The effect of smartphone-based monitoring on illness activity in bipolar disorder: the MONARCA II randomized controlled single-blinded trial

Recently, the MONARCA I randomized controlled trial (RCT) was the first to investigate the effect of smartphone-based monitoring in bipolar disorder (BD). Findings suggested that smartphone-based monitoring sustained depressive but reduced manic symptoms. The present RCT investigated the effect of a new smartphone-based system on the severity of depressive and manic symptoms in BD. Randomized controlled single-blind parallel-group trial. Patients with BD, previously treated at The Copenhagen Clinic for Affective Disorder, Denmark and currently treated at community psychiatric centres, private psychiatrists or GPs were randomized to the use of a smartphone-based system or to standard treatment for 9 months. Primary outcomes: differences in depressive and manic symptoms between the groups. A total of 129 patients with BD (ICD-10) were included. Intention-to-treat analyses showed no statistically significant effect of smartphone-based monitoring on depressive (B = 0.61, 95% CI -0.77 to 2.00, p = 0.38) and manic (B = -0.25, 95% CI -1.1 to 0.59, p = 0.56) symptoms. The intervention group reported higher quality of life and lower perceived stress compared with the control group. In sub-analyses, the intervention group had higher risk of depressive episodes, but lower risk of manic episodes compared with the control group. There was no effect of smartphone-based monitoring. In patient-reported outcomes, patients in the intervention group reported improved quality of life and reduced perceived stress. Patients in the intervention group had higher risk of depressive episodes and reduced risk of manic episodes. Despite the widespread use and excitement of electronic monitoring, few studies have investigated possible effects. Further studies are needed.

General information
Publication status: Accepted/In press
Organisations: Department of Applied Mathematics and Computer Science, Embedded Systems Engineering, University of Copenhagen, IT University of Copenhagen
Corresponding author: Faurholt-Jepsen, M.
Contributors: Faurholt-Jepsen, M., Frost, M., Christensen, E. M., Bardram, J. E., Vinberg, M., Kessing, L. V.
Pages: 1-11
Publication date: 2019
Peer-reviewed: Yes

Publication information
Journal: Psychological Medicine
ISSN (Print): 0033-2917
Ratings:
BFI (2019): BFI-level 2
Web of Science (2019): Indexed yes
Original language: English
Keywords: Bipolar disorder, MONARCA II, The Monsenso system, Depressive and manic symptoms, Illness activity, Randomized controlled trial, Smartphone
DOIs:
10.1017/S0033291719000710
Source: FindIt
Source ID: 2445584514
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review