Chatbots show potential to bridge gaps in mental health services

Chatbots show significant potential for bridging gaps in traditional mental health services, according to research by Nottingham Trent University.

NOTTINGHAM, UNITED KINGDOM, July 10, 2024 /EINPresswire.com/ -- Chatbots show significant potential for bridging gaps in traditional mental health services, according to research by Nottingham Trent University.

Dr Andrew Harris, NTU

Psychologists reviewed 31 studies published between 2017 and 2023 which examined the use of chatbots as mental health interventions.

The evidence shows that these artificial intelligence tools are generally well-received by users and demonstrate promising potential for improving mental health, particularly for depression.

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> *Dr Andrew Harris, senior lecturer in Psychology, NTU*

The study focused on three areas: engagement; user attitude; and effectiveness. The reviewed research questioned a variety of groups, including adolescents, graduates, older adults, IBS sufferers, people with eating disorders, people with anxiety or depression, elderly persons with dementia, and people suffering with chronic pain.

Along with showing positive results in terms of alleviating depressive symptoms, chatbots designed to tackle mental health issues were also seen to be beneficial for managing diverse conditions like insomnia, eating disorders, panic disorders, and ADHD.

However, while some studies reported significant reductions in anxiety, others showed no significant differences compared to control groups.

In terms of engagement, the research shows variable usage, with some studies reporting high dropout rates exceeding 50%. However, many others demonstrated attrition rates below 50%, suggesting that chatbots can achieve reasonable engagement levels.

The research also indicated that individuals with greater psychological distress may exhibit higher engagement with chatbots, suggesting that they could be used to reach people hesitant to seek traditional mental health services.

Where users reported positive experiences with mental health chatbots, this was most notably their empathetic and friendly personality, rather than content or technological features. Studies also suggested that therapeutic relationships can be established between users and chatbots.

The findings regarding the ideal duration of chatbot use indicate that short interactions can be beneficial, but longer engagement might be necessary for significant psychological changes.

However, usability was noted as a key concern, with many chatbots scoring below the acceptable threshold for usability, highlighting the need for improvements in design and user interface.

This is a particular concern for older adults and individuals with lower technological familiarity who may face challenges using chatbots.

This emphasizes the need for accessible design and tailored support for diverse populations.

Dr Andrew Harris, senior lecturer in Psychology at NTU's School of Social Sciences, said: "We can see from the research that chatbots can foster a sense of connection and trust, which is crucial for use as therapy.

"Evidence suggests that chatbots can improve access to care, offer convenient support, and potentially deliver effective interventions for specific conditions and severity levels.

"This opens the possibility for them to bridge gaps in traditional mental health services, particularly in terms of accessibility, workforce shortages, and cost-effectiveness. They can also be valuable tool to encourage individuals with mental health concerns, especially those facing stigma, to seek professional help.

"However it is important to note that these technologies should be viewed as tools to supplement, rather than replace, trained mental health practitioners and further work should be done on how to effectively integrate traditional psychological approaches, such as cognitive-behavioural therapy (CBT), and advanced technologies into chatbot design, as well as exploration of the long-term effectiveness and sustainability of chatbot interventions."

User engagement, attitudes, and the effectiveness of chatbots as a mental health intervention: A systematic review by Sucharat Limpanopparat, Erin Gibson, and Dr Andrew Harris, has been published in the journal Computers in Human Behavior: Artificial Humans

Helen Breese
NottinghamTrentUniversity1
+44 115 848 8751
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