



Role of Artificial Intelligence on Post-COVID Mental Health Challenges: A Systematic Review

Matineh Sadat Tabatabaei^{1*}, Marjan Delkhosh²

¹Nursing Student Association, Students' Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran

²Department of Community Health and Geriatric Nursing, Faculty of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

OPEN ACCESS

*Corresponding Author:

Nursing Student Association,
Students' Scientific Research
Center, Tehran University of
Medical Sciences, Tehran, Iran

ABSTRACT

Introduction: The COVID-19 pandemic is considered the biggest catastrophe of the 21st century. The rapid advancement of artificial intelligence (AI) technology has significantly impacted various aspects of society, including mental health in the post-COVID era. AI tools have emerged as valuable resources in diagnosing, treating, and managing mental health conditions. This abstract explores the effects of AI on mental health post-COVID, highlighting the innovative AI tools employed to support individuals in need of mental health well-being.

Search Strategy: A narrative review was conducted using PubMed, Scopus, and Google Scholar databases. Key search terms included "Artificial intelligence", "post-COVID-19", and "mental health." Interventional studies from February 2020 to September 2023 were studied. Articles focusing on and analyzing various AI tools are used. After screening the titles and abstracts of the articles, 122 articles were carefully selected for full-text review based on inclusion and exclusion criteria. Finally, 20 articles were included in the abstract.

Results: AI has the potential to significantly impact mental health post-COVID-19 by providing innovative tools such as chatbots, virtual therapists, digital therapeutics, and predictive analytics. These technologies offer timely interventions and personalized support for individuals experiencing depression and anxiety. Studies showed that these applications resulted in high levels of satisfaction among patients and their families, and they include interactive features.

Conclusion and Discussion: These AI tools have significantly improved patients' mental well-being by providing instant support, personalized treatment plans, and early intervention. They offer accessible and convenient options for individuals to seek help and receive guidance at their own pace. As these tools continue, the prospects in this field are promising to evolve and become more sophisticated in understanding and addressing mental health issues. They have the potential to reduce stigma around seeking help and improve overall mental healthcare outcomes. However, it is important to note that these tools should always be used with human clinicians, as they cannot replace the importance of human connection and empathy in mental health treatment. Altogether, AI tools have revolutionized the mental health landscape, offering new possibilities for support, intervention, and personalized care.

Citation:

Tabatabaei MS, Delkhosh M. Role of Artificial Intelligence on Post-COVID Mental Health Challenges: A Systematic Review. *Iranian biomedical journal*. Supplementary (12-2024): 299.

Keywords: Artificial intelligence, COVID-19, Mental health

