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# Can the "Love Drug" limit the effects of PTSD?

What if PTSD symptoms could be reduced? What if the symptoms of PTSD could be treated within weeks of the initial trauma? In a study published in 2017 by the *European Journal of Psychotraumatology*, the head researcher Jessie L. Frijling along with others looked at how oxytocin affected individuals with early symptoms of post-traumatic stress disorder, more commonly referred to as PTSD. Oxytocin is often referred to as the love hormone because it is released in the brain when people feel love or trust. This study differed from many since it focused on early treatment of PTSD, unlike more common methods of treatment such as cognitive behavior therapy which often were not pursued until a year after PTSD symptoms present themselves.

As Frijling states, PTSD is a mental health condition that develops in response to a traumatic event, which could impact many due to approximately 70% of people in the world experiencing a traumatic event at some point in their life. Frijling attempted to treat early PTSD symptoms with oxytocin, a chemical that is naturally produced in the brain and is responsible for feelings of trust, romantic feelings, as well as sexual arousal. This chemical also has an effect on the brain by reducing anxiety and stress within a person. A group of individuals that had recently gone through trauma at an emergency center were given doses of oxytocin via the nose and then had MRIs taken to analyze the brain's response to the chemical. The MRIs looked specifically at the amygdala, which is responsible for the brain's recognition and response to fear. Essentially, the amygdala is responsible for the fight-or-flight aspect of the brain.

For the study, each subject was read a neutral script and then a script that was based on their individual trauma in order to see if the amygdala recognized/reacted to the trauma. After each script, an fMRI was done to analyze the amygdala's response. The results of the study found that the subjects with symptoms of early PTSD, such as anxiety or mild paranoia, had positive results. The amygdala in these patients showed less reaction which meant a reduction in fear response/reaction. As the study continued, it also showed that administering oxytocin to people who may be experiencing early stages of PTSD up to six months post-trauma.

Since the study was done on a small group of individuals, the results do not fully take into account the differences in certain individuals or characteristics such as gender. Frijling also noted in the dissertation of the study that the effects of oxytocin may differ depending on the number of times a person is given the drug, such as one time versus repeated administration to help them with PTSD. The researchers also noted that studies similar to this one done on rats with high anxiety showed that one dose of oxytocin was ineffective, while one week of administering it lead to a reduction in anxiety-like behavior. While Frijling's study on how oxytocin reduces PTSD symptoms shows promise, it is still in early development and needs further research before it can be a viable treatment. Currently, most forms of PTSD treatment center around already-developed symptoms, but studies like this continue to give hope to those that suffer from PTSD. By researching the possible ways to prevent the advancement of PTSD symptoms, Frijling and his team could limit the suffering of many people that would otherwise be further traumatized by PTSD.

Original Text:
Frijling JL. Preventing PTSD with oxytocin: effects of oxytocin administration on fear neurocircuitry and PTSD symptom development in recently trauma-exposed individuals. *European Journal of Psychotraumatology*. 2017;8(1):N.PAG. doi:10.1080/20008198.2017.1302652Tran