

EDITORIAL:

**Preventive Aspects of Smartphone-Based Apps in Bipolar disorder:
Empowering Early Intervention and Wellness**

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Bipolar disorder is a recurrent psychiatric disorder in which the patient has sudden shift in his mood ranging from hypomania, mania to depression. The acute onset and the unpredictability of this disorder demands timely intervention to prevent relapses. The traditional approaches include pharmacotherapy and psychotherapy. However, smartphone based apps offer a promising shift towards preventive strategies that will help us detect mood changes, sleep cycle, treatment adherence and overall improved well-being of patients suffering from bipolar disorder. Timely identification of early warning sign such as changes in sleep, energy level, or mood is essential to prevent full blown episodes.⁴

These early warning signs might not be visible to the patient or the caregiver at an early stage. Smartphone based apps come to this rescue as they provide real time, passive and active monitoring of the patients.⁶

With the provision of fast Internet, smartphone apps usage has surged in the world as well as in India. Worldwide, there are many mood tracking apps that allow users to log their mood daily and give insight into emotional pattern over time. If there is any downward trend noticed, it will indicate onset of depression, and if there is any elevated activity, it may signal towards onset of mania. Some apps monitor the sleep, helping users to identify disruptions that could signal an approaching episode. There are some other apps that monitor activity levels or speech patterns. AI based apps can identify subtle changes, predictive of mania or depressive phases prompting early intervention.^{4,1}

The apps are not just useful for tracking, but are also use for reminding patients for medication by using alert systems. Some apps have gone one step ahead and they even provide therapy support in form of mindfulness, meditation, stress management techniques that reduces the chance of relapse in bipolar disorder.⁵

One of the most promising aspects of smartphone based apps is their ability to generate personalized insight. These personalized feedbacks can prompt individual and their healthcare providers to take preventive actions such as adjusting medications and or lifestyle routines before there are full blown symptoms of bipolar disorder. This will not only decrease the number of relapses but will also decrease the number of hospitalization and will improve overall quality of life of the patient.⁴

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Behind the glamour of smartphone based apps, there come several shortcomings that need to be addressed in Indian context. India being a resource poor country, not every patient or their caregivers have access to smartphone. Furthermore, the smartphone literacy is also quite low in. Vast number of local and regional languages spoken in India also limits the acceptability of the smartphone apps which are generally designed for English speaking people. Even if we surpass these limitations, data privacy and security remains most pressing and concerning ethical issues that will guide the integration of these apps into traditional management of bipolar disorders. Furthermore the apps should finally be clinically validated for the psychiatrists to recommend them to their patients.²

In conclusion, smartphone based app represent a new dimension in intervention and management of bipolar disorder by enabling early detection, promoting adherence to treatment and increasing overall wellness of the psychiatric patients. While challenges remain, however thoughtful integration of these apps into our traditional pharmacotherapy can transform the landscape of bipolar management and decrease hospital admissions. It will also help in bridging the crunching gap between mental health professionals and the patients. The future of AI in health care appears to have great possibilities. Putting aside irrational fears of being replaced by computers one day, AI may be highly transformative, leading to vast improvements in patient care.³

References

1. Ray A, Bhardwaj A, Malik YK, Singh S, Gupta R. Artificial intelligence and Psychiatry: An overview. Asian journal of psychiatry. 2022 Apr 1; 70: 103021.
2. Sagar R, Dandona R, Gururaj G, Dhaliwal RS, Singh A, Ferrari A, Dua T, Ganguli A, Varghese M, Chakma JK, Kumar GA. The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990–2017. The Lancet Psychiatry. 2020 Feb 1;7(2):148-61.
3. Kalandarian H, Nasrallah HA. Artificial Intelligence in Psychiatry. Current Psychiatry. 2019;18(8):33-38.
4. Goulding EH, Dopke CA, Rossom R, Jonathan G, Mohr D, Kwasny MJ. Effects of a smartphone-based self-management intervention for individuals with bipolar disorder on relapse, symptom burden, and quality of life: a randomized clinical trial. JAMA Psychiatry. 2023; 80 (2):109-118. doi:10.1001/jamapsychiatry.2022.4304.
5. Torous JB, Chan SR, Yellowlees PM, Boland R. To use or not? Evaluating ASPECTS of smartphone apps and mobile technology for clinical care in psychiatry. J Clin Psychiatry. 2016;77 (6).
6. Sinha Deb K, Tuli A, Sood M, Chadda R, Verma R, Kumar S, et al. Is India ready for mental health apps (MHApps)? A quantitative-qualitative exploration of caregivers' perspective on smartphone-based solutions for managing severe mental illnesses in low resource settings. PLoS One. 2018; 13 (9) doi:10.1371/ journal.pone.0203353.

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