Integration of digital mental health intervention at community level in Pakistan (WellPak)

Project Report

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LMIC Partner: Fazaia Medical College, Pakistan

Countries: Pakistan & Germany

1. Background of the project

Mental health constitutes a significant global disease burden, with depression affecting over 300 million people[1]. Low- and Middle-Income Countries (LMICs) face a 90% treatment gap due to a shortage of specialists[2]. Integrating digital technologies into mental health interventions led by non-specialists shows promise in bridging treatment gaps and improving service utilization[3].
WellPak Booster aimed to address these challenges in Pakistan with the objective to digitally adapt the WHO evidence based transdiagnostic intervention "Problem Management Plus" (PM+), in Technology Assisted Problem Management Plus (TA-PM+) and tailor the adaptation of a digital platform to integrated into the routine work of Lay Health Workers (LHWs) and assists in the delivery, monitoring, and supervision of PM+ sessions given to individuals with common mental conditions.

2. Project Summary

Technology-Assisted Problem Management Plus (TA-PM+) developed during WellPak project is a digital platform for LHWs to deliver and monitor, PM+ sessions for common mental conditions. TA-PM+ includes an app for LHWs and a web-based backend for supervisors. The app employs video clips and Avatar characters to guide content delivery and reduce reliance on therapists' memory. It features a personal dashboard for data management, a clinical monitoring questionnaire and a web-based server for supervision, ensuring intervention fidelity.

The adaptation of (TA-PM+) followed a robust three-stage co-production method, involving a stakeholder consultation, collaborative design, and usability testing. Through co-production interviews and workshops, the research team, software designers, and stakeholders collaborated in the development of TA-PM+. Co-design workshops were utilized to brainstorm solutions, and action research cycles were employed until the final TA-PM+ intervention was developed. Usability testing of TA-PM+ involved two iterations with six Lay Health Workers (LHWs). Following structured training the initial evaluation in a controlled laboratory environment through the mHealth Usability Questionnaire demonstrated a usability score of 5.62 (Possible Range 0-7), thus

indicating high usability of the tool. After feedback implementation, the subsequent field evaluation, involving individuals diagnosed with depression, demonstrated improved usability further with a mean score of 5.96. The TA-PM+ session client satisfaction score, based on the mHealth Satisfaction Questionnaire, was 40 (Possible Range 0-46), indicating that patients expressed high contentment with the sessions. Positive feedback highlighted the helpfulness of videos, engagement with avatars, and the effectiveness of setting personal goals for lifestyle habits.

3. Lessons learned for the wider global health community

Adapting or developing digital interventions requires engagement with local stakeholders and consideration of available resources. While digital interventions offer accessibility, effectiveness, and cost-efficiency, success depends on alignment with contextual factors. Neglecting unique settings or imposing interventions from high-income to low-income areas may worsen existing divides. A thoughtful, context-sensitive approach is vital for the successful deployment and impact of digital interventions, fostering inclusivity and bridging healthcare and digital gaps.

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