South African Journal of Psychiatry
ISSN: (Online) 2078-6786, (Print) 1608-9685

Psychiatry and artificial intelligence: A need for informed engagement

Check for updates

Authors:
Christopher P. Szabo[1]
Carla Kotzé[2]
Lisa Galvin[1]
Yumna Minty[1]
Lihle Mgweba-Bewana[2]
Mvuyiso Talatala[1]
Sisikelelwe Gwanya-Mdletye[3]
Gareth Nortje[4]

Affiliations:
[1]Department of Psychiatry, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

[2]Department of Psychiatry, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa

[3]Private, Gqeberha, South Africa

[4]Private, Cape Town, South Africa

Corresponding author:
Christopher Szabo,
christopher.szabo@wits.ac.za

How to cite this article:
Szabo CP, Kotzé C, Galvin L, et al. Psychiatry and artificial intelligence: A need for informed engagement. S Afr J Psychiat. 2026;32(0), a2668. https://doi.org/10.4102/sajpsychiatry.v32i0.2668

Copyright:
© 2026. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0) license (https://creativecommons.org/licenses/by/4.0/).

Read online:
Scan this QR code with your smart phone or mobile device to read online.

The emergence of artificial intelligence (AI) is transforming the healthcare landscape, both clinically and administratively, with the promise of improving patient outcomes. However, as with all innovative technology, the reality of impact emerges over time.[1,2]

The fields of radiology, pathology, gastroenterology and ophthalmology, as well as cardiology, have seen the positive impact of AI systems on screening, diagnosis, prediction and treatment.[3,4] Aside from these medical specialities benefitting from AI, what of psychiatry? Psychiatry is a holistic discipline, incorporating a bio-psycho-social (and increasingly, spiritual) ethos, which includes a multidisciplinary team approach with a focus on individualised treatment that critically requires an in-depth knowledge of a patient's life and history. Human interaction is the cornerstone of psychiatric practice, with the therapeutic alliance well established as fundamental to the success of psychotherapy.[5] However, the South African mental health sector is under-resourced, with a reported 1.52 psychiatrists per 100 000 population, with a distinct urban and private sector, as well as regional bias.[6] The availability of therapeutic chatbots has been promoted to address increasing need in the face of resource constraints,[7,8] notwithstanding well-documented instances of suicide associated with AI chatbot use, with appropriate concerns about AI's ability to handle psychiatric crises appropriately.[9,10] Most recently, the use of therapeutic chatbots, and of AI, for any psychotherapeutic intervention was banned in Illinois (US).[11] Furthermore, no AI chatbot has received Food and Drug Administration (FDA) approval as a medical device for therapy.[10] As stated by Hua et al.,[8] it is imperative '... to ensure that these technologies reliably enhance mental health care'. Accordingly, clinicians need to be fully cognisant of the workings and implications of incorporating AI into their practice.

The lifeblood of AI is data, with massive downward sharing of information by AI into 'big data' making it impossible to ascertain the extent to which patients' information is shared by AI.[12] While this data sharing is essential for AI to learn, improve and reduce bias, it complicates the process of obtaining informed consent from patients, necessitating that we consider updated ways of obtaining consent, which could include the option of letting patients provide consent each time their information is shared instead of giving a blanket consent.[3,13] The management of patient data in terms of privacy, security and use needs to be clearly understood. It is essential for patients to understand how AI will be applied to process their information, for both administrative and clinical purposes, as well as how it may affect their healthcare. Informed consent requires a thorough explanation of such use as well as patient understanding, thus respecting patient autonomy.[1,2]

Within the context of data lies a further, crucial issue, that is, the potential for bias and inaccuracy. Specifically, that AI will understand and interpret inputs of data based on whatever data it has been trained on.[1,2] Under-representation of certain population groups in such data will have the potential for erroneous outputs, potentially impacting not only individual but also population health. In South Africa, the potential to do harm using AI models without adequate diversity of data is a concern, with the risk for bias needing to be carefully considered, and outputs interpreted accordingly with appropriate verification for accuracy. This speaks to the principle of justice. Concerns have been expressed that such bias will perpetuate historical inequality.[14] Within the context of inequality, the issue of access to AI is germane insofar as the lack of access within disadvantaged communities may further perpetuate inequality. A further, related aspect concerns the language of AI and the need for greater representation of African languages. There is currently such a project underway, and as has been stated, 'Building AI in our languages is therefore the only way for AI to work for people'.[15] In addition, the issue of AI governance in Africa has led to a review of both policy and regulatory frameworks with a stated emphasis on the importance of local context to '… ensure that the application of AI fosters diverse cultures and languages and supports locally generated data for the benefit of countries and communities …'.[16]

As patients increasingly engage with AI-driven applications, it is essential that clinicians understand these tools' capabilities and limitations.[10] This enables clinicians not only to contextualise AI-informed patient narratives but also to contribute to shaping the digital health ecosystem in alignment with ethical and clinical standards. In this regard, the Health Professions Council of South Africa (HPCSA) has published 'Ethical guidelines on the use of Artificial Intelligence',[17] and the Medical Protection Society (MPS) has published the 'AI safer practice framework',[18] with both providing comprehensive guidance for clinicians.

As noted by Sydney Bloch in 2005 '… psychiatry is arguably the most person-oriented of all the medical specialities …'.[19] In the age of AI, such words have never been more prescient. Trust, and ultimately the doctor–patient relationship, is fundamental to clinical outcomes. While technological progress that contributes to improved care should be welcomed, it cannot be at the cost of what is fundamental to the practice of medicine, and psychiatry in particular – trust and the doctor–patient relationship.

References

1. Iqbal U, Tanweer A, Rahmanti AR, Greenfield D, Lee LT, Li YJ. Impact of large language model (ChatGPT) in healthcare: An umbrella review and evidence synthesis. J Biomed Sci. 2025;32:45. https://doi.org/10.1186/s12929-025-01131-z
2. Dehbozorgi R, Zangeneh S, Khooshab E, et al. The application of artificial intelligence in the field of mental health: A systematic review. BMC Psychiatry. 2025;25:132. https://doi.org/10.1186/s12888-025-06483-2
3. Rajpurkar P, Chen E, Banerjee O, Topol EJ. AI in health and medicine. Nat Med. 2022;28:31–38. https://doi.org/10.1038/s41591-021-01614-0
4. Biondi-Zoccai G, D'Ascenzo F, Giordano S, et al. Artificial intelligence in cardiology: General perspectives and focus on interventional cardiology. Anatol J Cardiol. 2025;29(4):152–163. https://doi.org/10.14744/AnatolJCardiol.2025.5237
5. Stubbe DE. The therapeutic alliance: The fundamental element of psychotherapy. FOCUS. 2018;16(4):402–403. https://doi.org/10.1176/appi.focus.20180022
6. Janse van Rensburg B, Kotzé C, Moxley K, Subramaney U, Zingela Z, Seedat S. Profile of the current psychiatrist workforce in South Africa: Establishing a baseline for human resource planning and strategy. Health Policy Plan. 2022;37(4):492–504. https://doi.org/10.1093/heapol/czab144
7. Spytska L. The use of artificial intelligence in psychotherapy: Development of intelligent therapeutic systems. BMC Psychol. 2025;13(1):175. https://doi.org/10.1186/s40359-025-02491-9
8. Hua Y, Siddals S, Ma Z, et al. Charting the evolution of artificial intelligence mental health chatbots from rule-based systems to large language models: A systematic review. World Psychiatry. 2025;24:383–394. https://doi.org/10.1002/wps.21352
9. Yang A, Jarrett L, Gallagher F. The family of teenager who died by suicide alleges OpenAI's ChatGPT is to blame. NBC News [newspaper online]. 2025 Aug 26 [cited 2026 Jun 4]. Available from: https://www.nbcnews.com/tech/tech-news/family-teenager-died-suicide-alleges-openais-chatgpt-blame-rcna226147
10. Rabbani SA, El-Tanani M, Sharma S, et al. Generative artificial intelligence in HealthCare: Applications, implementation challenges, and future directions. Biomedinformatics. 2025;5(3):37. https://doi.org/10.3390/biomedinformatics5030037
11. Storey D. Illinois Outlaws AI in therapy sessions [homepage on the Internet]. Psychiatry.com. 2025 [cited 2026 Jun 04]. Available from: https://www.psychiatrist.com/news/illinois-outlaws-ai-in-therapy-sessions/
12. Savulescu J, Giubilini A, Vandersluis R, Mishra A. Ethics of artificial intelligence in medicine. Singap Med J. 2024;65(3):150–158. https://doi.org/10.4103/singaporemedj.SMJ-2023-279
13. Ngcobo M. The ethics and law of medical AI in South Africa: Balancing innovation with responsibility. S Afr Med J. 2025;115(5b):e3667. https://doi.org/10.7196/SAMJ.2025.v115i5b.3667
14. Agarwal R, Bjarnadottir M, Rhue L, et al. Addressing algorithmic bias and the perpetuation of health inequities: An AI bias aware framework. Health Policy Technol. 2023;12(1):100702. https://doi.org/10.1016/j.hlpt.2022.100702
15. Marivate V, Adebara I, Wanzare L. African languages for AI: The project that's gathering a huge new dataset. The Conversation. 2025 Oct 16.
16. Aremu FA, Olaogun M. Governance of artificial intelligence for global health in Africa. A review of policy and regulatory frameworks. Science For Africa Foundation; 2025 [cited 2026 Jun 4]. Available from: https://scienceforafrica.foundation/sites/default/files/2025-04/Governance%20of%20AI%20for%20Global%20Health%20in%20Africa%20v3.pdf
17. Health Professions Council of South Africa. Guidelines for good practice in the health professions. Ethical guidelines for the use of artificial intelligence, Booklet 20. Pretoria; 2025 [cited 2026 Jun 4]. Available from: https://www.hpcsa.co.za/955ad784-8043-4757-be09-f8ef13fcfd28
18. Medical Protection Society. Artificial intelligence: Your medicolegal guide to using AI in practice. 2025 [cited 2025 Dec 11]. Available from: https://www.medicalprotection.org/docs/medicalprotectioninternationallibraries/pdfs/mp_ai_in_practice_framwork_1025.pdf
19. Bloch S. The art of psychiatry. World Psychiatry [serial online]. 2005 [cited 2026 Jun 4];4(3):130–134. Available from: https://pubmed.ncbi.nlm.nih.gov/16633530/