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Review Paper

The Role of Artificial Intelligence in Psychotherapy: Implications, Ethical Considerations, and Future Directions - A Comprehensive Review Study

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ABSTRACT

Artificial Intelligence (AI) is changing how therapy works, making it more accessible and effective. This paper explores how AI is used in therapy, its advantages, challenges, and where it is headed by doing a comprehensive review on already existing literature. AI helps in assessing, diagnosing, delivering treatment, and monitoring various mental health conditions. Virtual reality (VR) is used to create lifelike situations for exposure therapy, helping people overcome fears and trauma in a safe environment. AI also suggests personalized therapies based on individual needs and preferences, improving treatment results. However, using AI in therapy raises concerns about privacy, fairness, and the relationship between therapists and clients. To make sure AI benefits therapy, ethical guidelines, collaboration, and user-centred design are crucial. Future research should focus on long-term studies, adapting AI for different cultures, and creating rules for responsible use. Overall, AI can make therapy more accessible, personalized, and efficient, leading to better mental health outcomes worldwide.

Keywords: *Psychological support, Virtual reality, Generative AI, psychotherapy, mental health*

Can Machines think? (Alan Turing, 1950)

The concept of artificial intelligence was initially introduced by John McCarthy in 1956, marking the inception of the term during the first academic conference dedicated to the subject.

The field of psychotherapy is undergoing a profound transformation with the emergence of Artificial Intelligence (AI) technologies. Traditionally, psychotherapy has relied on face-to-face interactions between therapists and clients, guided by established theoretical frameworks and therapeutic techniques. However, advances in AI have introduced new possibilities for enhancing the accessibility, effectiveness, and scalability of psychotherapeutic interventions. By leveraging sophisticated algorithms and computational techniques, AI offers innovative solutions for addressing the complex challenges of mental health care.

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AI lacks consciousness and emotions, making it incapable of empathizing or experiencing human emotions. So, how can AI be beneficial in mental healthcare? One way to approach this inquiry is by assessing the efficacy of conventional methods in treating mental health compared to other medical fields. The advantages of employing AI in psychiatry must be evaluated in relation to the effectiveness of human therapists and pharmaceutical interventions. If the effectiveness of these traditional methods is deemed relatively low, then AI might find it less challenging to meet the demands of mental healthcare than anticipated.
Within the broad scope of "mental health," there are various conditions ranging from mild anxiety disorder to severe schizophrenia. It remains uncertain whether AI could effectively treat all these conditions or only some of them. However, it is probable that AI could offer at least some level of assistance in addressing the growing demand for mental healthcare globally. Despite efforts to improve healthcare to be more tailored, accessible, and effective, mental health outcomes continue to lag. Globally, poor mental health is estimated to incur significant costs, reaching $2.5 trillion annually, including expenses related to treatment and productivity loss. Projections suggest that this cost could escalate to $6 trillion by 2030, highlighting the urgent need for innovative approaches like AI in mental healthcare (Lancet editorial, 2020).

The integration of AI in psychotherapy encompasses a wide range of applications, from automated assessment and diagnosis to personalized treatment delivery and monitoring. Natural Language Processing (NLP) algorithms analyse textual data from therapy sessions, extracting insights into clients' emotional states, thought patterns, and behaviour. Chatbots and virtual agents provide conversational interfaces for delivering psychoeducation, counselling, and support, offering a convenient and accessible alternative to traditional face-to-face therapy. Cognitive-behavioural therapy (CBT) chatbots guide users through evidence-based therapeutic exercises, empowering individuals to develop coping skills and manage psychological symptoms in real-time. Virtual reality (VR) environments immerse clients in simulated scenarios for exposure therapy, facilitating the gradual desensitization and reprocessing of traumatic memories and phobic stimuli.

Despite the promise of AI in psychotherapy, several challenges and ethical considerations must be addressed to ensure responsible and effective implementation. Privacy concerns surrounding the collection and analysis of sensitive user data, algorithmic biases in AI-driven decision-making processes, and the potential erosion of the therapeutic alliance in technology-mediated interventions are significant considerations that require careful attention. Ethical guidelines, interdisciplinary collaboration, and user-centered design principles are essential for mitigating these challenges and maximizing the benefits of AI in psychotherapeutic practice.

This paper provides a comprehensive review of the role of AI in psychotherapy, examining its applications, benefits, challenges, and future directions. Through an exploration of current research findings, theoretical frameworks, and practical implications, we aim to elucidate the transformative potential of AI in revolutionizing mental health care delivery and improving outcomes for individuals worldwide.

Literature Search Strategy:

A systematic literature search was conducted to identify relevant studies on the role of Artificial Intelligence (AI) in psychotherapy. The search was performed using electronic databases such as PubMed, PsycINFO, Web of Science, and Google Scholar. Keywords and

search terms included combinations of "artificial intelligence," "machine learning," "natural language processing," "psychotherapy," "mental health," "therapy," and related terms.

Inclusion and Exclusion Criteria:
Studies were included if they examined the application of AI technologies in psychotherapeutic interventions, assessment, diagnosis, treatment delivery, or monitoring. Relevant study designs included experimental studies, randomized controlled trials, observational studies, systematic reviews, and meta-analyses.

Data Extraction and Synthesis:
Two independent reviewers screened the titles and abstracts of identified articles to assess eligibility for inclusion. Full-text articles of potentially relevant studies were retrieved and reviewed for final inclusion in the review paper. Data extraction was performed using a standardized data extraction form to collect information on study objectives, methodology, AI technologies used, intervention characteristics, outcomes, and key findings. Discrepancies between reviewers were resolved through discussion and consensus.

Data Analysis:
Data synthesis involved a narrative review approach, summarizing the findings of included studies and identifying patterns, themes, and trends in the literature. Key findings were categorized and presented according to the applications of AI in psychotherapy, including assessment, diagnosis, treatment delivery, and monitoring. Theoretical frameworks, conceptual models, and practical implications were discussed to provide a comprehensive overview of the role of AI in psychotherapeutic practice.

The key findings obtained from the studies have been categorised into different sections which are mentioned below as follows:

1. The first section focuses on the usage of AI in Psychotherapy, specifying the role of VR-CBT and CHATBOTS in the treatment of mental health conditions like depression and a variety of anxiety disorders.
2. The second section focuses on the role of AI therapists in various forms
3. The third section focuses on the usage of NLP in Psychotherapy
4. The fourth section will be focusing on the ethical contemplations of AI in Psychotherapy.

The role of AI in VR-CBT
The inception of Cognitive Behavioural Therapy (CBT) as an innovative form of psychotherapy gained widespread recognition in 1977, spurred by pivotal clinical trials showcasing its superior efficacy in treating depression compared to traditional medical interventions (Rush et al., 1977; Blackburn et al., 1981). At present, CBT stands as a prominent psychotherapeutic modality recommended by the American Psychological Association (APA) for its robust empirical foundation, established through rigorous research and clinical practice (APA, 2022).

The central aim of CBT is to equip individuals with coping mechanisms to comprehend and reshape their emotional, cognitive, and behavioral patterns (APA, 2017). Therapists employ a variety of techniques, including reality testing exercises and problem-solving strategies, to facilitate this process. The overarching goal is to guide patients through a structured three-step approach: (1) recognizing automatic thoughts, emotions, and core beliefs, (2) subjecting

these to critical examination, and (3) cultivating alternative thought patterns conducive to fostering new cognitive, behavioural, or emotional responses (Crane & Watters, 2019).

Therefore, developers can leverage the intervention techniques offered by CBT to devise virtual reality (VR) technologies that generate simulated environments, aiding individuals in confronting fearful situations more adeptly when encountered. Research conducted by (Åhs F et al., 2020) has demonstrated the efficacy of combining VR with CBT in assisting individuals with social anxiety.

Programmers can also cater to the clients by understanding the initial screening responses obtained which the help of machine learning tools or develop prompt engineering mechanisms to reach at the specific goal required.

AI Therapists- the Chatbots

Would you prefer confiding in a robot rather than a human with your deepest emotions? Chatbots are increasingly utilized to provide support and communication for mental health patients. They assist in managing symptoms and identify triggering keywords that prompt referral to human mental health professionals. For instance, Woebot, an adaptive chatbot, guides users through various therapies and exercises to cope with different conditions. Another example is Tess, which offers 24/7 emotional support for anxiety and panic attacks. (Marr, 2023). Wysa, a mental health chatbot, utilizes cognitive behavioral therapy techniques to aid users in managing their mental well-being. Providing self-help tools, it encourages users to reframe their issues and fosters a non-judgmental space for sharing concerns. Wysa prioritizes privacy and security, ensuring that conversation history remains private. Membership grants access to a library of educational self-care material covering various topics such as relationships and loneliness. (Metcalf, 2024). Youper is a leading mental health chatbot app employing Cognitive Behavioral Therapy and Positive Psychology to aid users in mental health management, particularly addressing anxiety and depression with AI-driven interventions. It offers a conversational bot, 'just-in-time interventions' for immediate support, and personalized recommendations through its learning system. Founded by medical professionals and AI researchers, Youper emphasizes its clinical efficacy. Integrating self-assessments and chatbots with access to licensed professionals, it tracks progress over time, incentivizing user commitment and investment in their mental health journey. (Metcalf, 2024)

Wearables

Some AI mental health solutions operate as wearables, interpreting bodily signals via sensors to aid proactively. Biobeat monitors sleeping patterns, physical activity, and heart rate variations to evaluate mood and cognitive state. Aggregated data from other users enables predictive warnings for potential interventions. Users can adjust their behaviour or seek healthcare assistance as needed. (Marr, 2023)

AI holds significant promise in reshaping how we diagnose and comprehend mental illnesses. (Bzdok & Meyer-Lindenberg, 2018). While an individual's comprehensive mental health is best understood through their unique bio-psycho-social profile, our understanding of the interactions within these biological, psychological, and social systems is limited. Mental illnesses exhibit considerable heterogeneity in their pathophysiology, and identifying biomarkers could lead to more objective and refined definitions of these conditions. (Jeste et al., 2019)

Avatars- The VR Care

The use of avatars, such as those in the Avatar Project, is a promising approach for addressing persistent auditory hallucinations in patients with psychosis. (Craig et al., 2018) These avatars, often computer-generated images of faces displayed on screens or tablets, interact with patients through intelligent algorithms. Avatars are also being explored in treating schizophrenia to improve medication adherence. (Bain et al., 2017) In virtual reality-assisted therapy for schizophrenia, patients engage with AI avatars to confront their auditory hallucinations, showing potential for therapeutic benefits. Research indicates that this approach can establish therapeutic targets and benefit patients with treatment-resistant schizophrenia. (Dellazizzo et al., 2018, Du Sert et al., 2018b). Avatars are also employed as "avatar coaches" for treating acrophobia and as "virtual patients" for medical students to practice interviewing. (Freeman et al., 2018). Additionally, avatars are utilized in risk prevention education, such as the Kognito program, aiding in identifying individuals at risk of suicide among college students and faculty. (Rein et al., 2018)

Machine Learning

Machine learning (ML) is an artificial intelligence (AI) technique that encompasses diverse methods enabling algorithms to learn. (Shatte et al., 2019). Common learning styles for healthcare purposes include supervised, unsupervised, and deep learning. (Chen et al., 2017). Other ML methods such as semi-supervised learning (a combination of supervised and unsupervised) and reinforcement learning involve the algorithm acting as an agent in an interactive environment, learning through trial and error using rewards from its actions and experiences. (Gottesman et al., 2019)

Supervised Machine Learning

Supervised Machine Learning (SML) involves using pre-labelled data, such as diagnosing major depressive disorder (MDD) versus no depression. The algorithm learns to associate input features from various data streams, like sociodemographic, biological, and clinical measures, to predict these labels effectively. (Ding et al., 2015). Labels can be categorical (e.g., MDD or not) or continuous (indicating severity). In SML, the algorithm learns from labelled data, where the labels act as a "teacher" guiding the algorithm on how to label the data. After training on labelled data, the algorithm is tested on unlabelled data to assess its ability to classify the target variable, such as MDD. If the model's performance drops with the test data, indicating overfitting and the recognition of spurious patterns, it cannot be relied upon. (Fabris et al., 2017)

The role of NLP and AI in Psychotherapeutic interventions

Neuro-linguistic programming (NLP) is a psychological methodology that entails scrutinizing the techniques employed by successful individuals and adapting them to achieve personal objectives. It links thoughts, language, and behavioural patterns acquired through experience to achieve desired outcomes. (GoodTherapy Editor Team, 2018)

Neuro-linguistic programming (NLP) focuses on modelling, action, and effective communication to help individuals achieve their goals. It suggests that if you understand how someone accomplishes a task, you can copy and share that process with others. NLP practitioners believe that everyone has their own unique way of seeing the world, and by analysing different perspectives, they gain valuable insights. They also emphasize the importance of the senses in processing information and how the body and mind influence each other. NLP is a hands-on approach, meaning you have to do something to learn from it.

According to NLP, there are six levels of change:

1. Purpose and spirituality: Involvement in something bigger than yourself, like religion or ethics.
2. Identity: How you see yourself and the roles you play in life.
3. Beliefs and values: Your personal belief system and what matters to you.
4. Capabilities and skills: Your abilities and what you can do.
5. Behaviours: The specific actions you take.
6. Environment: Your surroundings and the people around you.

These levels organize and guide your actions. Changing something in a lower level can affect higher levels, and vice versa, according to NLP theory. (GoodTherapy Editor Team, 2018)

Programmers using NLP in their AI models can use the available algorithms found within the database to diagnose, understand and help with their therapeutic journey much easier, Lyssn, a US-based company, is developing technology similar to that of Ieso Digital Health. Founded by Imel and CEO David Atkins, Lyssn utilizes psychology and machine learning expertise from the University of Washington.

Both companies train their artificial intelligence (AI) systems using transcripts of therapy sessions. A few hundred transcripts are manually annotated to highlight the significance of therapists' and clients' words at different points during the session. For instance, the AI learns to recognize greetings, mood discussions, empathetic responses, and follow-up on previous session topics.

This technology operates akin to sentiment analysis algorithms used in movie reviews or translation tools between languages. However, instead of translating languages, the AI translates natural language into a unique representation of a therapy session, akin to a barcode or fingerprint. These representations reveal the role of different utterances in the session.

For example, the fingerprint of a session can indicates the time spent on constructive therapy versus casual conversation. Such insights enable therapists, like Stephen Freer, Ieso's chief clinical officer, to prioritize constructive therapy elements in future sessions, enhancing therapeutic effectiveness. (Jee, 2021)

Ethical considerations of AI in Psychotherapy

To better understand and navigate ethical concerns in AI implementation, it is prudent to utilize existing ethical frameworks. One such framework, proposed by Floridi and Cowls, consists of five principles. (Floridi & Cowls, 2019) The framework comprises five essential principles: (a) avoiding harm, (b) promoting good, (c) honoring autonomy, (d) ensuring fairness, and (e) providing transparency. (Floridi & Cowls, 2019). The first four principles are derived from medical ethics, while explicability, added due to the unique characteristics of digital technologies like AI, ensures clarity and understanding. (Teagarden, 2007)

Table 1: Five key ethics principles for mental health chatbots. (Floridi & Cowls, 2019)

AI Ethics Principle	Ethical Requirements
Non-maleficence	Avoid causing physical, social or mental harm to users
Beneficence	Ensure that interventions do good or provide real benefit to users
Respect for autonomy	Respect users' values and choices
Justice	Treat users without unfair bias, discrimination, or inequity
Explicability	Provide to user's sufficient transparency about the nature and effects of the technology and be accountable for its design and deployment

Apart from the above discussed ethical considerations, the following too could be considered as significant ethical issues due to AI:

- A key issue is the risk of bias in AI algorithms, where these systems reflect the biases present in the data they're trained on (Verma, 2019). If the data itself holds biases, the AI will reproduce them, potentially leading to unfair treatment of patients, especially those from marginalized groups, and exacerbating existing inequalities in healthcare. (Johnson & Verdicchio, 2023)
- Another concern pertains to accountability and transparency in decision-making. The integration of AI in mental health diagnoses prompts inquiries into the accountability for diagnosis accuracy and decision-making procedures. Ensuring transparency in the decision-making processes of AI systems is crucial, along with clinicians comprehending the limitations and possible biases inherent in AI diagnoses. (Murphy et al., 2021)
- Privacy and confidentiality represent significant ethical issues in AI implementation within psychiatry. (Johnson & Verdicchio, 2023b). The vast amounts of sensitive personal data processed and stored by AI systems pose risks of unintended use or unauthorized access. Moreover, there's concern regarding AI being employed for surveillance or control, potentially encroaching upon patient privacy and autonomy. (Prakash et al., 2022)

AI-based tools have demonstrated remarkable efficacy in addressing mental health conditions through virtual Cognitive Behavioral Therapy (CBT) models, machine learning tools, natural language processing (NLP), and a diverse array of chatbots. However, it is imperative to thoroughly examine their ethical dimensions before integrating them into the therapeutic landscape. Minor lapses in ethical considerations, such as breaches in confidentiality, violations of privacy rights, infringements on client autonomy, lack of accountability, and biases in algorithms, must be meticulously addressed with scientific rigor. These ethical considerations are pivotal in defining AI as a trusted partner in the therapeutic journey of healing.

Future contemplations for AI in Psychotherapy

"*AI is a mirror, reflecting not only our intellect, but our values and fears.*"
– Ravi Narayanan, VP of Insights and Analytics, Nisum

Artificial intelligence's remarkable utility extends far and wide, offering unprecedented benefits. Its capacity to revolutionize psychotherapeutic interventions on a global scale is particularly noteworthy. This advancement not only captures the world's attention but also serves as a comforting refuge for individuals hesitant to seek intervention due to various unknown factors. However, while AI undoubtedly benefits billions, it is not without its

flaws. Addressing these shortcomings is crucial not only for advancing alongside AI but also for fostering its development into a more humane tool for the betterment of society.

According to the American Counselling Association the following are significant recommendations proposed for the future of AI in Psychotherapy. (Further Recommendations Regarding the Future of AI in Counseling, n.d.)

1. Advocate for further research in AI applications.
2. Foster collaboration across disciplines for AI development in counselling.
3. Stay vigilant against bias and discrimination in AI systems.
4. Recognize that the benefits and risks of AI evolve with ongoing research and experience, necessitating updates to guidelines.
5. Emphasize the importance of human connections alongside AI.
6. Consider incorporating AI-related topics into the ACA Code of Ethics revision.
7. Continuously assess and contemplate the ethical implications of AI implementation.
8. Monitor the use of AI in diagnostic and assessment processes.
9. Create AI tools centered on client needs and preferences.
10. Integrate ethical AI training into counsellor professional development programs. (Further Recommendations Regarding the Future of AI in Counseling, n.d.)

CONCLUSIONS

Exploring the potential of AI to address psychological challenges presents an opportunity for innovative and impactful solutions, potentially yielding profound positive outcomes. However, it is crucial to underscore the critical need for diligent oversight and continuous refinement of AI systems. Without vigilant monitoring and modification, there is a risk of misuse, particularly concerning the data collected by chatbots and other online tools. Such misuse could violate the ethical rights of individuals involved. Therefore, it is imperative to advance towards a future where responsible and ethical AI practices are prioritized. This journey demands collaborative efforts from all stakeholders involved in AI development, implementation, and regulation. Additionally, fostering transparency, accountability, and ongoing evaluation mechanisms can help mitigate risks and ensure the ethical use of AI in mental health interventions.

Limitations

Limitations of the review include the exclusion of non-English language studies, potential publication bias favoring studies with positive results, and the rapidly evolving nature of AI technologies in psychotherapy.

REFERENCES

Åhs, F., Mozelius, P., & Dobslaw, F. (2020). Artificial Intelligence Supported Cognitive Behavioral Therapy for Treatment of Speech Anxiety in Virtual Reality Environments. doi: 10.34190/EAIR.20.030

AI for precision mental health. (n.d.). The Alan Turing Institute. https://www.turing.ac.uk /research/research-projects/ai-precision-mental-health

Bzdok, D., & Meyer-Lindenberg, A. (2018). Machine Learning for Precision Psychiatry: Opportunities and challenges. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3(3), 223–230. https://doi.org/10.1016/j.bpsc.2017.11.007

Castañeda-Garza, G., Ceballos, H. G., & Mejía-Almada, P. G. (2023). Artificial intelligence for Mental Health: A review of AI solutions and their future. In Chapman and Hall/CRC eBooks (pp. 373–399). https://doi.org/10.1201/b23345-22

Chen, M., Hao, Y., Hwang, K., Wang, L., & Wang, L. (2017). Disease prediction by machine learning over big data from healthcare communities. IEEE Access, 5, 8869–8879. https://doi.org/10.1109/access.2017.2694446

Craft, A. (2001). Neuro-linguistic programming and learning theory. The Curriculum Journal, 12(1), 125-136. doi: 10.1080/09585170010017781

Dellazizzo L, Percie du Sert O, Phraxayavong K, Potvin S, O'Connor K, Dumais A. Exploration of the dialogue components in Avatar Therapy for schizophrenia patients with refractory auditory hallucinations: A content analysis. Clin Psychol Psychother. 2018 Nov;25(6):878–885. doi: 10.1002/cpp.2322.

Dellazizzo L, Potvin S, Phraxayavong K, Lalonde P, Dumais A. Avatar therapy for persistent auditory verbal hallucinations in an ultra-resistant schizophrenia patient: a case report. Front Psychiatry. 2018;9:131. doi: 10.3389/fpsyt.2018.00131. doi: 10.3389/fpsyt.2018.00131.

du Sert OP, Potvin S, Lipp O, Dellazizzo L, Laurelli M, Breton R, Lalonde P, Phraxayavong K, O'Connor K, Pelletier JF, Boukhalfi T, Renaud P, Dumais A. Virtual reality therapy for refractory auditory verbal hallucinations in schizophrenia: a pilot clinical trial. Schizophr Res. 2018 Feb 24; doi: 10.1016/j.schres.2018.02.031. Epub ahead of print(forthcoming)S0920-9964(18)30108-7

Fiske, A., Henningsen, P., & Buyx, A. (2019). Your robot therapist will see you now: Ethical Implications of Embodied Artificial intelligence in Psychiatry, Psychology, and Psychotherapy. Journal of Medical Internet Research, 21(5), e13216. https://doi.org/10.2196/13216

Freeman D, Haselton P, Freeman J, Spanlang B, Kishore S, Albery E, Denne M, Brown P, Slater M, Nickless A. Automated psychological therapy using immersive virtual reality for treatment of fear of heights: a single-blind, parallel-group, randomised controlled trial. Lancet Psychiatry. 2018 Aug;5(8):625–632. doi: 10.1016/S2215-0366(18)30226-8.

Floridi, L., & Cowls, J. (2019). A unified framework of five principles for AI in society. Harvard Data Science Review. https://doi.org/10.1162/99608f92.8cd550d1

Further recommendations regarding the future of AI in counseling. (n.d.). https://www.counseling.org/knowledge-center/ai-work-group/further-recommendations-regarding-the-future-of-ai-in-counseling

GoodTherapy Editor Team. (2018). Neuro–Linguistic Programming. https://www.goodtherapy.org/learn-about-therapy/types/neuro-linguistic-programming.

Graham, S., Depp, C. A., Lee, E., Nebeker, C., Tu, X., Kim, H., & Jeste, D. V. (2019). Artificial Intelligence for Mental Health and Mental Illnesses: an Overview. Current Psychiatry Reports, 21(11). https://doi.org/10.1007/s11920-019-1094-0

Grimley, B. (2015). What is neurolinguistics programming, (nlp)? The development of a grounded theory of neuro-linguistic programming within an action research journey. Retrieved from http://www.achieving-lives.co.uk/files/Files/final%20dissertation%20v66%2012_12_2015%20for%20Viva%20on%2021_12_2015%20with%20corrections%20v66.pdf

Jee, C. (2021). The therapists using AI to make therapy better. MIT Technology Review. https://www.technologyreview.com/2021/12/06/1041345/ai-nlp-mental-health-better-therapists-psychology-cbt/

Jeste, D. V., Glorioso, D., Lee, E., Daly, R., Graham, S., Liu, J., Paredes, A. M., Nebeker, C., Tu, X., Twamley, E. W., Van Patten, R., Yamada, Y., Depp, C. A., & Kim, H. (2019). Study of independent living residents of a continuing care senior housing community: Sociodemographic and clinical associations of cognitive, physical, and mental health. The American Journal of Geriatric Psychiatry, 27(9), 895–907. https://doi.org/10.1016/j.jagp.2019.04.002

Johnson DG, Verdicchio M. Ethical AI is not about AI. Commun ACM. 2023;66:32–4. https://doi.org/10.1145/3576932.

Kudliskis, V. (2013). Neuro-linguistic programming and altered states: Encouraging preparation for learning in the classroom for students with special education needs. British Journal of Special Education, 40(2), 86-95. doi: 10.1111/1467-8578.12020

Luban, J. A. (2010). Rapid rapport using neurolinguistic programming for improved health care outcomes. California Journal of Oriental Medicine. Retrieved from http://lamorindaacupuncture.com/wp-content/uploads/2010/06/CJOM-NLP-Article1.pdf

Marr, B. (2023). AI in Mental Health: Opportunities and Challenges in developing intelligent digital therapies. Forbes. https://www.forbes.com/sites/bernardmarr/2023/07/06/ai-in-mental-health-opportunities-and-challenges-in-developing-intelligent-digital-therapies/?sh=6667b82e5e10

McCarthy, J., Minsky, M., Rochester, N., & Shannon, C. E. (2006). A proposal for the Dartmouth Summer Research Project on Artificial Intelligence, August 31, 1955. Ai Magazine, 27(4), 12. https://doi.org/10.1609/aimag.v27i4.1904

Minerva, F., & Giubilini, A. (2023). Is AI the future of mental healthcare? Topoi-an International Review of Philosophy, 42(3), 809–817. https://doi.org/10.1007/s11245-023-09932-3

Murphy K, di Ruggiero E, Upshur R, Willison DJ, Malhotra N, Cai JC, Malhotra N, Lui V, Gibson J. Artificial intelligence for good health: a scoping review of the ethics literature. BMC Med Ethics. 2021; 22:1–17. https://doi.org/10.1186/S12910-021-00577-8/FIGURES/4.

Ohio State University 2015. Feb 25, [2019-04-22]. Virtual patient: Avatar shows emotions as he talks to med students https://www.sciencedaily.com/releases/2015/02/150225151639.htm

Prakash S, Balaji JN, Joshi A, Surapaneni KM. Ethical Conundrums in the application of artificial intelligence (AI) in healthcare—a scoping review of reviews. J Personalized Med. 2022. https://doi.org/10.3390/JPM12111914.

Rein BA, McNeil DW, Hayes AR, Hawkins TA, Ng HM, Yura CA. Evaluation of an avatar-based training program to promote suicide prevention awareness in a college setting. J Am Coll Health. 2018 Jul;66(5):401–411. doi: 10.1080/07448481.2018.1432626.

Shatte, A., Hutchinson, D., & Teague, S. (2019). Machine learning in mental health: a scoping review ofBain EE, Shafner L, Walling DP, Othman AA, Chuang-Stein C, Hinkle J, Hanina A. Use of a novel artificial intelligence platform on mobile devices to assess dosing compliance in a phase 2 clinical trial in subjects with schizophrenia. JMIR Mhealth Uhealth. 2017 Feb 21;5(2):e18. doi: 10.2196/mhealth.7030.

Teagarden, J. R. (2007). Chapter 22. The Clinical Bioethics of Safe Medication Practices. In The American Pharmacists Association eBooks. https://doi.org/10.21019/9781582120928.ch22

Terra, M., Baklola, M., Ali, S. et al. Opportunities, applications, challenges and ethical implications of artificial intelligence in psychiatry: a narrative review. Egypt J Neurol Psychiatry Neurosurg 59, 80 (2023). https://doi.org/10.1186/s41983-023-00681-z

Verma S. Weapons of math destruction: how big data increases inequality and threatens democracy. Vikalpa. 2019; 44:97–8. https://doi.org/10.1177/0256090919853933.

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