Exploring Mental Health Professionals' Perceptions and Acceptance of AI-Based Screening Tools

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ABSTRACT

INTRODUCTION: Artificial intelligence (AI) is being widely incorporated into healthcare, including mental health screening, showing promise for improving efficiency, early detection, and accessibility. Capturing mental health professionals' perceptions and acceptance of AI in mental health screening is essential for its ethical and effective implementation. **MATERIALS AND METHODS:** This qualitative study, using purposive sampling, explored the views of psychiatrists, clinical psychologists, psychiatric social workers, and postgraduate psychiatry trainees. In-depth, semi-structured interviews were conducted to collect data on participants' attitudes toward AI, perceived usefulness, ease of use, trust in AI-generated assessments, and ethical concerns. Thematic analysis was used to analyse the interviews. **RESULTS:** A cautiously optimistic attitude among mental health professionals regarding the use of AI in mental health screening emerged from the thematic analysis. Key themes included AI as a supportive but limited tool; irreplaceable clinical judgement; conditional trust in AI based on the context and complexity of cases; ethical and privacy concerns; the need for empirical validation; and concerns regarding clinical safety due to potential false positives and negatives. **CONCLUSION:** The potential of AI to improve access and efficiency in screening, particularly for triage purposes, was acknowledged by mental health professionals. However, trust in AI was conditional and depended on transparency, empirical evidence, and preservation of clinician oversight. AI in mental health screening was viewed as a tool to support, not replace, clinical expertise.

KEYWORDS: artificial intelligence, mental health screening, mental health professionals, perceptions.

INTRODUCTION

Artificial intelligence (AI) is rapidly evolving and is being incorporated into healthcare, including mental health. AI-based screening tools for mental health assessments are increasingly used as they are faster and more widely accessible.[1] Mental health professionals express mixed opinions regarding the use of AI-based tools. While the majority acknowledge AI's ability to assist in clinical work, significant concerns remain.[2] One of them is the risk of misdiagnosis if algorithms are relied upon too heavily, especially in complex cases where clinical nuance is essential.[3] Another major concern involves privacy and data security, given the sensitivity of psychiatric information and the increasing trend of healthcare-related breaches.[4] Apart from these technical challenges, AI also lacks empathy and the ability to form therapeutic relationships, which are essential for psychiatric evaluation and management.[5] Further, ethical and regulatory issues add to the hesitation, emphasising the need for clear guidelines for AI-based tools to ensure safety and accountability.[6]

The existing literature highlights the significance of AI in advancing mental healthcare. One study reported that the professionals' adoption of AI tools was based on peer recommendations and observed use more than their own trust.[7] AI applications are also becoming more common in online mental health services, where they are used to improve accessibility, reach larger populations, and offer more personalised support.[8]

By analysing large datasets and subtle behavioural patterns, they can contribute to early detection of mental health concerns, ongoing symptom monitoring, and tailored treatment planning.[8]

Despite these benefits, significant concerns remain. AI-based tools face risks of algorithmic bias, digital exclusion, and ethical dilemmas related to generative models, as well as barriers to implementation in real-world practice.[10] There are also unanswered questions about how to check AI's accuracy, explain its risk assessment processes, and safeguard patient data, which are critical for patient and clinician trust. Protecting the therapeutic relationship is also critical.[11]

As reliance on AI-based tools is increasing, multiple studies have examined patients' perceptions of AI tools. Only a few studies have explored the physician perspective, especially how mental health professionals perceive these tools. As psychiatry differs from other branches of medicine, where confidentiality and empathy play an important role in patient care, their acceptance is crucial for ensuring that AI is used responsibly, ethically, and in alignment with patient needs. This qualitative study addresses this gap by examining how psychiatrists, psychologists, psychiatric social workers, and trainees perceive AI-based screening tools and addressing the following research question: What are the perceptions, attitudes, and ethical concerns of mental health professionals toward the use of artificial intelligence in mental health screening, and what factors influence their willingness to adopt such tools in clinical practice? This study aims to identify the key facilitators and barriers to acceptance, supporting the safe and effective integration of AI into mental healthcare.

MATERIALS AND METHODS

This was a qualitative study conducted in the Department of Psychiatry at Father Muller Medical College, Mangalore, a tertiary care hospital in 2025. Eleven mental health professionals, namely psychiatrists (n=4), clinical psychologists (n=3), psychiatric social workers (n=2), and postgraduate trainees in psychiatry (n=2), were included through purposive sampling, based on the principle of data saturation, to ensure diverse representation of clinical and academic perspectives within the field. Inclusion criteria required participants to be 18 years or older, have at least one year of clinical experience in mental health settings, and be willing and able to provide informed consent.

In-person, semi-structured interviews were used to capture the data. Interviews were conducted in a private, confidential setting using an interview guide that explored key constructs, namely i) attitudes toward AI in mental health screening, ii) perceived usefulness and ease of use, iii) trust in AI-generated assessments, and iv) ethical concerns, including privacy, accountability, and clinical judgement. The interviews lasted 45-60 minutes and were audio-recorded with prior written consent. They were supplemented by field notes, transcribed verbatim, and anonymised using unique participant codes to ensure confidentiality. Braun and Clarke's (2006) six-phase thematic analysis framework was used by the primary investigator to analyse the data manually, including familiarisation, coding, theme development, theme review, theme definition, and report writing.[12] Peer debriefing sessions were held, and a qualitative research expert was consulted throughout the analysis to enhance credibility and rigour.

RESULTS

Eight major themes were identified, and the subthemes, connecting themes, and emerging themes were derived from the interview data using Braun and Clarke's (2006) thematic analysis framework.

Theme 1. Attitudes and perceptions towards artificial intelligence

The subthemes identified were i) scepticism and caution, and ii) general acceptance. Key insights indicated that AI is acceptable as a screening aid but not as a stand-alone diagnostic tool. Psychiatric disorders have a subjective nature because diagnoses rely heavily on a patient's self-reported symptoms and a clinician's observations of behaviour. There was caution and scepticism regarding AI's capacity to screen for psychiatric disorders.

Participants generally viewed AI as a useful tool for screening mental health problems, but were sceptical about its role in diagnosing psychiatric disorders. Most participants (90.9%) viewed AI as a supplement, rather than a replacement for human clinical competence. Illustrative quotes – P3: *"AI might be useful for screening, but cannot replace psychiatrists."* P1: *"AI might be useful in screening mental health disorders, but AI will not be useful for diagnostic and therapeutic purposes."*

Theme 2: Benefits and potential use of AI

Subthemes identified were i) operational efficiency, ii) accessibility, and iii) innovation in tools. Key insights indicated that potential uses include triage, as AI can save time, reduce workload, and help reach underserved populations. Several participants (90.9%) emphasized AI's potential to enhance healthcare by facilitating regular screening, increasing accessibility, and reducing clinician workload. With the added benefits of lowering stigma, AI is particularly desirable for triage, large-scale assessments, and outreach in communities. Illustrative quotes – P4: *"It can speed up the process of assessments in mental health."* P7: *"Patients with insight into illnesses can answer a self-administered questionnaire. If significant, the AI can show them possible nearby mental health practitioners and institutions that are easily accessible."* P11: *"Saves time, can reduce the stigma of attending a psychiatrist, a large number of patients can be screened faster, and can be used for community-level screening. Less workload on staff, can be done remotely, are more advantages for those who are literate and can operate gadgets".*

Theme 3: Risks and concerns of AI integration

Subthemes identified were risks of i) misdiagnosis, ii) clinical limitations, iii) cultural limitations, and iv) ethical gaps. Key insights indicated that participants fear missing serious illnesses or misinterpreting subtleties. AI may not grasp non-verbal cues or cultural nuances. Despite these limitations, there are serious concerns about AI's incapacity to read non-verbal signs, potential patient abuse (such as symptom pretending or underreporting), and the dangers of over-reliance on algorithms.

All participants expressed particular concerns about false positives and negatives, which could affect patient safety and treatment quality. Illustrative quotes- P10: *"It might miss guarded or psychotic patients."* P6: *"Miss out on facial, body changes, or behavioural symptoms that may be elicited by a medical practitioner, which is crucial for diagnosis."*

Theme 4: Ethical considerations

The subthemes identified were i) concern about false positives, and ii) avoiding false negatives. Key insight indicated that there is greater concern for missing severe cases than for overdiagnosis, although both are problematic.

All participants raised important ethical concerns regarding data privacy threats, algorithmic bias, and ambiguous responsibility in AI assessments. They were concerned about potential breaches of sensitive information, unclear decision-making procedures, and insufficient informed consent. Illustrative quotes: P7: *"Missing suicidality would be catastrophic."* P1:*"My concerns are how to go about AI documentation and its validity. Misidentification of symptoms by AI, overdiagnosis. AI may not understand cultural issues, AI may not understand emotional complexity, social and family context, ethical issues, as it may breach the privacy and confidentiality of patients/clients."*

Theme 5: Human interactions in mental health care

The subthemes identified were i) accountability, ii) bias, iii) privacy, and iv) confidentiality. Key insights included concerns regarding data security, bias, and the lack of clear responsibility for errors. A common theme was the importance of human interaction in mental healthcare.

All participants stressed the value of empathy, rapport, and therapeutic alliances, which AI cannot reproduce. They emphasized that mental healthcare is dependent on relational and emotional nuances that existing AI systems cannot capture. Illustrative quotes: P9: *"AI cannot assess a person's mood, affect, expression, side effects of medication, or elicit psychopathology. Privacy concerns can arise".* P7: *"I feel AI will not be able to assess the severity and extent of an illness, for example, in suicidal behaviour, the intent and severity might not be accurately assessed."* P4: *"Who is accountable when AI makes a mistake?"*

Theme 6: Trust and adoption conditions

The subtheme identified was irreplaceable human interaction. Key insights emphasised the need for rapport, trust, and empathy, which AI lacks. AI tool trust is based on rigorous clinical validation, algorithm transparency, regulatory approval, and user-friendliness.

All participants preferred tools that were consistent with professional norms and were supported by peer-reviewed evidence. Illustrative quotes: P10: *"The human touch can never be mimicked by AI."* P2: *"I trust 30% of an AI-generated screening result. A non-judgemental approach would make me trust AI, yes, my trust would vary with patient complexity or diagnosis. Clinical judgement is superior to AI."* P1: *"I do trust AI for screening, but will clarify with clinical judgement. Clinical judgement has a greater role than AI interpretation. AI cannot take over clinical judgement. clinical judgement is most important in screening and diagnosis, and management. AI cannot be used for diagnosis and therapeutic management of psychiatric disorders."*

Theme 7: Digital tools experiences

The subthemes identified were i) evidence and validation, and ii) user-friendliness. Key insights were that trust improves if AI is validated through trials and is integrated seamlessly with clear security protocols.

The majority of participants (81.8%) often used digital screening platforms and electronic health records despite having little direct experience with AI tools. Divergent views were expressed; some praised the efficiency improvements, while others were concerned that new technologies diminished clinical intuition and patient connections. Illustrative quotes: P1: *"If proven by evidence, I would consider using AI tools."* P8: *"I would like to first ensure that the privacy policies of AI tools will maintain confidentiality and endorsement by professional organisations, as well as patient satisfaction, will be taken into account."* P9: *"Evidence-based interventions and studies would help me to feel more confident about using AI tools."*

Theme 8. Risk sensitivities and diagnostic priorities

The subthemes identified were i) mixed use and ii) acceptance. A key insight was that all participants used tools like EMRs and Google Forms, but noted issues with impersonality or time burden.

Clinicians stressed the need to reduce false negatives, particularly in serious situations such as severe mental illness, psychosis, or suicide risk. The main concern was that rigid or poorly trained AI models might overlook high-risk individuals, raising clinical risk and liability, even though false positives were acknowledged as a problem. Illustrative quotes: P4: *"They are fast but impersonal."* P7: *"AI might miss something important, a particular condition or attribute, or AI flagging something wrongly, as it will interfere with the diagnosis-making and subsequently further management."*

The connecting themes of AI adoption in mental healthcare were i) AI as a complement, not a replacement; ii) ethical and legal frameworks; and iii) human connection, empathy, and communication in the mental status examination are critical prerequisites. There is a strong need for empirical, validated AI tools to ensure professional confidence in AI tools. Adoption and effectiveness will depend on patients' familiarity with and comfort using digital tools. Participants emphasised the necessity of clinical supervision with the integration of AI-generated results. Overall, the themes and connecting themes emphasised AI's advantages in initial screening and its drawbacks in screening complex cases, and the subjective aspects of mental health assessments. The alignment of these themes highlights that effective integration of AI tools in mental healthcare requires an ethical framework, measured reliance, and congruence with therapeutic principles.

Further analysis of the semi-structured interviews revealed four emerging themes reflecting mental health professionals' perceptions of and acceptance of AI-based screening tools, as shown in Table I.

DISCUSSION

Mental health professionals perceive that the integration of artificial intelligence (AI) into mental health screening has significant opportunities but also poses challenges. Most of the participants reported that AI might have the potential for early identification, triage, and access to mental healthcare. However, participants consistently emphasised that AI should be used in conjunction with clinical judgement. Figure 1 illustrates the conceptual framework of mental health professionals' trust and acceptance of AI tools, balancing perceived benefits, ethical concerns, and practical utility.

Table I: Emerging themes from the analysis of mental health professionals' perceptions of AI-based screening.

Theme	Description	Participant Quotes	Key Points
Conditional support for AI integration	While acknowledging AI's potential to help with structured and routine tasks, participants expressed cautious optimism about its integration into mental healthcare while denying unconditional support. Particularly in underprivileged areas, AI is viewed as a tool to improve access, streamline processes, and support early detection. However, dependability, moral application, and openness are necessary for acceptance.	"I think AI can be used to apply scales quickly and can adapt to patient responses. There can be a checklist in screening so that important things may not be missed." "AI can help in applying checklists or screening tools, but I wouldn't rely on it to make a diagnosis and therapeutics." – Participant 4, Psychiatrist	AI can help with structured, repetitive tasks. It improves early detection and workflow. conditional acceptance predicated on ethics, transparency, and dependability.
Clinical judgment is paramount and irreplaceable	The inability of AI to replace human clinical judgment was a major worry, particularly in intricate and nuanced cases involving trauma, psychosis, or emotional distress. Participants underlined that AI is deficient in three crucial areas: empathy, therapeutic rapport, and contextual understanding.	"I feel AI can help with the screening aspect, but cannot replace the complete role as such; it disrupts the doctor-patient relationship and interferes with rapport building, which is one of the important factors in a mental health assessment. Communications, empathy" "You can't program human empathy or the ability to read between the lines." – Participant 7, Clinical Psychologist	Relationship and empathy are indispensable traits. Accurate diagnosis and treatment depend on human interpretation.
Ethical considerations	Concerns about informed consent, data privacy, and the possibility of misdiagnosis as a result of an excessive reliance on algorithms have all been brought up. Clinical validity, data governance, and transparency are prerequisites for trust in AI. Risks mentioned by the participants included the incapacity to understand complicated emotions, a lack of therapeutic rapport, the possibility of mistakes, and susceptibility to data breaches.	"Mental health information is highly sensitive, so data privacy and confidentiality are of utmost importance. There can be concerns of potential data breach, unauthorised access, and misuse of data for commercial purposes; also, there is a risk of misdiagnosis, inaccurate prediction, and unintended harm" "If the algorithm is a black box, how do we trust it with patient data?" – Participant 2, Psychiatric Social Worker	Issues with consent and data privacy. Algorithmic error risk. Transparency and reliable data governance are essential.
Role of AI in Structured assessment.	Participants distinguished between the proper and inappropriate uses of AI, believing it to be useful for repetitive, structured tasks like risk flagging or questionnaire screening but insufficient for complex decision-making or severe psychopathology. Instead of replacing clinicians, AI was seen as an additional tool.	"My view is that AI will provide a quick assessment helpful for screening. Voice modulation, text identification by AI can be helpful in early identification." "It might flag a high score on a depression scale, but that doesn't tell you what's going on in the person's life." – Participant 9, Psychiatry Trainee	Effective in structured tasks (screening, flagging risks). Inadequate for complex and nuanced cases. Supports but does not replace human clinicians.

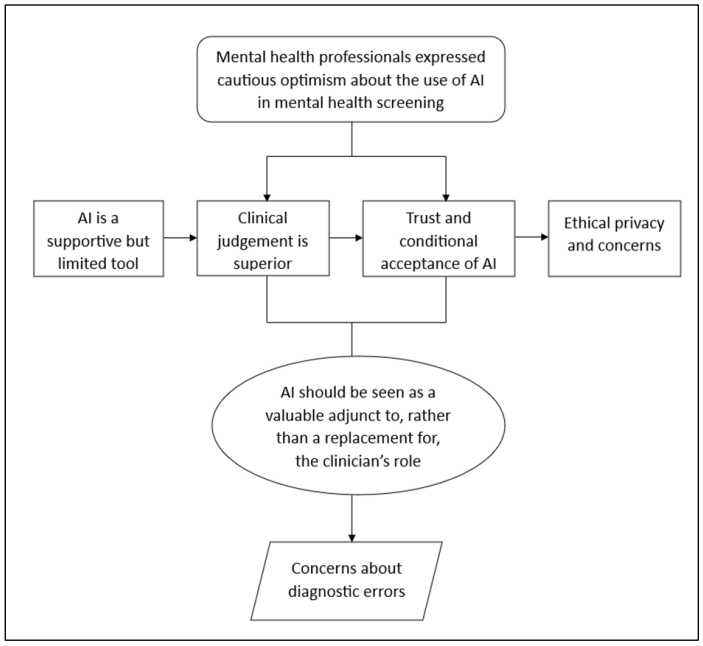

Figure 1: Conceptual framework of mental health professionals' trust and acceptance of AI tools, balancing perceived benefits, ethical concerns, and practical utility.

Attitudes and perceptions toward AI

Most of the participants (90.9%) viewed AI as a helpful tool for screening mental health disorders. This finding is in line with previous studies that highlight AI's potential to enhance early psychiatric condition detection.[13] Mental health professionals opined that AI might improve workflow efficiency, but it should remain a complementary tool. Previous studies have remarked the same.[14] For large-scale screening and triage, participants acknowledged that AI might decrease the burden and increase accessibility. AI has been demonstrated to aid in rapid screening in clinical care, according to similar findings.[15] Studies also show that AI can improve outreach to underserved groups, which will increase equitable access.[16] Participants also mentioned how it could assist in mental health evaluations, which could help to reduce stigma and improve access to mental health care.

Ethical implications

There were persistent worries about false positives and negatives, particularly in critical conditions like psychosis and suicidality. Security may be compromised if AI-generated results are relied upon excessively, according to experts. This is in line with previous studies that suggest AI may fail to notice important non-verbal or contextual cues when assessing patients with mental health issues.[17] Empathy and relational understanding cannot be replaced by automation, according to earlier research.[18] Ethical concerns like algorithmic bias, informed consent, and data protection were often highlighted by participants. They expressed concern about breaches of sensitive patient data, echoing assessments that highlighted the vulnerability of mental health data.[19] Additionally, it has been claimed that clinician confidence is weakened by the "black box" problem with AI systems.[20] Other papers also highlight the need for developers and practitioners to work together more closely to ensure ethical use.[21] Fairness and equity issues were also brought to light by recent surveys on healthcare AI.[22,23] Establishing clear accountability and oversight is therefore essential to resolving these problems.

Human factors in mental health

The results emphasised the significance of therapeutic connection, empathy, and rapport. AI cannot replicate these qualities, according to all experts. Other studies have presented similar claims that, despite AI's effectiveness, it cannot provide the confidence and empathy that are the foundation of psychiatric care.[17,18] These findings show that although technology can improve therapeutic relationships, it should never replace them. Participants emphasised that for people to trust AI, there must be clinical validation, government approval, and transparency. They favoured tools backed by peer-reviewed research and real trials. This is consistent with frameworks like the 'Theory of Trust and Acceptance of Artificial Intelligence Technology (TrAAIT) model', which links clinician trust to explainability and reliability.[19] Furthermore, research explains how the "black box" nature of AI undermines acceptance, emphasising the need to clarify how algorithms operate.[20] Several authors have urged developers, clinicians, and regulators to work together more closely to ensure dependable design.[21] Without such safeguards, professionals remain reluctant to apply AI in real-world scenarios.

Implementation hurdles

Lack of training, limited AI experience, and concerns about workflow integration were identified as common barriers. This is in line with studies indicating that a major obstacle to the use of AI is clinicians' lack of

training.[24] Broader healthcare studies also support the importance of digital literacy for successful adoption.[25] The need for specialised training approaches is indicated by reports of variations in acceptance based on the age and level of experience of clinicians.[26] These results imply that structured educational programmes are necessary to promote confidence in the use of AI. Concerns regarding professional identity were evident. While acknowledging that AI could reduce administrative burdens, some participants expressed concern that it would interfere with essential therapeutic functions. This is consistent with the healthcare literature's current discussions about automation and professional displacement, which may alter professional identity.[27] To ensure that the adoption of AI is seen as advantageous rather than hazardous, these concerns must be addressed through inclusive policymaking.

Limitations of study

One of the limitations of the study was a small sample size, although it was sufficient to reach thematic saturation. There might have been selection bias as purposive sampling methods were employed. This study was conducted at a single academic institution, which might limit the applicability to other settings, especially rural and other non-academic settings. Additionally, as qualitative analysis reflects subjective interpretation, interviewer and confirmation bias must be considered.

Implications

This study provides insights into the feasibility and challenges of using AI in mental health care screening and into how mental health professionals view AI-based screening tools, a topic that has received limited attention. Overall, this study provides a basis for developing evidence-based strategies to align emerging technologies with mental healthcare practice.

CONCLUSION

The mental health professionals in this study opined that artificial intelligence (AI) may be useful for initial mental health screening, but expressed cautious optimism. AI can be a helpful ally in early detection and enhancing access to mental health care. Participants believed that AI should be employed as a supportive tool, but not a definitive diagnostic aid. With responsible integration, AI has the potential to enhance the mental health screening process while addressing clinical and ethical considerations.

INSTITUTIONAL REVIEW BOARD (ETHICS COMMITTEE)

This study was approved by the Institutional Ethics Committee (FMIEC/CCM/693/2025).

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