

Role of Botulinum Toxin in Treatment of Depression: A Review

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Aims: Depressive disorders, as defined by the International Classification of Diseases (11th Revision), involve a depressive mood (feeling sad, irritable, or empty) along with other symptoms affecting a person's ability to function. Botulinum toxin, used for conditions like migraines and muscle spasms, is being researched as a treatment for depression. The theory is based on facial feedback, where paralyzing facial muscles could reduce the brain's ability to process negative emotions, potentially improving mood. This review aims to explore how botulinum toxin might work in depression treatment and summarize the current research and future directions in this field.

Methods: We searched PubMed. Inclusion criteria were paper should discuss depression and botulinum. We excluded papers before 2010 and papers which included botulinum toxin in patient comorbid migraine.

Results: Magid et al. reviewed 2 case series, 3 randomized controlled trials (RCTs), and one meta-analysis on botulinum toxin for depression. 29/39 U was injected. They concluded that botulinum toxin was not yet an appropriate treatment.

Kugar and Wollmer examined studies on botulinum toxin's effects on depression, especially patients with chronic migraine. 29/39 U was injected. Some improvement but called for further research.

Wollmer et al. (2019) analysed 4 RCTs and 3 case series, confirming the efficacy of botulinum toxin in treating depression. They found a lasting effect of about 3 months with a single treatment but recommended further research.

Qian et al. (2020) conducted a systematic review of RCTs and concluded that botulinum toxin might offer a new treatment option for major depressive disorder. However, the effects on depression secondary to other conditions remain unclear.

Danilo et al. (2021) analysed 5 RCTs, finding botulinum toxin more effective than a placebo in treating depression. They noted low risk of bias, with statistically significant results.

Yang Li et al. (2021) reviewed 10 RCTs and confirmed that studies support botulinum toxin as a potential alternative treatment for depression.

Wollmer et al. (2022) evaluated 5 studies and found botulinum toxin effective for patients although the exact mechanisms are still under study.

Conclusion: While botulinum toxin has shown potential in treatment for depression, particularly for patients who didn't respond to antidepressants or who experience side effects, the current evidence remains preliminary. Several studies indicate that botulinum toxin may offer symptomatic relief. However, the overall quality of the evidence is limited by small sample sizes, methodological inconsistencies, and the need for more trials.

Abstracts were reviewed by the RCPsych Academic Faculty rather than by the standard *BJPsych Open* peer review process and should not be quoted as peer-reviewed by *BJPsych Open* in any subsequent publication.

The Relationship Between Personality Types and Attitudes Toward Psychiatry Among Medical and Psychology Students in the United Arab Emirates: A Cross-Sectional Study

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Aims: While personality traits are known to influence values, beliefs, and professional preferences, limited research has explored their impact on attitudes toward psychiatry, particularly in Middle Eastern contexts and among non-medical students. Personality traits also influence perceptions of mental illness among individuals, helping to understand the basis of societal mental health stigma. Understanding the relationship between personality traits and attitudes toward psychiatry is crucial for developing educational strategies that support positive perceptions, ultimately enhancing healthcare outcomes for individuals living with mental illnesses.

Methods: This study employed a cross-sectional design to evaluate how personality dimensions correlate with perceptions of psychiatry in a sample of 503 students, including 377 medical and 126 psychology students from three major universities in the United Arab Emirates. Attitudes toward psychiatry were assessed using the Attitudes Towards Psychiatry (ATP-30) scale, and personality traits were evaluated using the Big Five Inventory. Spearman's rank correlation was employed to analyse the relationships between ATP scores and personality dimensions: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.

Results: Significant positive correlations were found between ATP-30 scores and four personality traits: extraversion ($r=0.11$, $p=0.01$), agreeableness ($r=0.22$, $p<0.001$), conscientiousness ($r=0.10$, $p=0.03$), and openness ($r=0.28$, $p<0.001$). Emotional stability did not exhibit a significant correlation ($r=-0.03$, $p=0.58$). Medical students demonstrated similar patterns, with openness ($r=0.26$, $p<0.001$) and agreeableness ($r=0.20$, $p<0.001$) being the strongest predictors. Among psychology students, only agreeableness ($r=0.21$, $p=0.02$) and openness ($r=0.30$, $p<0.001$) showed significant associations.

Conclusion: These findings underscore the influence of personality traits – particularly agreeableness and openness – on attitudes toward psychiatry. They highlight the need for tailored educational approaches to promote positive perceptions of psychiatry, with implications for improving both training outcomes and therapeutic relationships.

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