

THE ROLE OF ARTIFICIAL INTELLIGENCE IN MENTAL HEALTH SUPPORT: OPPORTUNITIES AND ETHICAL CHALLENGES

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Abstract. This article examines the role of artificial intelligence in mental health support, focusing on both its practical opportunities and ethical challenges. AI-based systems, including conversational agents, digital screening tools, predictive analytics and large language models, are increasingly being used to support mental health care, improve access to psychological information, assist clinicians and personalize interventions.

Keywords: artificial intelligence, mental health, digital health, AI chatbots, psychological support, ethics, privacy.

INTRODUCTION

Mental health has become one of the most significant public health concerns of the contemporary world. Depression, anxiety, stress-related disorders, substance-use problems and other psychological difficulties affect quality of life, labour productivity, family relations and social stability. At the same time, many countries face a shortage of mental health professionals, long waiting lists, unequal access to therapy, high treatment costs and persistent stigma surrounding psychological help. In this context, artificial intelligence is increasingly considered as a potential instrument for expanding access to mental health support, improving early detection and assisting professionals in decision-making. The World Health Organization recognizes that AI technologies may improve diagnosis, treatment, health research and public health functions, but it also stresses that ethics and human rights must remain central to their design and use [1].

MATERIALS AND METHODS

The first major opportunity of AI in mental health support is accessibility. Traditional mental health care often depends on the availability of specialists, geographic location, financial capacity and the willingness of individuals to seek help. AI-based applications may reduce some of these barriers by offering immediate, low-cost and private access to general psychological support. For individuals who are reluctant to speak to a therapist because of stigma, an anonymous digital tool may become the first step toward recognizing distress and seeking professional assistance. Chatbots and self-help platforms can provide basic psychoeducation, mood tracking, breathing exercises, cognitive-behavioural prompts and reminders for healthy routines.

These tools are especially relevant for mild symptoms, prevention, self-management and follow-up support after professional consultation.

Empirical research suggests that AI-supported conversational tools may have potential in limited and structured contexts. The randomized controlled trial by Fitzpatrick, Darcy and Vierhile tested Woebot, a fully automated conversational agent delivering cognitive-behavioural self-help content to young adults with symptoms of anxiety and depression. The study involved 70 participants aged 18–28 and found a significant reduction in depressive symptoms in the Woebot group over a short intervention period [3]. This result does not prove that chatbots can replace therapy, but it indicates that structured, evidence-based conversational agents may support certain users when their scope, limitations and safety mechanisms are clearly defined.

A second opportunity concerns early detection and monitoring. AI systems can analyze questionnaires, speech patterns, writing style, sleep data, activity levels and other behavioural signals to identify possible signs of psychological distress. In clinical settings, such tools may help professionals detect relapse risks, monitor treatment progress and prioritize patients who need urgent attention. For example, AI can assist in recognizing changes in language associated with depression, anxiety or suicidal ideation, although such inferences must be treated with caution. Mental health symptoms are context-dependent and culturally shaped; an algorithmic signal should never be treated as a final diagnosis. Its proper role is to support clinical judgment, not replace it.

A third opportunity lies in personalization. Mental health support is more effective when it reflects the user's condition, motivation, language, cultural background and treatment history. AI can adapt educational materials, reminders and exercises according to user responses. It may recommend specific coping strategies, track emotional patterns and help users identify triggers. For clinicians, AI may summarize patient-reported data, organize therapy notes or highlight changes that require attention. Such functions can reduce administrative burden and allow professionals to devote more time to therapeutic communication. In this sense, AI can strengthen the health system if it functions as an assistive layer within human-led care.

RESULTS AND DISCUSSION

However, the ethical challenges are substantial. The first challenge is clinical safety. Mental health conversations often involve vulnerability, trauma, self-harm risk, suicidal thoughts, psychosis, addiction and interpersonal violence. A general-purpose AI system may provide inaccurate, overconfident or inappropriate advice. It may fail to recognize crisis signals, misunderstand context or respond with excessive agreement. WHO warns that large multi-modal models can create risks such as automation bias, where health workers or patients overlook errors because they place too much trust in AI outputs [2]. In mental health support, automation bias is especially

dangerous because users may treat fluent and empathetic language as evidence of professional competence.

CONCLUSION

Artificial intelligence can play a valuable role in mental health support by improving access, enabling early detection, assisting self-management, personalizing interventions and reducing the administrative burden on clinicians. It is particularly promising in psychoeducation, low-intensity support, symptom tracking and guided digital interventions. However, mental health is not a neutral information domain. It involves vulnerability, emotional dependence, risk of self-harm, privacy-sensitive disclosures and complex human relationships. Therefore, AI tools in this field require stricter ethical, clinical and regulatory standards than ordinary digital applications.

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