Hypnosis in anxiety management: Evidence, neurobiology and clinical applications

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Hypnosis is an evidence-based psychological tool effective in reducing anxiety and modulating physiological, cognitive, and emotional responses. This article presents a narrative review of the neuroscientific foundations of hypnosis, its application in anxiety treatment, and its advantages over other interventions. It includes evidence from neuroimaging studies, clinical trials, and systematic reviews. The role of self-hypnosis, its integration with other therapies such as CBT and mindfulness, and its applicability in medical, academic, and sports contexts are also discussed.

Anxiety disorders represent one of the main challenges in contemporary mental health, affecting millions of people worldwide and significantly compromising their quality of life. Hypnosis, often misunderstood by the general public, is a powerful clinical technique for addressing anxiety from an integrative perspective. It is a modified state of consciousness characterized by intense attentional focus, reduced peripheral awareness, and heightened responsiveness to therapeutic suggestions. Far from being a state of unconsciousness, hypnosis involves active participation of the subject in a process of cognitive and emotional restructuring.

From a neuroscientific perspective, hypnosis alters brain activity in key networks such as the Default Mode Network (DMN), the Executive Control Network (ECN), and the Salience Network. These changes allow the mind to become more plastic, flexible, and receptive to therapeutic change. Functional neuroimaging studies have shown that during hypnosis, levels of rumination decrease, alertness system hyperactivity diminishes, and regions involved in emotional processing and autonomic regulation become more active. This facilitates the deactivation of persistent anxious states.

In clinical settings, hypnosis has shown significant efficacy in reducing symptoms of generalized anxiety disorder, panic disorder, social anxiety, and situational anxiety. The use of positive suggestions, guided imagery, and physiological anchors helps patients regain a sense of internal control and emotional safety. Additionally, its capacity to induce deep relaxation has direct effects on the autonomic nervous system, promoting balance between the sympathetic and parasympathetic systems.

Numerous studies have compared the effectiveness of hypnosis with conventional treatments such as pharmacotherapy or cognitive behavioral therapy (CBT), observing that hypnosis is not only effective but can also enhance outcomes when combined with these interventions. In particular, combining hypnosis with CBT has been shown to accelerate cognitive change processes, while its integration with mindfulness practices enhances bodily and emotional awareness, strengthening patient self-regulation.

Hypnosis is also successfully applied in non-clinical contexts, such as preparation for medical procedures, academic performance, and athletic training. In medicine, it reduces preoperative anxiety, lowers pain perception, and improves patient experience during surgeries or invasive treatments. In academic settings, it has proven effective in reducing academic stress, improving attentional focus, and increasing cognitive performance. In sports, it facilitates the flow state, optimizes concentration, and accelerates emotional recovery after demanding competitive events.

Self-hypnosis, as an extension of clinical hypnosis, allows individuals to cultivate a state of calm and focus on their own, becoming a powerful tool for emotional self-care. When practiced regularly, self-hypnosis strengthens resilience, promotes healthy mental habits, and enables more balanced and clear responses to daily challenges. Techniques such as visualizing a safe place, repeating positive suggestions, and using anchored breathing are essential components of this accessible and effective practice.

In conclusion, hypnosis is a safe, effective, and evidence-based intervention for anxiety management. Its integration with other therapies, applicability across multiple contexts, and solid neurobiological foundation make it a valuable tool in clinical practice. As rigorous knowledge of its benefits spreads, its ethical and professional use is expected to continue growing in the field of mental health.

"The mind is like the sea. Hypnosis teaches us to surf the waves of anxiety instead of being dragged by them."

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References

Baxter, A. J. et al. (2013). The global burden of anxiety disorders. Psychological Medicine.

Elkins, G., Jensen, M. P., & Patterson, D. R. (2013). Hypnotherapy for the management of chronic pain. International Journal of Clinical and Experimental Hypnosis.

Oakley, D. A., & Halligan, P. W. (2013). Hypnotic suggestion: Opportunities for cognitive neuroscience. Nature Reviews Neuroscience.

Schnur, J. B., et al. (2008). A randomized trial of hypnosis for breast surgery patients. Journal of the National Cancer Institute.

Lang, E. V., et al. (2006). Adjunctive non-pharmacological analgesia for invasive procedures. The Lancet.

Jiang, H., White, M. P., Greicius, M. D., & Waelde, L. C. (2017). The neural correlates of mindfulness: A review. Consciousness and Cognition.

Li, S. & Li, X. (2022). Hypnosis and sports performance: A meta-analytical review. Sports Psychology Review.

Olendzki, A., et al. (2020). Mindfulness, hypnosis and health outcomes: A theoretical integration. Clinical Psychology and Psychotherapy.