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Article

The Role of AI in Mental Health: Breaking Down Barriers for Men

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Abstract: This article examines the transformative role of artificial intelligence (AI) in mental health, with a particular focus on its potential to break down barriers for men facing mental health challenges. Historically, men have been less likely to seek help for mental health issues due to societal stigma, cultural expectations, and a reluctance to express vulnerability. AI technologies, including chatbots, generative AI, and machine learning algorithms, offer innovative solutions to address these challenges by providing accessible, anonymous, and personalized support. This paper explores how AI-powered mental health applications can create safe spaces for men to engage with their emotions, seek help, and access resources tailored to their specific needs. Furthermore, it highlights the importance of integrating AI into traditional mental health care models to enhance outreach and reduce stigma. By fostering a more inclusive approach to mental health support, AI has the potential to empower men, promote emotional resilience, and ultimately improve mental health outcomes in this underserved demographic.

Keywords: AI; mental health; men's mental health; digital therapy; stigma reduction; accessibility; mental health support; chatbots; teletherapy; data privacy; personalized treatment

I. Introduction

A. Overview of Mental Health Challenges for Men

Mental health challenges among men have long been a topic of concern, yet they remain shrouded in societal stigma and cultural expectations. Traditional masculinity often dictates that men should be tough, stoic, and self-reliant, leading many to view emotional vulnerability as a weakness. This cultural narrative can create significant barriers to men acknowledging their mental health struggles or seeking help. As a result, many men suffer in silence, feeling isolated in their experiences and reluctant to reach out for support.

The impact of this stigma is profound and far-reaching. Research reveals that men are less likely to seek professional help for mental health issues compared to women. For instance, the American Psychological Association highlights that men are almost twice as likely to die by suicide than women. This statistic illustrates the urgent need for interventions that specifically target men's mental health. The National Institute of Mental Health (NIMH) further underscores this issue, noting that while men and women experience similar rates of depression and anxiety, the expression of these conditions often differs. Men may manifest their struggles through anger, substance abuse, or aggression, rather than openly discussing their feelings, which can exacerbate their situations.

Moreover, alarming statistics reflect the state of men's mental health in the U.S. Approximately 6 million men experience depression annually, yet a substantial proportion remains untreated. Disturbingly, men account for about 75% of all suicide deaths in the United States. These figures not only highlight the critical need for effective mental health resources tailored to men but also emphasize the necessity of changing societal perceptions that discourage help-seeking behavior.

B. Purpose of the Article

The purpose of this article is to explore how artificial intelligence (AI) can effectively address the mental health challenges faced by men and contribute to breaking down the barriers imposed by societal stigma and cultural expectations. AI has the potential to revolutionize mental health care by

offering innovative solutions that are accessible, anonymous, and tailored to individual needs. By leveraging technologies such as generative AI, machine learning, and chatbots, we can create a supportive environment where men feel empowered to discuss their mental health concerns without fear of judgment.

In particular, this article will emphasize the importance of these innovative solutions in reshaping the mental health landscape for men. As we examine the role of AI in providing personalized support, encouraging help-seeking behaviors, and fostering emotional resilience, we will also highlight the significance of creating a cultural shift that normalizes vulnerability and emotional expression among men. By addressing these challenges through technology, we can pave the way for a more inclusive approach to mental health that ultimately leads to improved well-being for men everywhere.

II. Understanding the Stigma Around Male Mental Health

A. Historical Context

The stigma surrounding male mental health is deeply rooted in historical perceptions of masculinity and traditional gender roles. For centuries, societal norms have dictated that men should embody traits such as strength, stoicism, and self-reliance. These ideals are often portrayed in literature, media, and cultural narratives, reinforcing the belief that expressing emotions or seeking help is a sign of weakness. This emotional suppression has profound implications for men's mental health, as it discourages them from acknowledging their feelings or reaching out for support when needed.

The reluctance to seek help stems from these long-standing cultural expectations. Men may fear being judged or viewed as less capable if they admit to struggling with their mental health. This pressure can lead to a range of negative consequences, including increased anxiety, depression, and a higher likelihood of turning to unhealthy coping mechanisms, such as substance abuse or aggression. Furthermore, the idea that men should be "tough" can result in internalized shame when they experience vulnerability, further isolating them from potential sources of support.

This historical context reveals a critical need for a cultural shift that encourages men to embrace emotional expression and vulnerability. As society begins to recognize the importance of mental health, it is essential to challenge and change these outdated notions of masculinity, creating an environment where men feel safe and empowered to seek help.

B. Current Statistics

Current statistics paint a troubling picture of men's mental health and highlight the significant rates of untreated mental health issues. According to the **National Institute of Mental Health (NIMH)**, approximately **6 million men** in the United States experience depression each year, yet only a fraction of these individuals seek professional help. This disparity is compounded by the fact that men are less likely than women to acknowledge their mental health struggles, with research indicating that only about **30%** of men with diagnosable mental health conditions receive treatment.

The impact of stigma on help-seeking behavior is particularly evident in suicide statistics. The **American Foundation for Suicide Prevention** reports that men account for approximately **75% of all suicide deaths** in the U.S. This alarming statistic underscores the consequences of untreated mental health issues and the dangers of societal pressures that discourage men from seeking help.

Moreover, men often exhibit different symptoms of mental health disorders compared to women, leading to a misunderstanding of their struggles. Instead of expressing feelings of sadness or hopelessness, men may display irritability, anger, or engage in risk-taking behaviors, which can be misinterpreted as mere personality traits rather than signs of deeper emotional distress. This further complicates the issue, as it can lead to misdiagnosis or a lack of recognition of the need for support.

In summary, the stigma surrounding male mental health is both a historical and current issue that manifests in the reluctance to seek help and the alarming rates of untreated mental health

conditions. Understanding these dynamics is essential for developing effective strategies and interventions aimed at encouraging men to prioritize their mental health and seek the support they need.

III. The Role of AI in Mental Health Support

A. Introduction to AI Technologies

Artificial intelligence (AI) refers to the simulation of human intelligence in machines programmed to think and learn. In recent years, AI has found numerous applications across various fields, including healthcare, where it is increasingly being utilized to support mental health initiatives. AI technologies encompass a range of tools, such as **generative AI**, **chatbots**, and **machine learning**, which can provide personalized and responsive support to individuals seeking mental health resources.

Generative AI involves algorithms that can create new content based on patterns learned from existing data. In mental health, this technology can be used to generate tailored responses and coping strategies based on users' inputs, fostering a more engaging and relevant experience.

Chatbots, powered by natural language processing, serve as virtual assistants that can engage users in conversation, providing immediate emotional support and guidance. These chatbots can be available 24/7, offering an accessible option for those who may feel uncomfortable reaching out for help through traditional means.

Machine learning, a subset of AI, enables systems to learn from data over time, improving their responses and recommendations as they gather more information about users' preferences and behaviors. By analyzing patterns in data, machine learning algorithms can identify at-risk individuals, predict mental health crises, and provide timely interventions, making mental health support more proactive and efficient.

Together, these AI technologies create a robust framework for enhancing mental health care, allowing for innovative solutions that can address the unique needs of individuals, particularly men who may face barriers in seeking help.

B. How AI Can Break Down Barriers

One of the most significant advantages of AI in mental health support is its potential to **break down barriers** that often prevent individuals from seeking help. The anonymity provided by AI-driven platforms can significantly reduce the stigma associated with mental health discussions. Many men may feel uncomfortable discussing their feelings face-to-face, fearing judgment or ridicule. However, engaging with a chatbot or an AI-powered app offers a degree of privacy that can encourage users to open up about their struggles without the fear of being labeled or misunderstood.

By providing **anonymous support**, AI technologies create a safe space for men to explore their emotions, ask questions, and seek guidance on mental health issues. This anonymity can facilitate a more candid dialogue about feelings, fears, and challenges, ultimately leading to better mental health outcomes.

Moreover, AI can tailor interactions to meet individual needs and preferences, making mental health support more personalized and relevant. By utilizing data from user interactions, AI systems can learn about specific users, adjusting their responses and recommendations accordingly. For example, an AI chatbot might recognize a user's pattern of expressing anxiety about work-related stress and provide targeted coping strategies or resources related to stress management in the workplace.

This level of customization allows for a more empathetic approach to mental health care, making individuals feel understood and supported in a way that feels relevant to their unique circumstances. By adapting to users' specific needs, AI not only enhances user engagement but also fosters a sense of ownership over one's mental health journey.

IV. AI-Powered Solutions for Men's Mental Health

A. Chatbots and Virtual Therapists

AI chatbots and virtual therapists represent a revolutionary approach to mental health support, particularly for men who may feel uncomfortable seeking traditional therapy. These AI-powered tools provide immediate, accessible support, allowing users to engage in conversations about their feelings, thoughts, and experiences at any time of the day.

AI chatbots utilize natural language processing (NLP) to understand user inputs and respond in a conversational manner, making interactions feel more human-like. For example, platforms like **Woebot** offer a chatbot that engages users in cognitive behavioral therapy (CBT) techniques. Users can talk about their feelings and receive instant feedback, coping strategies, and mindfulness exercises tailored to their specific needs.

Case studies of successful implementations further highlight the effectiveness of these technologies. For instance, a study evaluating the **Woebot** app found that users reported a significant reduction in symptoms of anxiety and depression after regular interactions with the chatbot. Participants expressed appreciation for the anonymity and ease of use, which encouraged them to engage with mental health resources they might have otherwise avoided. Another example is the **Wysa** app, which combines chatbot interactions with evidence-based therapeutic techniques, demonstrating notable improvements in users' mental health outcomes through continuous engagement.

These AI chatbots serve as an essential first step in addressing mental health issues, offering immediate support that can bridge the gap until users seek further assistance from human professionals if necessary.

B. Generative AI for Personalized Guidance

Generative AI plays a crucial role in providing personalized guidance in mental health care, allowing for tailored coping strategies that resonate with individual users. This technology can analyze users' responses and generate appropriate advice, recommendations, or content based on their unique circumstances.

For instance, apps like **Replika** utilize generative AI to create virtual companions that engage users in meaningful conversations. As users interact with the app, it learns about their preferences, emotional states, and challenges, allowing it to offer personalized responses and coping strategies. This level of customization enhances user engagement and fosters a supportive environment for individuals to express their feelings and concerns.

In another example, the **Youper** app integrates generative AI to facilitate mood tracking and emotional check-ins, generating insights and suggestions based on users' reported feelings. By creating tailored coping strategies—such as mindfulness exercises, breathing techniques, or journal prompts—these apps empower users to take proactive steps in managing their mental health.

By leveraging generative AI, mental health apps can not only provide immediate support but also foster long-term emotional resilience by equipping users with personalized tools to navigate their mental health journeys.

C. Machine Learning for Predictive Analysis

Machine learning has the potential to transform mental health care by enabling predictive analysis that identifies at-risk individuals through data analysis. By processing vast amounts of data, machine learning algorithms can detect patterns and trends that indicate a decline in mental health, allowing for timely intervention.

For example, platforms that incorporate machine learning can analyze user behavior, such as changes in communication patterns or mood tracking over time, to identify individuals who may be experiencing increased anxiety or depression. This predictive capability enables mental health providers to intervene early, offering support before issues escalate into more severe conditions.

Early intervention strategies enabled by AI can include automated alerts to mental health professionals when a user exhibits concerning behavior or signs of distress. Additionally, machine learning can help personalize outreach efforts, tailoring communication and resources to individuals based on their risk profiles and historical data.

A practical implementation of this technology can be seen in initiatives like **Ginger**, which utilizes machine learning to provide on-demand mental health support. By analyzing user interactions and identifying patterns, Ginger can connect individuals with appropriate resources or professionals, ensuring timely care and support.

In summary, AI-powered solutions, including chatbots, generative AI, and machine learning, offer innovative approaches to addressing men's mental health challenges. By providing immediate support, personalized guidance, and predictive analysis, these technologies not only enhance accessibility but also foster a proactive approach to mental health care, empowering men to take charge of their emotional well-being.

V. Enhancing Traditional Mental Health Care Models with AI

A. Integrating AI into Existing Frameworks

Integrating AI into existing mental health care frameworks has the potential to significantly enhance the quality and accessibility of services available to individuals, particularly men who may face barriers in seeking help. By complementing traditional therapy with AI tools, mental health professionals can provide a more holistic approach to care that addresses a wider range of needs.

AI can serve as an adjunct to conventional therapy by offering resources such as chatbots for immediate support, personalized mental health apps, and tools for tracking mood and progress. For example, therapists can recommend specific AI-driven platforms for clients to use between sessions, encouraging ongoing engagement and self-reflection. This integration allows therapists to gather data on clients' experiences, enabling them to tailor their therapeutic approaches more effectively.

The **benefits of a hybrid model** for mental health care are numerous. Combining traditional therapeutic methods with AI tools can improve treatment outcomes by providing continuous support outside of scheduled sessions. This ongoing interaction can help clients maintain motivation and develop healthier coping strategies, ultimately leading to better mental health. Furthermore, this model can alleviate some of the burdens on mental health professionals, allowing them to focus on more complex cases that require in-depth human intervention.

By harnessing the strengths of both traditional therapy and AI technologies, mental health care providers can create a more flexible and responsive system that meets the diverse needs of individuals, especially men who may otherwise feel uncomfortable or reluctant to seek help.

B. Expanding Outreach and Accessibility

AI plays a crucial role in expanding outreach and accessibility to mental health resources, particularly for underserved populations who may lack access to traditional mental health services. Geographical barriers, socioeconomic factors, and cultural stigmas often prevent individuals from seeking help, but AI-driven platforms can help bridge these gaps by providing accessible solutions.

For instance, teletherapy services powered by AI can connect individuals in remote or underserved areas with licensed mental health professionals. These platforms can facilitate virtual sessions, allowing clients to receive care from the comfort of their homes, eliminating travel barriers, and increasing the likelihood of engagement. AI technologies can also help identify underserved populations through data analysis, allowing mental health organizations to target their outreach efforts more effectively.

Moreover, AI-driven digital platforms can address barriers to care by offering anonymous support and resources, which can be particularly appealing for men who may fear judgment or stigma. By providing an environment where individuals can seek help without disclosing their identities, these platforms encourage more people to engage with mental health resources.

Additionally, AI can help tailor mental health outreach campaigns to specific demographics by analyzing user data and behavior. This customization ensures that mental health initiatives resonate with different communities, addressing cultural and linguistic barriers that may exist.

In summary, enhancing traditional mental health care models with AI not only complements existing therapeutic frameworks but also expands outreach and accessibility to underserved populations. By leveraging the capabilities of AI, mental health care providers can create more inclusive and effective solutions that empower individuals, particularly men, to prioritize their mental health and seek the support they need.

VI. Challenges and Ethical Considerations

A. Potential Limitations of AI in Mental Health

While the integration of AI into mental health care presents numerous benefits, there are also potential limitations that must be acknowledged. One significant risk is the **over-reliance on technology** for support, which can lead to individuals neglecting the value of human interaction in therapeutic settings. While AI can provide immediate assistance and resources, it cannot replace the empathy, intuition, and understanding that a trained mental health professional offers. Many individuals benefit from the relational aspects of therapy, which involve building trust and rapport, elements that AI cannot replicate.

Moreover, ensuring the **quality and accuracy of AI responses** is crucial. AI systems rely on algorithms that are only as effective as the data they are trained on. If the data is biased or incomplete, the AI's responses may be misleading or inappropriate, potentially exacerbating users' mental health issues rather than alleviating them. Continuous monitoring and improvement of AI models are necessary to ensure that they provide reliable, evidence-based support.

Additionally, there is a risk that users may misinterpret AI interactions as a substitute for professional help. Individuals might choose to engage solely with AI tools instead of seeking therapy, which could delay the necessary intervention required for more severe mental health conditions. Thus, while AI can be a valuable tool, it is essential to emphasize that it should complement, rather than replace, traditional mental health care.

B. Ethical Concerns

The deployment of AI in mental health care raises several **ethical concerns**, primarily centered around data privacy and security. Mental health data is sensitive and personal, and the use of AI technologies requires the collection and processing of this information. Ensuring that users' data is handled securely and in compliance with regulations, such as the **Health Insurance Portability and Accountability Act (HIPAA)** in the United States, is paramount. Breaches of data privacy can lead to significant repercussions for individuals, including stigma and loss of trust in mental health services.

Furthermore, the **importance of human oversight** in AI applications cannot be overstated. While AI can assist in identifying trends and providing support, human judgment is essential in interpreting data and responding to complex emotional situations. Mental health professionals must oversee AI tools to ensure that they are being used ethically and effectively. This oversight can also help mitigate risks related to algorithmic biases that may affect treatment recommendations or the assessment of user needs.

Moreover, ethical considerations should extend to the transparency of AI systems. Users should be informed about how their data is used and the limitations of AI tools. This transparency fosters trust and empowers individuals to make informed decisions about their mental health care.

VII. Future Directions in AI and Men's Mental Health

A. Emerging Trends and Innovations

As AI technologies continue to evolve, they present exciting **emerging trends and innovations** that could significantly impact men's mental health care. One of the most promising advancements

is the development of **natural language processing (NLP)** algorithms that can better understand and interpret the nuances of human language. This improved understanding allows AI systems to engage in more meaningful conversations, providing support that feels more personal and relatable. Future iterations of chatbots and virtual therapists are likely to incorporate advanced NLP techniques, enhancing their ability to respond empathetically to users' needs.

Another trend is the increasing integration of **wearable technology** and AI. Devices that monitor physiological data, such as heart rate variability or sleep patterns, can provide valuable insights into an individual's mental health status. By combining this data with AI algorithms, mental health professionals can gain a more comprehensive understanding of a client's well-being and tailor interventions accordingly. For example, an AI system could alert users to potential mental health crises based on changes in their physiological metrics, prompting timely support or intervention.

Furthermore, there is a growing potential for the development of **community-driven AI platforms** that foster peer support. By leveraging the collective experiences of users, these platforms can create a sense of belonging and community, encouraging men to share their experiences and coping strategies. Such innovations not only enhance user engagement but also help destigmatize mental health discussions among men.

B. Recommendations for Stakeholders

To fully realize the potential of AI in addressing men's mental health challenges, it is essential for stakeholders—including tech developers, mental health professionals, policymakers, and community organizations—to collaborate effectively. **Encouraging collaboration** between tech developers and mental health experts is crucial for creating AI solutions that are both technically sound and clinically relevant. By working together, these stakeholders can ensure that AI tools are grounded in psychological principles, evidence-based practices, and user-centered design.

Moreover, stakeholders should prioritize the **importance of ongoing research and evaluation** of AI applications in mental health. As new technologies emerge, it is vital to conduct rigorous studies that assess their effectiveness, usability, and impact on mental health outcomes. This research should include diverse populations to ensure that AI tools are equitable and accessible to all men, regardless of background or socioeconomic status.

Additionally, ethical considerations must be woven into the development process from the outset. By establishing clear guidelines and ethical frameworks, stakeholders can help protect users' data privacy and ensure responsible AI usage. Ongoing dialogue about the ethical implications of AI in mental health will be essential to maintaining public trust and promoting the responsible adoption of these technologies.

VIII. Conclusion

A. Summary of Key Points

In summary, AI is poised to play a critical role in addressing the pervasive challenges of male mental health. Traditional societal norms and cultural expectations have contributed to significant barriers that prevent men from seeking the support they need. The stigma surrounding mental health issues, combined with the reluctance to express vulnerability, has resulted in alarming statistics regarding untreated mental health conditions and high rates of suicide among men.

AI technologies, including chatbots, generative AI, and machine learning, offer innovative solutions that can enhance mental health care by providing immediate, anonymous support and tailored resources. These tools can break down barriers, making mental health resources more accessible to men who may otherwise feel uncomfortable seeking help. The integration of AI into traditional mental health frameworks can also expand outreach efforts, enabling better engagement with underserved populations.

Ultimately, the potential of AI to empower men and promote emotional well-being is significant. By leveraging AI solutions, we can foster a more supportive environment that encourages men to embrace their emotional health and seek the assistance they require.

B. Call to Action

As we move forward, it is essential to **encourage further exploration of AI solutions in mental health**. Stakeholders—including mental health professionals, technology developers, policymakers, and community organizations—must collaborate to create and implement effective AI-driven tools that address the unique challenges men face in mental health care.

Additionally, it is crucial to **urge stakeholders to prioritize inclusive and accessible care for men**. This includes investing in research and development of AI applications that cater to diverse populations, ensuring that mental health resources are equitable and sensitive to the needs of all individuals.

By fostering a culture of openness and support around mental health, we can dismantle the stigma that hinders men from seeking help. It is our collective responsibility to advocate for innovative solutions that empower men to take charge of their mental well-being and cultivate a society that values emotional health as a vital component of overall wellness. The future of men's mental health care is bright with the potential of AI; it is time for us to embrace it and make meaningful strides toward improving mental health outcomes for men everywhere.

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