

Exploring the role of Artificial Intelligence-Powered Apps in the Treatment of Anxiety and Depression

IMPERIAL

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Introduction

Anxiety and depression are rising worldwide, yet health systems are struggling to meet increasing demand due to shortages of psychiatrists and limited access to therapy services. As a result, many patients are turning to artificial intelligence (AI) for support, including AI-powered psychotherapy apps. These technologies aim to enhance access to mental health care, but their adoption in clinical practice remains uncertain. This study examined the strengths and weaknesses of AI mental health apps, explored physicians' opinions and openness toward using AI in psychiatry, and developed strategies to overcome barriers to their effective implementation in healthcare settings.

Aims

1. To identify the strengths and limitations of AI-powered apps in the treatment of anxiety and depression
2. Explore the barriers and facilitators of physicians incorporating AI technology into their practice
3. Develop solutions to aid the promotion of AI apps to treat anxiety and depression in primary care

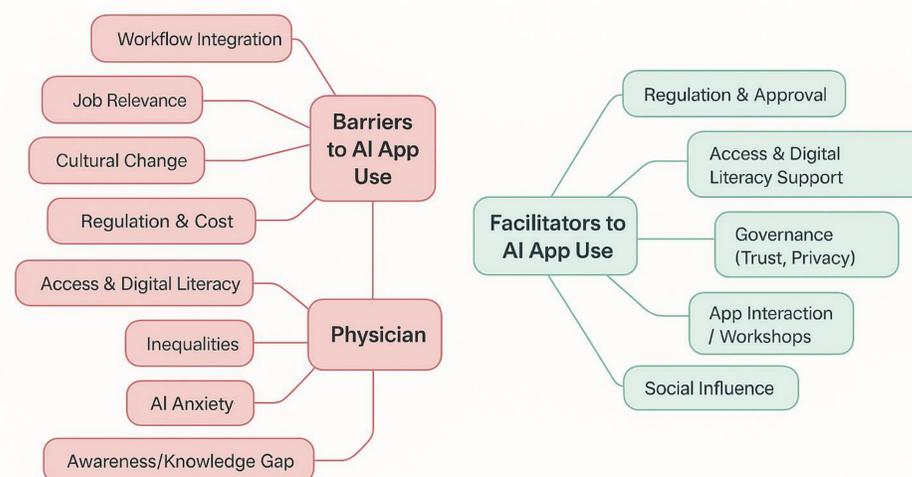
Methods

To address aim 1, a qualitative systematic literature review was conducted in accordance with PRISMA guidelines with Braun & Clark thematic analysis of the results. For aim 2, a protocol of semi-structured interviews was created incorporating the technology acceptance model. 11 general practitioners were recruited via snowball sampling and took part in 45-minute video interviews. The findings from literature and from the interviews were synthesised to develop 5 implementations to address aim 3.

Results

Strengths	Limitations
Can simulate empathy and companionship	Overly human-like design can create discomfort – uncanny valley
Benefits socially isolated or elderly users	Privacy concerns persist
Builds routines and emotional skills	Cost barriers may restrict access and affect equity
Positive clinician views – seen as enhancing engagement and saving time	Essential to preserve clinician trust – an adjust not a replacement

Key strengths and limitations identified from the systematic literature review



Summary diagram of selected barriers and facilitators reported by interviewed physicians

Implementations

1. **AI Information Hub**
Website: aiforclinicians.co.uk — central platform improving clinician awareness, trust, and confidence in AI mental health apps.
2. **Wysa GP Workshop**
Educational session run with Wysa, designed to enhance GP knowledge and confidence in AI-assisted therapy tools.
3. **AI & Mental Health Champions**
Testimonial posters featuring GP success stories, helping to normalise AI use in clinical practice.
4. **AI & Mental Health Conference**
International conference introducing medical students to AI innovations and research in psychiatry.
5. **BAME Community Outreach**
Bilingual sessions held in a mosque setting to reduce stigma and increase AI awareness among minority communities.

Conclusions

This study showcased the immense potential for the use of AI apps in treating anxiety and depression and how healthcare is ready to embrace it. Key use cases identified from literature and physicians were regarding reducing waiting times, helping socially isolated patients and low socioeconomic groups. This mandates further research to validate these apps in larger scale trials and to work with regulatory bodies to ensure safe implementation. Ultimately, promoting a supportive culture of innovation within the NHS will be critical to harnessing AI's full potential in mental health care.