

MOBILE TECHNOLOGIES IN MENTAL HEALTH: POTENTIAL AND LIMITS OF DIGITAL SCREENING**TECNOLOGÍAS MÓVILES EN LA SALUD MENTAL: POTENCIAL Y LÍMITES DEL RASTREO DIGITAL****TECNOLOGIAS MÓVEIS NA SAÚDE MENTAL: POTENCIAL E LIMITES DO RASTREIO DIGITAL**¹**Daniel de Macêdo Rocha**²**Breno da Silva Oliveira**³**Iara Barbosa Ramos**⁴**Muriel Fernanda de Lima**¹Universidade Federal de Mato Grosso do Sul, Coxim, Brazil. ORCID: <https://orcid.org/0000-0003-1709-2143>²Universidade Federal de Mato Grosso do Sul, Coxim, Brazil. ORCID: <https://orcid.org/0009-0008-0950-2951>³Universidade Federal de Mato Grosso do Sul, Coxim, Brazil. ORCID: <https://orcid.org/0000-0003-1608-4336>⁴Universidade Federal de Mato Grosso do Sul, Coxim, Brazil. ORCID: <https://orcid.org/0000-0001-9812-659X>**Corresponding Author****Daniel de Macêdo Rocha**General Mendes de Moraes, 369, Jardim Novo Mato Grosso, Coxim, Mato Grosso do Sul, Brazil. CEP: 7940000, contact: +55 (16) 99256-0204, E-mail: daniel.macedo@ufms.br.**Submission:** 14-10-2025**Approval:** 15-10-2025

Technological strategies for the prevention and management of mental health events are widely referenced to identify vulnerable groups, support clinical reasoning, guide decision-making, and ensure appropriate referrals. In this context, mobile technologies stand out for their easy access, wide availability, data storage and sharing capabilities, as well as their potential integration into public health policies for the digital screening of risk conditions and behaviors in the Brazilian population⁽¹⁾.

Mobile health technologies are associated with improvements in communication indicators, risk management, and the enhancement of professional knowledge, skills, and competencies, resulting in greater system efficiency in terms of performance, equity, safety, and effectiveness. These tools facilitate the digital screening of psychosocial conditions by promoting remote monitoring of individual, psychological, social, and environmental markers that contribute to increased risk. Furthermore, their application in different contexts, such as Primary Health Care (PHC) and home care services, is promising for the implementation of mental health public policies in Brazil⁽²⁾.

Primary care and home care devices play a crucial role in managing risk factors and implementing timely interventions for individuals who do not spontaneously access health services due to geographic, social, clinical, or psychological barriers. Social isolation, symptoms of anxiety and depression, and the stigma experienced by patients and families reduce the pursuit of mental



health care, limit access to formal health services for adequate assessment and timely intervention, and substantially increase the risk of severe events⁽²⁻³⁾.

Thus, providing mobile, interactive, validated, and accessible tools that enable screening and expand the reach of preventive actions is essential to improving the quality of care across different points of the health network. Moreover, expanding the scope of screening actions beyond the physical limits of health services is a strategic move for the prevention and control of psychosocial risks^(1,4).

Despite the growth in the development of mobile technologies aimed at managing mental health-related conditions, sociotechnical, ethical, and institutional gaps must be systematically considered, as they may pose challenges for digital screening and limit the provision of rapid and effective responses in mental health indicators within the Brazilian population⁽⁵⁾.

The heterogeneity of technological infrastructure in health services and the reliance on internet access and mobile device availability can reduce the performance of these technologies in the public system. Sociotechnical barriers highlight high rates of digital illiteracy among health professionals, evidenced by difficulties in handling mobile devices and resistance to changes in work processes. Additional concerns involve ethical and legal aspects of data storage, privacy, and security, especially when dealing with sensitive conditions such as mental illness in vulnerable populations. It is important to emphasize that mental health events are not static and can be influenced by multiple factors. Even with technological advances, mobile resources for digital screening do not replace anamnesis or specialized clinical assessment⁽⁶⁾.

Although these barriers are evident, offering mobile technologies adapted to population demands and validated for Brazil's diverse regional contexts demonstrates their relevance, accessibility, and innovation in tracking vulnerability markers and supporting the integration of such tools into public mental health policies. Recognizing the existing gaps within this field enables future developments to ensure usability, transparency, and reproducibility of digital interventions, as well as their effectiveness in referral success rates and the prevention of critical episodes.

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