

## EPV1220

## Sharing is caring: a review on Oxytocin role in human behaviour and clinical implications

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**Introduction:** Oxytocin, also known as the love molecule, was discovered in 1906 because of its effects on uterine contractions. It exists in all mammals and is partly responsible for delivery. Nonetheless, it seems that oxytocin also takes part in something as important to nursing as the physical changes in childbirth – the behavioural predisposition to form human bonds and to care for others.

**Objectives:** Present a review on Oxytocin and its functions in human behaviour and possible clinical implications

**Methods:** Pubmed and Google Scholar search using the keywords “oxytocin”, “behaviour”, “oxytocin in humans” and “psychiatry”.

**Results:** Besides acting as a peripheral hormone following posterior hypophysis secretion, oxytocin can be diffused through several brain areas, acting as a neuropeptide in neurochemical circuits that promote sexual behaviour, maternal and caring behaviour towards newborns, and other subtle social processes like vinculation, social memories formation, aggressiveness towards strangers and anxiety reduction. These evolutionary advantages constitute the roots for feelings of love and social phenomena like solidarity and affection. Oxytocin is increased in response to sex hormones, during pregnancy and social interactions, especially mother-child contact; additionally, is associated with endorphin release and feelings of well-being. Several studies associate the oxytocinergic system to multiple clinical implications, such as Anxiety Disorders, PTSD, Depression, Autism, Borderline and Anti-social Personality Disorder.

**Conclusions:** Oxytocin has an important role in shaping social behaviours and in the development of secure interpersonal bonds. In the future, it can be a possible target for some psychiatric conditions; however, more research is required to prove therapeutic outcomes.

**Disclosure:** No significant relationships.

**Keywords:** Oxytocin in humans; behaviour; psychiatry; Oxytocin

## EPV1223

## Exposure to body odours combined with the effect of mindfulness treatment in patients with depressive and social anxiety symptoms - A preliminary study.

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**Introduction:** To understand the way chemistry influences human communication is important since the reaction to chemosignals has many implications for science and society. For instance, previous research showed a connection between olfaction and affective psychiatric disorders. Olfactory processing may be impaired in subject presenting depression symptoms (DEP). Furthermore, a heightened sensitivity to social odours has been shown in subject with social anxiety symptoms (SAD). This may be due to the partial overlap of brain areas which are involved in olfactory processing and the pathophysiology of these disorders. Yet, more detailed research on the olfactory processing is required.

**Objectives:** POTION is an EU funded project within the Horizon2020 initiative that aims to understand the nature of chemosignals in humans and their sphere of influence on social interaction. Within this project, we conducted a preliminary exploratory study examining whether the odours may be utilized to support positive outcomes of psychological therapy. It evaluates the catalyst effect of the odour conditions on the effectiveness of mindfulness meditation for SAD and DEP.

**Methods:** Thirty subjects per patient group (total=60) are randomly allocated to one exposure group (happy or fearful human body odour or clean air) and follow the intervention while being exposed to the odour. Psychological outcome is measured before and after the intervention through the State-Trait Anxiety Inventory and the Profile of Mood State questionnaires. Analysis of variance is performed to assess outcome differences between groups.

**Results:** Preliminary results on a subsample of 32 patients show a trend of deeper reduction of anxiety symptoms at post-treatment among odour-exposed groups compared to clean air ( $F(1,17) = 11.08$ ,  $p = 0.004$ ).

**Conclusions:** Final results on the complete sample will be available and presented at the time of the congress.

**Disclosure:** No significant relationships.

**Keywords:** Depression; Chemosignals; social anxiety; Body odour

## EPV1224

## TOO MUCH OF NOT ENOUGH: Exploring Lack of Fear and Its Consequences

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**Introduction:** Fear is an unpleasant emotional response to perceiving a threat causing physiological changes. Humans feel fear for positive motives, as it plays a crucial role in our survival. Just as the right balance in life is ideal, pathological fear is often described in one of its exaggerations, of having too much. However, lack of fear or “hypophobia” can be just as devastating and debilitating. This can be demonstrated in the analogy between those who feel no pain who also demonstrate increased risk and decreased life expectancy.

**Objectives:** The authors aim to explore the concept of fear, discussing currently known physiological mechanisms in order to explain the effects that alterations of these mechanisms can have on fear responses, namely lack of fear, and subsequently the consequence of this on mental health.