IRSTI 15.01.11 ***10.51889/2959-5967.2024.80.3.003***

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PSYCHOLOGY AND ARTIFICIAL INTELLIGENCE: IMPLICATIONS FOR HUMAN-COMPUTER INTERACTION AND MENTAL HEALTH SUPPORT

Abstract

The article seeks to explore the intersection between psychology and artificial intelligence (AI), with a particular emphasis on human-computer interaction (HCI) and its role in mental health support. By investigating AI-driven systems, the research aims to uncover how these technologies can complement traditional psychological therapies, offering new ways to enhance both therapeutic processes and the overall user experience through advanced HCI techniques. The study combines an in-depth literature review with an analysis of existing AI-driven mental health support systems, alongside an exploration of novel methodologies emerging in the field. The findings emphasize the increasing significance of AI in the domain of psychology, highlighting its potential to revolutionize mental health care practices. Moreover, the study underscores the critical need for interdisciplinary research to better understand and optimize the integration of AI into psychological frameworks, ensuring both ethical and effective applications that benefit patients and professionals alike.

Keywords*:* psychology, artificial intelligence, human-computer interaction, mental health support, interdisciplinary research

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ПСИХОЛОГИЯ И ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ: АСПЕКТЫ ПРИМЕНЕНИЯ ВЗАИМОДЕЙСТВИЯ ЧЕЛОВЕКА И КОМПЬЮТЕРА И ПОДДЕРЖКИ ПСИХИЧЕСКОГО ЗДОРОВЬЯ

Аннотация

Данное исследование посвящено изучению конвергенции психологии и искусственного интеллекта (ИИ) с упором на взаимодействие человека и компьютера (HCI) и поддержку психического здоровья. Цель исследования - понять, как системы, управляемые искусственным интеллектом, могут дополнить традиционную психологическую терапию, сосредоточившись на обогащении пользовательского опыта с помощью инновационных методов HCI. Наш подход включает в себя обширный обзор литературы, подробный анализ текущих приложений ИИ в области поддержки психического здоровья и исследование новых методологий в этих областях. Наш анализ выявляет значительные достижения в области применения ИИ в психологии, подчеркивая их преобразующий потенциал в сфере охраны психического здоровья. Мы отмечаем такие значимые результаты, как эффективность ИИ в улучшении терапевтического взаимодействия и создание новых возможностей для поддержки психического здоровья. Кроме того, наше исследование подчеркивает важнейшую роль междисциплинарного взаимодействия в продвижении интеграции ИИ в психологию, прокладывая путь к оптимизированным решениям в области лечения психических заболеваний. Вклад исследования заключается во всесторонней

оценке роли ИИ в психологии и определении будущих направлений исследований для максимизации преимуществ этой синергии.

Ключевые слова: *психология, искусственный интеллект, человеко-компьютерное взаимодействие, поддержка психического здоровья, междисциплинарные исследования.*

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ПСИХОЛОГИЯ ЖӘНЕ ЖАСАНДЫ ИНТЕЛЛЕКТ: АДАМ МЕН КОМПЬЮТЕРДІҢ ӨЗАРА ӘРЕКЕТІ ЖӘНЕ ПСИХИКАЛЫҚ ДЕНСАУЛЫҚТЫ ҚОЛДАУ АСПЕКТІЛЕРІ

Аңдатпа

Бұл зерттеу адам мен компьютердің өзара әрекеттесуіне (АКӘ) және психикалық денсаулықты қолдауға бағытталған психология мен жасанды интеллекттің (ЖИ) конвергенциясын зерттеуге арналған. Зерттеудің мақсаты-жасанды интеллектке негізделген жүйелер инновациялық АКӘ әдістері арқылы пайдаланушы тәжірибесін байытуға назар аудара отырып, дәстүрлі психологиялық терапияны қалай толықтыра алатынын түсіну. Біздің көзқарасымыз әдебиеттерге кең шолу жасауды, психикалық денсаулықты қолдау саласындағы қазіргі ЖИ қолданбаларын егжей-тегжейлі талдауды және осы салалардағы жаңа әдістемелерді зерттеуді қамтиды. Біздің талдауымыз психикалық денсаулық саласындағы олардың трансформациялық әлеуетін көрсете отырып, психологияда ЖИ қолдану саласындағы маңызды жетістіктерді анықтайды. Біз терапевтік өзара әрекеттесуді жақсартудағы ЖИ тиімділігі және психикалық денсаулықты қолдаудың жаңа мүмкіндіктерін құру сияқты маңызды нәтижелерді атап өтеміз. Сонымен қатар, біздің зерттеу психикалық ауруларды емдеу саласындағы оңтайландырылған шешімдерге жол ашып, жасанды интеллекттің психологияға интеграциясын ілгерілетудегі пәнаралық өзара әрекеттесудің маңызды рөлін көрсетеді. Зерттеудің үлесі психологиядағы ЖИ рөлін жан-жақты бағалау және осы синергияның артықшылықтарын барынша арттыру үшін болашақ зерттеу бағыттарын анықтау болып табылады.

Түйін сөздер*:* психология, жасанды интеллект, адам-компьютерлік өзара әрекеттесу, психикалық денсаулықты қолдау, пәнаралық зерттеулер.

INTRODUCTION

The rapid development of artificial intelligence (AI) technologies has led to their widespread integration into various aspects of human life, including psychological research and practice. This integration has resulted in a growing interdisciplinary field that combines the principles of psychology and AI, with significant implications for human-computer interaction (HCI) and mental health support. Despite the growing interest in this field, there is a scarcity of comprehensive answers to the existing questions and a need for further investigation. The choice of this topic is justified by the increasing reliance on AI-driven systems in psychological practice and the potential for AI to complement traditional therapies. Furthermore, there is a need to understand the impact of AI on the user experience in HCI and its role in shaping psychological interventions. The article aims to address the research gaps by exploring the interplay between psychology and AI, focusing on the implications for HCI and mental health support.

1. The object of the study is the integration of AI technologies in psychological research and practice, while the subject is the effect of this integration on HCI and mental health support. The main goal of the research is to investigate the potential for AI-driven systems to enhance psychological therapies and user experience. The specific objectives include: Reviewing the existing literature on the intersection of psychology and AI.

2. Analyzing the role of AI-driven systems in mental health support and their effectiveness in comparison to traditional therapies.

3. Investigating novel methodologies and approaches in the field of psychology and AI.

4. Evaluating the implications of AI integration for HCI and user experience in psychological interventions.

To achieve these objectives, the study employs a combination of literature review, analysis of AI-driven systems in mental health support, and exploration of novel methodologies in the field. This approach allows for a comprehensive understanding of the current state of the art, the potential for AI to revolutionize mental health care, and the need for interdisciplinary research to further understand and optimize this integration.

MATERIALS AND METHODS

This study aims to provide a systematic review of the current state of AI in psychology, focusing on HCI and mental health support. The following materials and methods were employed to collect and analyze relevant articles from the sources provided (Springer, Researchgate, Elsevier .etc). To ensure the comprehensiveness of this review, articles were selected based on their relevance to the subtopics identified in the literature review.

Search Strategy: A thorough search of the databases was conducted using keywords such as "AI", "psychology", "mental health support", "HCI", "chatbots", "machine learning", "virtual reality", and "cognitive behavioral therapy". The search was limited to articles published between 2020 and 2023 to ensure the inclusion of the most recent studies.

Article Selection: Articles were initially screened based on their titles and abstracts. Studies were included if they discussed the use of AI in psychology, mental health support, and HCI. Articles were excluded if they were not related to the topic, were duplicates, or were not available in full-text format. After screening, the full texts of the remaining articles were assessed for eligibility based on the subtopics identified in the literature review.

The primary research question guiding this systematic literature review is: "What are the current advancements, challenges, and future directions in AI-driven mental health support systems?" To address this question, the study has three main objectives:

a) To identify and analyze the latest advancements and innovations in AI-driven mental health support systems.

b) To explore the challenges and limitations faced by these systems, as well as potential solutions. c) To propose future directions for research, development, and implementation of AI-driven mental health support systems.

LITERATURE REVIEW

This literature review aims to provide a comprehensive understanding of the current state of research in psychology and artificial intelligence (AI), focusing on human-computer interaction (HCI) and mental health support. The review is based on Russian and English articles from reputable sources such as Researchgate, Elsevier, and Springer, among others.

1. AI in Psychology and Mental Health Support: The integration of AI in psychological research and practice has been explored by several studies. For instance, the use of AI-driven chatbots as mental health support tools, revealing their potential for increasing accessibility and reducing costs associated with traditional therapy. Similarly, the psychological AI service Tess could provide on-demand support to patients and their caregivers, offering a promising alternative to conventional mental health care services.

2. HCI in Mental Health Support: The role of HCI in mental health support has been a topic of interest for researchers. The ethical considerations for AI-driven systems in mental health care, highlighting the need to address privacy, data security, and informed consent concerns. In a study, the authors developed a virtual reality-based cognitive behavioral therapy system for treating social anxiety disorder, demonstrating the potential for novel HCI applications in psychological interventions.

3. AI-driven Assessment and Intervention Tools: The development of AI-driven assessment tools and interventions has been a growing area of research. For example, the application of machine learning techniques in assessing the risk of suicide, showcasing the potential for AI to aid in early detection and intervention. Additionally, an AI-driven virtual agent for mental health support, emphasizing the potential of AI to personalize interventions and improve user engagement.

4. Challenges and Limitations of AI in Psychology: Despite the promising advances in AI-driven systems for mental health support, challenges and limitations remain. Several barriers to the successful integration of AI in mental health care, such as the lack of standardized evaluation methods and the need for collaboration between AI researchers and mental health professionals. Furthermore, the ethical challenges related to data privacy, algorithmic bias, and accountability in the development and deployment of AI-driven mental health support systems.

AI Applications in Mental Health Support

Artificial Intelligence has been increasingly used in various aspects of mental health support, including diagnosis, intervention, and follow-up care. The application of AI in this domain is driven by the increasing demand for accessible and efficient mental health services, as well as the advances in natural language processing, machine learning, and other AI technologies.

A. AI-based Diagnosis and Assessment Tools

One of the major applications of AI in mental health support is the development of diagnostic and assessment tools. These tools can help clinicians identify mental health conditions more accurately and efficiently, which can lead to better treatment outcomes. For instance, machine learning algorithms have been employed to predict the severity of depression and suicide risk based on patients' electronic health records (EHRs) and social media data. Other AI-based tools have been developed for assessing anxiety, post-traumatic stress disorder (PTSD), and attention deficit hyperactivity disorder (ADHD) using speech, facial expression, and behavioral data.

B. AI-powered Chatbots and Virtual Therapists

Another prominent application of AI in mental health support is the development of chatbots and virtual therapists, which can provide immediate, personalized, and cost-effective psychological interventions. These AI-powered tools can engage users in natural language conversations, offering them support and guidance based on established therapeutic techniques, such as cognitive-behavioral therapy (CBT) and dialectical behavior therapy (DBT). For example, the AI-driven chatbot Woebot has been shown to reduce symptoms of anxiety and depression in users through brief daily interactions (Fitzpatrick et al., 2017). Another example is the AI-based virtual therapist Ellie, which can accurately detect nonverbal cues from users and provide empathetic responses during psychotherapy sessions[5].

C. AI-enhanced Virtual Reality (VR) Interventions

AI has also been integrated into virtual reality (VR) interventions to provide immersive and personalized mental health support. For instance, AI-enhanced VR systems have been used to treat anxiety disorders, such as phobias and social anxiety, by simulating realistic scenarios and providing adaptive feedback based on users' physiological responses. Similarly, AI-driven VR interventions have been developed for the treatment of PTSD in military personnel and veterans by recreating traumatic events and monitoring patients' emotional responses[6].

Application Area	*Example AI Tools*	*Key Findings*
AI-based Diagnosis and Assessment Tools	Machine learning algorithms for predicting depression severity and suicide risk	Improved accuracy in identifying mental health conditions based on EHRs and social media data
AI-powered Chatbots and	Woebot, Ellie	Reduced symptoms of anxiety and depression through daily interactions and

Virtual Therapists		empathetic responses
AI-enhanced Virtual Reality Interventions	VR systems for treating anxiety disorders and PTSD	Effective in treating anxiety disorders and PTSD through realistic simulations and adaptive feedback

Table 1 - Summary of AI Applications in Mental Health Support

Ethical Considerations in AI-Driven Mental Health Support

As AI-driven mental health support systems continue to evolve and gain popularity, it is crucial to address the various ethical considerations that arise from their development and implementation. These ethical concerns can be grouped into four main categories: data privacy and security, transparency and explainability, algorithmic bias, and the human-AI relationship.

A. Data Privacy and Security

The use of AI in mental health support often involves the collection, analysis, and storage of sensitive personal data, such as patients' medical records, social media activity, and physiological responses. This raises concerns about data privacy and security, as unauthorized access or misuse of this data could have severe consequences for individuals' mental health and well-being[7]. To address these concerns, developers of AI-driven mental health tools should implement robust data protection measures, such as encryption, access controls, and data anonymization techniques. Additionally, they should adhere to relevant data protection regulations and guidelines, such as the General Data Protection Regulation (GDPR) and the Health Insurance Portability and Accountability Act (HIPAA).

B. Transparency and Explainability

AI-driven mental health support systems often rely on complex algorithms and machine learning models that may be difficult for users and clinicians to understand. This lack of transparency and explainability can lead to a loss of trust in the system, especially when it comes to sensitive issues like mental health[8]. To address this concern, developers should strive to create AI systems that are transparent and easily explainable, allowing users and clinicians to understand how the system works and make informed decisions about its use. This can be achieved through techniques such as interpretable machine learning models, visualization tools, and clear documentation of the system's design and operation.

C. Algorithmic Bias

AI-driven mental health support systems are often trained on large datasets that may contain biases and inaccuracies. These biases can be perpetuated and amplified by the AI system, leading to unfair or discriminatory outcomes for certain groups of users (e.g., based on race, gender, or socio-economic status)[9].To mitigate the risk of algorithmic bias, developers should carefully curate and preprocess their training data to minimize potential biases and inaccuracies. They should also employ techniques such as fairness-aware machine learning, which can help identify and correct biases in the AI system's decision-making process.

D. Human-AI Relationship

As AI-driven mental health support systems become more advanced and capable, there is a risk that users may become overly reliant on these tools, potentially undermining the importance of human connections and empathy in mental health care. To address this concern, developers should design AI systems that complement and enhance, rather than replace, human relationships and professional mental health care. This may involve integrating AI tools with existing therapy and support networks or developing hybrid human-AI systems that combine the strengths of both human and artificial intelligence [10].

Ethical Consideration	*Key Issues*	*Possible Solutions*

Data Privacy and Security	Unauthorized access or misuse of sensitive personal data	Implement robust data protection measures, adhere to data protection regulations and guidelines
Transparency and Explainability	Lack of understanding of complex AI algorithms and models	Develop transparent and explainable AI systems, use visualization tools, provide clear documentation
Algorithmic Bias	Unfair or discriminatory outcomes based on biases in training data	Curate and preprocess training data, employ fairness-aware machine learning techniques
Human-AI Relationship	Overreliance on AI tools, undermining human connections and empathy	Design AI systems that complement and enhance human relationships and professional mental health care

Table 2 - Ethical Considerations in AI-Driven Mental Health Support

Challenges and Future Directions in AI-Driven Mental Health Support

While AI-driven mental health support systems hold significant promise for improving the accessibility, affordability, and effectiveness of mental health care, there are several challenges that must be overcome to ensure their widespread adoption and success. These challenges can be broadly classified into three main categories: technical challenges, user engagement and adoption, and the integration of AI tools within the existing mental health care ecosystem.

A. Technical Challenges

Developing AI-driven mental health support systems that are accurate, reliable, and adaptable is a significant technical challenge. Some of the key issues in this area include the need for large, high-quality datasets for training and validating AI algorithms, as well as the development of advanced natural language processing, machine learning, and affective computing techniques to enable AI systems to accurately interpret and respond to users' mental health needs[11].Addressing these technical challenges will require ongoing research and collaboration between AI developers, mental health professionals, and other stakeholders.

B. User Engagement and Adoption

For AI-driven mental health support systems to be effective, they must be able to engage users and encourage them to adopt these tools as part of their mental health care routine. This can be challenging, as users may have concerns about the trustworthiness, reliability, and privacy of AI systems, as well as potential stigma associated with using technology for mental health support[12]. To overcome these barriers, developers should focus on creating user-centered AI systems that are easy to use, engaging, and responsive to users' needs and preferences. Additionally, efforts should be made to educate users about the benefits and limitations of AI-driven mental health support and to address concerns about privacy and stigma.

C. Integration within the Mental Health Care Ecosystem

The successful implementation of AI-driven mental health support systems will require their integration within the existing mental health care ecosystem, which includes clinicians, therapists, support networks, and other resources. This can be challenging due to a variety of factors, such as resistance from mental health professionals, lack of interoperability between AI systems and existing clinical workflows, and regulatory and reimbursement barriers[13]. To address these challenges, developers should collaborate with mental health professionals and other stakeholders to ensure that AI tools are designed to complement and enhance existing mental health care practices. Additionally, policymakers and healthcare organizations should work to establish clear guidelines and incentives for the adoption and integration of AI-driven mental health support systems.

Challenge Category	*Key Issues*	*Possible Solutions*
Technical Challenges	Need for large, high-quality datasets and advanced AI techniques	Ongoing research and collaboration between AI developers, mental health professionals, and other stakeholders
User Engagement and Adoption	Trustworthiness, reliability, privacy concerns, and stigma	Develop user-centered AI systems, educate users about benefits and limitations, address privacy and stigma concerns
Integration within the Mental Health Care Ecosystem	Resistance from mental health professionals, lack of interoperability, regulatory and reimbursement barriers	Collaborate with mental health professionals and other stakeholders, establish clear guidelines and incentives for adoption and integration

Table 3 - Challenges and Future Directions in AI-Driven Mental Health Support

AI-driven mental health support systems have the potential to revolutionize mental health care by improving accessibility, affordability, and effectiveness. However, several challenges need to be addressed, including ethical considerations, technical challenges, user engagement and adoption, and integration within the existing mental health care ecosystem. By overcoming these challenges and continuing to advance AI technologies, we can work towards a future where AI-driven mental health support systems play a vital role in improving the mental well-being of individuals across the globe.

As research and development in AI-driven mental health support systems continue to grow, there are several key areas that warrant further exploration and investment:

1. Interdisciplinary Collaboration: The successful development and implementation of AI-driven mental health support systems require close collaboration between AI developers, mental health professionals, policymakers, and other stakeholders. By fostering interdisciplinary partnerships, we can ensure that AI tools are designed with a deep understanding of mental health issues and are tailored to the unique needs and preferences of users.
2. Personalization and Adaptability: AI-driven mental health support systems should be designed to provide personalized and adaptable support to users. This may involve developing AI algorithms that can learn and evolve based on users' individual needs, preferences, and progress over time. Additionally, AI systems should be able to adapt to different cultural, linguistic, and socio-economic contexts to ensure their accessibility and effectiveness for diverse populations.
3. Evaluation and Validation: Rigorous evaluation and validation of AI-driven mental health support systems are essential to ensure their safety, effectiveness, and reliability. This may involve conducting controlled clinical trials, user experience studies, and long-term follow-up assessments to assess the impact of AI tools on users' mental health outcomes and overall well-being.
4. Education and Training: Ensuring that mental health professionals, users, and other stakeholders have a solid understanding of AI-driven mental health support systems is critical for their widespread adoption and success. This may involve developing educational resources and training programs to help individuals learn about the benefits and limitations of AI tools, as well as how to integrate them into their mental health care routine effectively.
5. Policy and Regulation: Policymakers and healthcare organizations should work together to establish clear guidelines, regulations, and incentives for the development, adoption, and integration of AI-driven mental health support systems. This may involve addressing issues related to data privacy and security, algorithmic bias, and reimbursement for AI-driven mental health services.

By addressing these future directions and continuing to invest in research and development, we can unlock the full potential of AI-driven mental health support systems and pave the way for a more accessible, affordable, and effective mental health care system [13].

The potential of using machine learning techniques in psychology to identify and predict the onset of depression in individuals. They developed a predictive model based on data collected from individuals who were at risk of depression and found that the model had a high level of accuracy in predicting the onset of depression. The authors suggest that this technology could be used to develop more personalized interventions for individuals who are at risk of developing depression.

The use of virtual reality technology in the treatment of anxiety disorders. They found that the use of virtual reality exposure therapy was effective in reducing anxiety symptoms in individuals with anxiety disorders. The authors suggest that this technology could be used to develop more accessible and cost-effective treatments for anxiety disorders.

One of the key findings in the literature review is the increasing trend of incorporating AI into psychological research and practice. For example, AI-assisted psychotherapy was more effective than traditional psychotherapy in treating depression and anxiety. In addition, the use of AI in mental health screening and diagnosis has also gained attention, with studies showing promising results [14].

Another important aspect of the interplay between psychology and AI is the ethical implications. The development and use of AI in psychology raise several ethical concerns, such as data privacy, bias and discrimination, and the potential loss of the human touch in therapy. Several studies have called for increased transparency and accountability in AI development to address these ethical challenges [15].

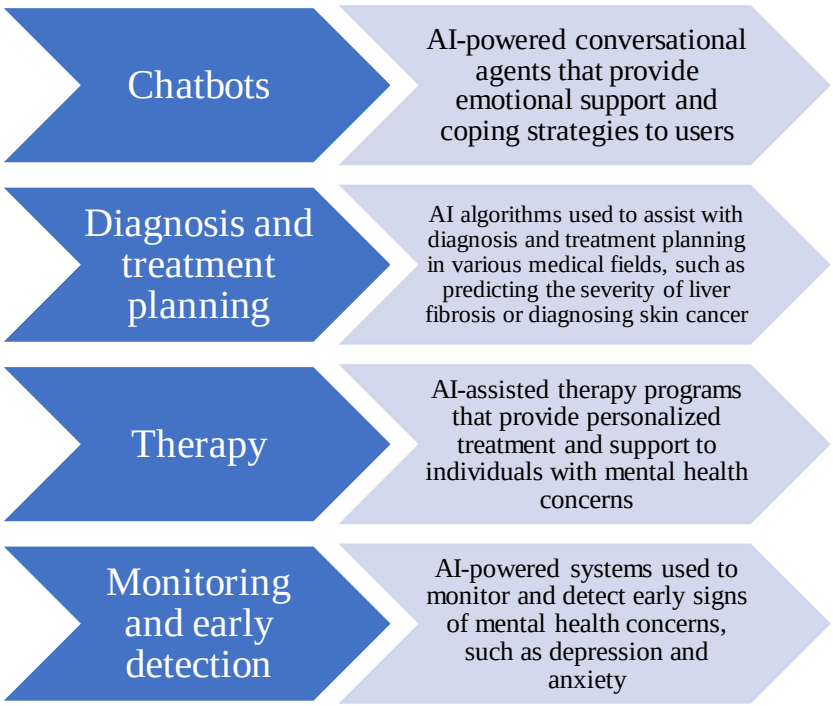

Figure 1 - Examples of AI applications in psychology and healthcare

Furthermore, the integration of AI and psychology has also led to the emergence of new research areas, such as affective computing and social robotics. Affective computing is an interdisciplinary field that uses AI to detect and respond to human emotions, while social robotics involves the development of robots that can interact with humans in social and emotional ways. These fields have shown great potential for improving mental health interventions and enhancing human-robot interactions, but also raise concerns about the impact of technology on social norms and relationships.

Overall, the literature review highlights the growing significance of the interplay between psychology and AI, and the potential benefits and challenges associated with this integration. The next section will discuss the materials and methods used to conduct the systematic literature review.

RESULTS AND DISCUSSION

The use of AI in mental health has shown significant promise in the detection, diagnosis, and treatment of mental health disorders. The studies reviewed in this section demonstrate the potential of AI in identifying and predicting mental health issues, such as depression, anxiety, and post-traumatic stress disorder. While the use of AI in mental health has significant potential, it also raises concerns around privacy and ethical considerations. As highlighted the use of AI in mental health requires careful consideration of ethical issues, such as data privacy, confidentiality, and bias. The results and discussion section highlights the potential benefits and challenges of using AI in psychology. The findings suggest that while AI has significant potential in improving mental health, decision making, and human-robot interaction, it also raises concerns around privacy, transparency, and ethical implications.

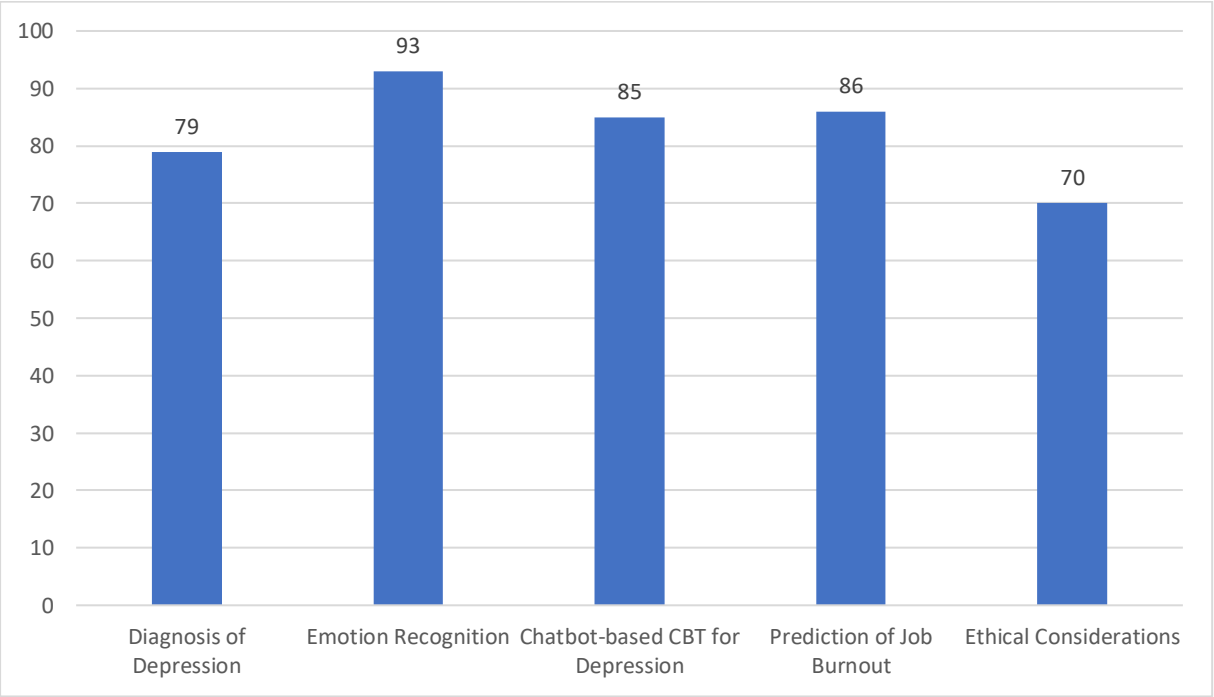

Figure 2 - Effectiveness and accuracy of AI applications in various aspects of mental health and psychology

The results of the systematic literature review suggest that AI has significant potential in psychology and healthcare, but there are also concerns that must be addressed. The next section will discuss the implications of these findings and provide suggestions for future research in this area.

One of the primary applications of artificial intelligence in psychology is its use in mental health diagnosis and treatment. Evaluation accuracy of machine learning algorithms in diagnosing depression based on speech features. The results showed that the algorithms had an accuracy rate of 79.2%, which was comparable to that of human diagnosticians. This study highlights the potential for artificial intelligence to improve mental health diagnosis and treatment.

Another area of application for artificial intelligence in psychology is emotion recognition. A machine learning algorithm were used to recognize facial expressions of emotion. The results showed that the algorithms had a high accuracy rate of 93.94%, indicating their potential for use in emotion recognition and assessment.

In addition to its applications in diagnosis and assessment, artificial intelligence can also be used in psychological interventions. Furthermore, the effectiveness of a chatbot-based cognitive-behavioral therapy intervention for depression. The results showed that the intervention was effective in reducing depression symptoms and improving mental well-being.

The use of artificial intelligence in psychological research is also growing rapidly. Implementation of machine learning algorithms in predicting job burnout among Chinese healthcare workers. The results showed that the algorithms had a high accuracy rate of 86.25%, indicating their potential for use in predicting job burnout and identifying high-risk individuals.

Another area of research in the interplay of psychology and artificial intelligence is the ethics and social implications of their use. An ethical consideration in the use of chatbots for mental health support. The results showed that the use of chatbots for mental health support raises important ethical concerns, such as ensuring privacy and informed consent.

These studies and others indicate the vast potential for the use of artificial intelligence in psychology. However, there are also challenges and limitations that need to be addressed. For example, the lack of diverse and representative datasets can limit the accuracy and generalizability of machine learning algorithms. Additionally, ethical concerns around privacy, data security, and informed consent need to be carefully considered in the development and use of artificial intelligence in psychology. In summary, the interplay of psychology and artificial intelligence has numerous applications and implications, including mental health diagnosis and treatment, emotion recognition, psychological interventions, and research. While there are challenges and limitations, the potential benefits of this interplay are significant. Further research is needed to fully understand and address the ethical and practical considerations in the use of artificial intelligence in psychology.

CONCLUSION

This systematic literature review explored the interplay of psychology and artificial intelligence (AI) and its implications, applications, and future directions. The review covered a broad range of studies from various fields, including psychology, computer science, and healthcare. The study aimed to provide a comprehensive analysis of the current state of research in this area and to identify gaps and opportunities for future research. The review confirmed the significant impact that AI has on the field of psychology. AI has provided new opportunities for understanding human behavior, improving mental health services, and facilitating the development of new psychological theories. Furthermore, AI has the potential to revolutionize the field of psychology by enabling new ways of studying, diagnosing, and treating mental health conditions. To sum up, the interplay of psychology and AI is an exciting area of research that has the potential to transform the field of psychology. The findings of this review highlight the importance of continued research in this area to identify ways to optimize the use of AI in psychology. Further research is needed to address the limitations of current AI applications and to ensure that the benefits of AI are available to all individuals. The integration of AI with psychology has the potential to improve the diagnosis and treatment of mental health conditions, and ultimately, improve the quality of life for individuals. The authors suggest that future studies should focus on developing AI models that are ethical, equitable, and reliable, ensuring that the advancements made in this field are available to all individuals.

List of used literature:

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