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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Baseline** |  |  |  |  |  |  |  |  |  |  | **Visit 1** |  |  |  |  |  |  |  |  |  |  | **Visit 2** |  | **Visit 26** |
|  | YMRS |  |  |  |  |  |  |  |  |  |  | YMRS |  |  |  |  |  |  |  |  |  |  | YMRS |  | YMRS |
|  | BRMRS |  |  |  |  |  |  |  |  |  |  | BRMRS |  |  |  |  |  |  |  |  |  |  | BRMRS |  | BRMRS |
|  | MADRS |  |  |  |  |  |  |  |  |  |  | MADRS |  |  |  |  |  |  |  |  |  |  | MADRS |  | MADRS |
|  | DSM-5 |  |  |  |  |  |  |  |  |  |  | DSM-5 |  |  |  |  |  |  |  |  |  |  | DSM-5 | … | DSM-5 |
| Smartphone usage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Actigraphy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Day | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | … | 365 |

Supplementary Figure 1. Overview of the BipoSense study design. In-person visits assessed the following instruments: Young Mania Rating Scale (YMRS), Bech-Rafaelsen Mania Rating Scale (BRMRS), Montgomery Asberg Depression Rating Scale (MADRS), and the SCID-I section A for affective episodes according to DSM-5. The former three questionnaires referring to the previous three days, while the SCID-I assessed the mood in the past 14 days. Ratings were performed bi-weekly by a trained clinical psychologist. Every other visit could be conducted over the phone, if preferred by the patient. Over the study period of one year, a total of 26 visits took place. After the baseline assessment, the study app on the patient‘s smartphones continually recorded certain parameters of the smartphone usage and actigraphy (frequency and length of incoming and outgoing phone calls and text messages, number of different call and text contacts, frequency and duration of times the display was on/off, rates of transmitted and received data, travel distances in kilometers, frequency and duration of different activity classes and the velocity of movement and number of steps). Moreover, the app prompted the end-of-day diary questions, which were to be filled out between 8 pm and midnight each evening.