

Lay health supporters aided by a mobile phone messaging system to improve care of villagers with schizophrenia in Liuyang, China: a randomized controlled trial

Introduction: Families with schizophrenia, a severe and disabling mental disorder, in disadvantaged communities often face significant health and social challenges complicated by lack of access to mental health services and severe shortage of mental health workers. To address those challenges, we developed a community-based program under the acronym "LEAN", which has four parts: (1) Lay health supporters (LHSs), mostly family members who will help supervise patient medication, monitor relapse and side effects, and facilitate access to care, (2) an E-platform to support two-way mobile text and voice messaging to remind patients to take medication; and alert LHSs when patients are non-adherent, (3) an Award system to motivate patients and strengthen LHS support, and (4) iNtegration of the efforts of patients and LHSs with those of village doctors, township mental health administrators and psychiatrists via the e-platform.

Methods: A random sample of 279 villagers with schizophrenia were successfully recruited from 9 towns of Liuyang municipality in China, which were further randomized into a control group and a treatment group which receives LEAN.

Major Findings: After 5 months of test-run and 3 months into official implementation of LEAN, we found that all responding participants other than 3 patients were overall satisfied with the SMS message; and 93.8% of the LHS and 89.87% of the patients were willing to continue to receive the SMS message. At the end of six-month official project implementation, the ratio of treatment-adherent patient according to pharmacy dispensing records is 54.2% in the control group versus 62.5% in the intervention group. The program impact on a range of outcomes including patient functions as measured by WHODAS, symptom reduction by CGI and adherence by pill-counts at patient homes is currently under data cleaning and analysis.

Conclusion: The program seems to have improved patient adherence (subject to our final analysis with pill-counts data). The program will provide evidence on whether simply technology and lay people can improve health outcomes of people with severe mental disorders living in resource-limited communities.

Contact Information: Dong (Roman) Xu, Sun Yat-sen University Global Health Institute & University of Washington. xudong5@mail.sysu.edu.cn; Wenjie Gong, Central South University. gongwenjie@csu.edu.cn For project protocol: <http://bmjopen.bmj.com/content/6/1/e010120.full>

