Generative AI Summarization for Dynamic Tracking of Clinical Symptoms

TECHNOLOGY NUMBER: 2024-382

Technology ID
2024-382

Category
Diagnostics
Digital Health
Software
Life Sciences

Inventor
Mike Angstadt
Aman Taxali
Chandra Sripada

Further information
Drew Bennett
andbenne@umich.edu

Innovation Partnerships Tech Marketing Team
IPInventions@umich.edu

View online

OVERVIEW

inMyVoice is a digital mental health platform that leverages daily voice diaries and generative AI to give clinicians a precise, actionable view of a patient's well-being—making mental health symptom tracking both easier and more accurate.

- Converts manual, inconsistent symptom and mood reporting into brief, guided daily voice entries automatically analyzed for patterns and key details.
- Addresses the urgent market need for efficient and scalable mental health tools in clinics, telemedicine, and larger health systems.

Contact Innovation Partnerships with inquiries or to learn more about licensing opportunities at IPInventions@umich.edu.

BACKGROUND

Mental health care is essential and increasingly in demand, with millions seeking help for issues like depression, anxiety, and substance use. Current practices rely heavily on patients recalling and reporting their symptoms during clinic visits, a process that is often incomplete, inaccurate, and time-consuming. This reliance on memory not only takes up valuable clinician time but increases the risk of missed or misreported information, impacting care quality. Digital health

adoption and the push for more personalized care present a major opportunity for technologies that streamline symptom tracking and improve outcomes. Mental health disorders affect nearly 1 in 8 people globally (over 1 billion individuals) according to the World Health Organization[1]. Depression and anxiety alone are estimated to cost the global economy $1 trillion each year[2] in lost productivity, underscoring the critical need for scalable, efficient tools like inMyVoice that can improve patient outcomes and streamline clinical workflows.

INNOVATION

inMyVoice transforms symptom tracking by asking patients to record a quick, one-minute voice diary each day with simple prompts. Advanced AI then transcribes these diaries, identifies important themes, organizes the information, and spots subtle details that may be missed in typical interviews. These AI-generated summaries provide clinicians with a clear and highly organized snapshot of patient experiences before any appointment, allowing them to focus more on therapeutic care and less on basic data gathering. In studies involving 80 participants with clinical conditions over 30- or 60-day periods, the app's clinical summaries were validated by trained raters as highly accurate, informative, and helpful—substantially outperforming summaries generated by humans. The app is fully functional, scalable, and adaptable for broad use, making it a game-changer in real-world symptom tracking and clinical decision support across psychiatry, primary care, and telemedicine.

ADDITIONAL INFORMATION

REFERENCES

1. World Health Organization. (2022). "Mental Health." https://www.who.int/news-room/fact-sheets/detail/mental-health

2. World Health Organization. (2025). "Over a billion people living with mental health conditions; services require urgent scale-up."

https://www.who.int/news/item/02-09-2025-over-a-billion-people-living-with-mental-health-conditions-services-require-urgent-scale-up

Explore other available products test at University of Michigan