on social emotional functioning in Anorexia Nervosa

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Authors

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Introduction

The course of anorexia nervosa (AN) is protracted and it remains a serious illness with the highest mortality rate among psychiatric disorders. Risk and maintenance models of AN suggest that difficulties in social-emotional processes and elevated stress and threat sensitivity play an important role in the development of AN and interact with the core processes further fuelling the illness. This project explored the question whether oxytocin is useful candidate to enhance treatment for anorexia nervosa.

Methods

The project explored the impact of the neuropeptide oxytocin on threat-related processing and social-emotional difficulties in AN using single dose, double blind placebo controlled design. Fifty-nine adult women over the age of 18 took part in the study. Thirty women had a current DSM-5 diagnosis of AN and 29 women were healthy comparison (HC) women. Following administration of 40IU of intranasal oxytocin all participants completed a battery of social-emotional tasks, including the reading the mind in the eyes and a evoked facial expressions task, as well as a dot-probe task to assess attentional bias towards food images and a fruit smoothie challenge. All tasks were repeated in the placebo session.

Results

The findings revealed that intranasal oxytocin reduced salivary cortisol and modulated attentional bias towards food images in women with AN relative to placebo. No significant effects of oxytocin on social-emotional processing or on smoothie consumption were found among women with AN. Additionally, no significant effects of intranasal oxytocin were found among the HC women.

Conclusions

Taken together, the findings indicate that although intranasal oxytocin may modulate some aspects of threat processing, such as cortisol response and attentional bias among people with AN, it has little effect on social-emotional processing or on eating behaviour.

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