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Participatory Requirements Analysis for a Data-Driven Depression Aftercare App – Insights from the INSITU Project and Implications for an Iterative Application Design

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Introduction

The post-discharge period following inpatient treatment for depression is characterised by high relapse risk and long waiting times for outpatient specialist care. The BMFTR-funded INSITU project is developing a data-driven, multimodal system for individualised therapy management, using a standard tablet to capture audio, video, and touch-based inputs. A voice dialogue system (voicebot with optional avatar) guides patients through daily self-assessments; clinicians access longitudinal data via a web-based dashboard. This contribution presents findings of a participatory requirements analysis invoking patients and healthcare professionals.

Methods

As a first step of the user-centred development process, a participatory requirements analysis was conducted with two target groups: patients (N = 15) and healthcare professionals (N = 29). Separate anonymous online questionnaires (SoSci Survey) combined closed-ended items and open free-text fields, administered at Bezirksklinikum Augsburg, University of Augsburg, Germany. The study was classified as non-advisory by the Ethics Committee of LMU Munich (Project No. 25-0664-KB).

Results

Both groups prioritised ease of use, mood and activity tracking, data privacy, and crisis management features. Patients additionally emphasised concrete support during deterioration (personal safety plans: 73.3%), daily routine structuring (80%), and mindfulness/self-care content (93.3%). Healthcare professionals highlighted warning systems for crisis symptoms (69%), psychoeducation (mentioned 7 times in open responses), standardised questionnaires (PHQ-9), and diary functions. The avatar concept was rejected by approximately 80% of patients (“creepy”), indicating that it must be fully optional and configurable. Gamification was endorsed by 60% of patients when kept lightweight. A majority of professionals (62.1%) rated reimbursability as an essential prerequisite for adoption.

Conclusion

The findings inform INSITU system design and may inform other similar applications. They directly guide the development of the MVP. Initial results from a planned usability and acceptability evaluation of the MVP in July 2026 will be presented at BMT 2026.