Artificial intelligence, practical psychiatric implementations; a narrative review

Sara Su Yin, Yeoh, Tiong Chea Ping

Department of Psychiatry, Hospital Bentong, Pahang

ABSTRACT

Introduction: In Malaysia, a lack of Psychiatrists nationwide and the disproportionate burden of mental illnesses to the availability of resources has only widened since the advent of COVID-19. Could the integration of artificial intelligence into the field of Psychiatry offer a promising avenue in mitigating this challenge? This narrative review provides an overview of the current landscape of AI applications in psychiatry - highlighting key developments, implications, ethical challenges, and future directions. Methods: We conducted a search on PubMed to search on AI and Psychiatry and selected three articles for review, published within the timeframe of 2019 – 2022, to address this question. Results: Recent AI studies in mental health demonstrated high accuracies in predicting and assessing illnesses like depression and schizophrenia using diverse data sources such as predictive modelling and image analysis. AI suggests a potential benefit in overcoming diagnostic challenges in Psychiatry which often arise from the subjectivity and complexity of overlapping symptomology. Furthermore, technologies such as chatbots and novel monitoring system offer options for objective redefinition of mental illnesses and personalized treatments tailored to an individual's unique characteristics. However, ethical considerations of embodied AI in mental health care highlight also raises concerns regarding harm prevention and data ethics. Conclusions: The application of AI in the field of Psychiatry could pose as a promising answer to the challenges of resource limitation. Continued research efforts are needed to bridge the gap between AI innovation and clinical practice, ultimately enabling the effective integration of AI technologies to improve mental health outcomes and patient care.