Scaling Up Science-Based Substance Use and Mental Health Interventions in Primary Care Settings in Latin America

Torrey WC, Cepeda M, Castro S, Bartels SM, Cubillos L, Obando FS, Camblor PM, Uribe-Restrepo JM, Williams M, Gomez-Restrepo C, Marsch LA. Implementing technology-supported care for depression and alcohol use disorder in primary care in Colombia: preliminary findings. Psychiatr Serv. 2020;71(7):678-83. Epub 2020/03/11. doi: 10.1176/appi.ps.201900457. PubMed PMID: 32151216; PMCID: PMC7332379.

Goal: Integrate and evaluate implementation of a suite of digital tools for alcohol use and depression as part of service menu in primary care settings in Latin America.

- Kiosks in waiting room for patient self-report screening of alcohol use (Alcohol Use Disorders Identification Test: AUDIT) and depression (Patient Health Questionnaire)
- Tablet-based provider decision support tool based on Colombia clinical guidelines for management of depression and alcohol use disorder
- Mobile app for science-based patient self-treatment of alcohol and depression

Implementation Process:
Planning

- Recruited partner sites with high motivation to change routine flow of patient care and openness to digital service approaches
- Conducted focus groups and interviews with end-user stakeholders (health professionals, administrators, patients) to identify individual and setting needs and understand current workflow
- Mapped incorporation of digital services in workflow process
- Conducted online surveys of representative end-user patients to assess patient mobile technology access, use, and experiences of health care
- Developed and user-tested kiosk and provider decision support tools, informed by formative work with end-user stakeholders
- Developed data management system for tracking digital screening and decision support tool clinical and usage data
- Developed training materials

Engagement

- Established Industry Advisory Board (payors, patient organization representatives, local and regional Ministry officials, providers) to inform implementation plan
    - Conducted biannual meetings to inform implementation plan and process
- Established learning community of end-user stakeholders
    - Conducted quarterly meetings to promote primary care stakeholder sharing of implementation execution, barriers, facilitators, useful strategies, lessons learned
- Built capacity
    - Technology infrastructure – internet modem distribution, wifi capability, tablet hardware and software
    - Conducted provider trainings – depression and alcohol use screening and treatment, technology use, case studies of screening and treatment course
    - Grant writing workshops

- Digital educational tools, e.g. educational videos about depression and alcohol use disorder displayed on video screens in clinic waiting rooms

Execution of implementation plan

- Installation of kiosks
- Conducted day-long provider training on use of kiosk, decision support tool, and use of alcohol and depression treatment mobile app
- Phased rollout starting in Year 1 with 1 site, 50 patient participants, incorporate feedback to inform adaptations in process flow
  - Expanding implementation based on stepped-wedge design, across 5 additional rural and urban sites (~2000 participants total)

Evaluation and reflection

- Implementation Context and Outcomes**:**
  - Behavioral Health Integration in Medical Care (BHIMC)
    - Assesses organizational capacity of sites to address behavioral health conditions; evaluates policy, clinical practice and workforce dimensions of integration using a mixed methods approach, i.e. document review, workflow observation, brief stakeholder interviews.
  - The Integrated Measure of Implementation Context and Outcomes in Low- and Middle-Income Countries (IMICO)
    - Adapted from the Consolidated Framework for Implementation Research, Reach, Effectiveness, Adoption, Implementation and Maintenance Model, and Exploration, PIS framework
    - Implementation outcomes: acceptability, adoption, appropriateness, feasibility, reach); implementation context (organizational climate, organization leadership)
  - Time-driven Activity-Based Costing (TDABC)
    - Detailed process map to illustrate every administrative and clinical process activated during the treatment of depression and alcohol use disorders over a complete care cycle
    - Used to determine the costs of the specific human, equipment, and facility resources used for delivering mental health care to patients as part of the model of care.
  - Program Sustainability Tool (PSAT) to assess a program's capacity for sustainability
  - Qualitative stakeholder interviews (patient, providers, and administrators) guided by CFIR domain construct to evaluate stakeholder acceptance of the digital services and success of the implementation.

Year 1 Pilot Results

2656 patients screened for depression and unhealthy alcohol use

- Baseline of 0% to 17% and 2% met diagnostic criteria, respectively

Facilitators and barriers

- Facilitators
  - Provider buy-in
  - Kiosk facilitates quick diagnosis
  - Decision support tool provides primary care providers with skills and knowledge to address depression and alcohol use disorder
  - High smartphone penetration

- Barriers
  - Addressing alcohol use disorder
    - Stigma
    - Perception that alcohol use disorder not within treatment scope
    - Lack of time, training, and resources

        - Belief that patients will not take advice to change drinking behavior
        - Fear of offending patients by discussing alcohol
    - Integration of technology into primary care
        - Provider and patient digital literacy
        - Clinical setting technical capacity, particularly in rural regions
        - Confidentiality concerns
        - Sustainability financing

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