

Table 2. Characteristics of studies that measured the actual acceptability of online and mobile phone-delivered interventions for SMI.

| Project, location, diagnosis, and intervention | Author(s) & year | Study design | Recruitment setting | Intervention duration and module/ session numbers | Sample size (n) | Mean (SD) age, years | Sex (% male) |
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| HORYZONS Australia Clinician confirmed: FEP or mood disorder with psychotic features Online interactive psychosocial interventions & moderated social networking. | Alvarez-Jimenez et al [47] 2013 | Uncontrolled pilot study | Early Psychosis Prevention and Intervention Centre (EPPIC, Melbourne) | 4 weeks 7 modules | 20 | 20.3 (2.7) | 50 |
| | Gleeson et al [48] 2013 | Qualitative analysis of uncontrolled pilot study | Early Psychosis Prevention and Intervention Centre (EPPIC, Melbourne) | 4 weeks 7 modules | 20 | 20.3 (2.7) | 50 |
| | Lederman, Wadley, Gleeson, Bendall, & Alvarez-Jimenez [49] 2014 | Qualitative analysis of uncontrolled pilot study | Early Psychosis Prevention and Intervention Centre (EPPIC, Melbourne) | 4 weeks 7 modules | 20 | 20.3 (2.7) | 50 |
| Mental.Net Finland Clinician confirmed: Schizophrenia spectrum psychosis Online nurse- | Kuosmanen et al [50] 2009 | Randomized Controlled Trial (RCT): 3 conditions: IT-based education (IT); conventional education (CE); standard care (SC) | 9 acute inpatient wards in 2 psychiatric hospitals | 'About' a month 5 sessions | Total: 311 IT: 100 CE: 106 SC: 105 | IT: 37.3 (12.4) CE: 39.1 (12.6) SC: 37.9 (12.8) | IT: 61 CE: 61 SC 55 |

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| supported patient education | | | | | | | |
| | Hätönen, Suhonen, Warro, Pitkänen, & Välimäki [51] 2010 | Qualitative analysis of RCT: 3 conditions: IT-based education; conventional education; standard care | 9 acute inpatient wards in 2 psychiatric hospitals | ‘About’ a month 5 sessions | Total: 16 IT: 6 CE: 6 SC: 4 | 35.7 (11.92) | 68.75 |
| | Kuosmanen, Jakobsson, Hyttinen, Koivunen, & Välimäki ^b [52] 2010 | Uncontrolled pilot study | 2 local service user mental health associations | Not applicable (NA) (usability testing) | 21 | Not reported (NR) | 48 |
| | Pitkänen et al [53] 2012 | Further analysis of RCT: 3 conditions: IT-based education; conventional education; standard care | 9 acute inpatient wards in 2 psychiatric hospitals | ‘About’ a month 5 sessions | Total: 311 IT: 100 CE: 106 SC: 105 | IT: 37.3 (12.4) CE: 39.1 (12.6) SC 37.9 (12.8) | IT: 61 CE: 61 SC: 51 |
| | Anttila, Välimäki, Hätönen, Luukkaala, Kaila [54] 2012 | Further analysis of RCT: 3 conditions: IT-based education; conventional education; | 9 acute inpatient wards in 2 psychiatric hospitals | ‘About’ a month 6 sessions | 100 | 37.2 (12.2) | 62.4 |

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| | | standard care (Reports on the IT education group) | | | | | |
| | Laine, Anttila, & Välimäki ^b [55] 2015 | Phase 1: Qualitative needs assessment; Phase 2: Preliminary evaluation feedback | Psychiatric rehabilitation unit for adolescents in 1 hospital | N/A (felt needs and initial thoughts) | Phase 1: 6 Phase 2: 2 | NR | 50 |
| Beating Bipolar UK | Barnes et al ^{a,b} [56] 2011 | Focus groups | Participants from another part of the study | N/A (focus groups) | 8 | NR | NR |
| Clinician confirmed: Bipolar disorder Online interactive psychoeducation plus moderated discussion forum | Smith et al [57] 2011 | RCT: 2 conditions: Beating Bipolar plus TAU; TAU only | Primary care practices & community mental health teams. Case files from the Mental Health Research Network Cymru (Wales). Members of the Manic Depression Fellowship in Wales through local group coordinators | 4 months 8 modules | Total: 50 Beating Bipolar: 24 TAU: 26 | Beating Bipolar: 42.7 (11.4) TAU: 44.7 (9.9) | Beating Bipolar: 45.8 TAU: 30.8 |
| | Poole, Simpson, & Smith [58] | Qualitative analysis of RCT: | Primary care practices & community | 4 months 8 modules | Total: 20 | NR | High users: 57.14 |

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| | 2012 | 2 conditions: Beating Bipolar plus TAU; TAU only | mental health teams. Case files from the Mental Health Research Network Cymru (Wales). Members of the Manic Depression Fellowship in Wales through local group coordinators | | High users: 14 Low users: 6 | | Low users: 83.33 |
| Health Steps for Bipolar Disorder Australia Confirmed by clinical questionnaire: Bipolar disorder Online psychoeducation plus CBT & mood monitoring | Barnes, Hadzi- Pavlovic, Wilhelm, & Mitchell [59] 2015 | RCT: 2 conditions: Health Steps for Bipolar Disorder; Attention control (AC) | Online recruitment | 12 months 20 sessions | Total: 233 Health Steps: 113 AC: 120 | Health Steps: 40.9 AC: 37.6 | Health Steps: 26.5 AC: 29.2 |
| FOCUS US Clinician confirmed: Schizophrenia or schizoaffective disorder Mobile (smartphone) assessment prompts & various evidence- based interventions to target psychotic | Ben-Zeev et al ^b [40] 2013 | Pilot usability testing | NR | N/A (usability testing) | 12 | 45 | 67 |
| | Ben-Zeev et al [60] 2014 | Pre-post single- group field trial | Community- based treatment programs | 1 month 3 prompts daily | 33 | 45.9 (8.78) | 61 |

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| symptoms | | | | | | | |
| Personal control in Rehabilitation (PCR) the Netherlands Clinician confirmed: FEP or schizophrenia Online patient information, self-management, psychoeducation, and digital contact with other patients and caregivers | de Leeuw, van Splunteren, & Boerema ^b [61] 2012 | Uncontrolled pilot study | NR | NR | Main study: 60 Subsequent focus group: 19 | NR | Main study: NR Focus group: 73.68 |
| PRISM US Clinician confirmed: Bipolar disorder In-person psychoeducation followed by mobile symptom monitoring plus coping strategies feedback | Depp et al [62] 2010 | Uncontrolled pilot study | NR | 2 weeks 4 assessment prompts daily | 10 | 41 (13.7) | NR |
| | Depp et al [63] 2015 | RCT: 2 conditions: PRISM; paper-and-pencil mood charting | Advertisements & posters online & in community residential & drop-in settings, self-help support groups, & outpatient psychiatric clinics | 10 weeks 2 survey prompts daily | PRISM: 41 Paper-and-pencil: 41 | PRISM: 46.9 (11.8) Paper-and-pencil: 48.1 (12.9) | PRISM: 46.3 Paper-and-pencil: 36.6 |
| MATS US Clinician | Depp et al [62] 2010 | Uncontrolled pilot study | NR | 12 weeks 3 assessment | 8 | NR | NR |

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| confirmed: Schizophrenia or schizoaffective disorder Mobile symptom monitoring plus CBT techniques | | | | prompts daily | | | |
| | Granholm, Ben- Zeev, Link, Bradshaw, & Holden [64] 2012 | Uncontrolled pilot study | Outpatient residential & community settings in the Veterans Affairs San Diego Healthcare System & the San Diego County Mental Health System | 12 weeks 12 messages sent each day | Total: 55 Completers: 42 Non completers 13 | Completers: 48.7 (9.1) Noncompleters: 48.9 (7.9) | Completers: 69 Noncompleters: NR |
| MHEN Canada Clinician confirmed: Personality disorder or psychotic disorder Mobile and online personal health records, mood monitoring, prompts and reminders, health journals, and secure messaging with mental health professionals | Forchuk, Donelle, Ethridge, & Warner ^a [65], L Warner, MSc, written communication, June 2015; 2015 | Secondary analysis of mixed-methods delayed- implementation study | Health care providers from 4 community mental health agencies | 18 months | Total: 258 Psychotic disorder: 234 Personality disorder: 24 | Overall sample (incl. other diagnoses): 37.6 (13.8) | Overall sample (incl. other diagnoses): 60.7 |
| Coping with Voices US | Gottlieb, Romeo, Penn, Mueser, & | Open pilot study | 4 community mental health clinics | 10 sessions | 21 | 40.1 (13.63) | 62 |

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| Clinician confirmed: Psychotic disorder Online logs, exercises, and games based on CBT principles & coping techniques | Chiko [66] 2013 | | | | | | |
| Sweden Clinician confirmed: Bipolar disorder Type II Online CBT with psychoeducation, emotion regulation, sleep quality, cognitive restructuring, long-term goals, & relapse prevention | Holländare, Eriksson, Lövgren, Humble, & Boersma [67] 2015 | Uncontrolled pilot study | Letters sent to service users on a psychiatry database held by Region örebro County | 6 weeks 6 modules | 4 | 48.75 (14.29) | 25 |
| DHFS US Clinician confirmed: Schizophrenia or bipolar disorder Digital sensor to confirm tablet ingestion, wearable sensor, mobile self-reported information, & personalized weekly report | Kane et al [68] 2013 | Pilot observation study | Referrals & advertisements at the Zucker Hillside Hospital & Massachusetts Hospital | 4 weeks | 28 Schizophrenia group: 16 Bipolar disorder group: 12 | 42.8 (12.7) | 64.3 |

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| Czech Republic Clinician confirmed: Bipolar disorder Online psychoeducation | Latalova et al [69] 2014 | Uncontrolled pilot study | Service users hospitalized in a psychiatric department or attending a day hospital program | 12 modules | 12 | NR | NR |
| MoodSwings (MS) & MoodSwings Plus (MS-Plus) Australia Confirmed through clinical interview: Bipolar disorder Online psychoeducation, discussion forums (MS), and CBT (MS-Plus) | Lauder et al ^b [70] 2013 | Uncontrolled pilot study | Referrals from service providers & online | 5 core modules; 3 booster modules | 12 | 41.92 (11.16) | 16.7 |
| | Lauder et al [71] 2015 | RCT: 2 conditions: MS; MS-Plus | Clinician referral, online, & advertising via conferences & consumer & professional forums | 12 months 5 core modules; 3 booster modules | Total: 130 MS: 59 MS-Plus: 71 | MS: 41.35 (9.85) MS-Plus: 39.87 (11.26) | MS: 24 MS-Plus: 27 |
| Unites States Self-reported: Bipolar disorder Online social rhythm therapy, mood charting, and activity planning | Lieberman et al [72] 2011 | Uncontrolled pilot study | Online advertisements | 90 days | 64 | 43 (12.5) | 12.7 |
| FIMM US Clinician confirmed: Bipolar disorder In-person psychoeducation followed by online or mobile mood monitoring | Miklowitz et al [73] 2012 | 2 uncontrolled pilot studies | Outpatient mood disorders program of the Warneford Hospital & Oxford Health Foundation NHS Trust | 120 days Weekly ratings | Total: 19 Pilot 1: 14 Pilot 2: 5 | 37.2 (11.7) | 31.6 |

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| and graphical reports | | | | | | | |
| <p>ORBIT Australia Self-reported: Late stage bipolar disorder</p> <p>Online strategies and exercises from acceptance and commitment therapy and mindfulness-based cognitive therapy</p> | <p>Murray et al [74]</p> <p>2015</p> | Uncontrolled pilot study | CREST.BD (international research & knowledge exchange network) website, Facebook, & Twitter pages | <p>3 weeks</p> <p>4 modules</p> | 26 | 46.6 (12.9) | 25 (note: sex not obtained for 10 participants due to technical error) |
| <p>Bipolar Education Program (BEP) Australia Clinician confirmed: Bipolar disorder Online psychoeducation, mood charts, and support from 'informed supporters' via email</p> | <p>Nicholas et al [75]</p> <p>2010</p> | <p>Qualitative analysis of RCT:</p> <p>3 conditions: BEP; BEP plus informed supporters (BEP + IS); Attention control (AC)</p> | Black Dog Institute Mood Disorders clinic, the Black Dog Institute website, community mental health organizations, general practitioners & psychiatrists, & the print media | <p>8 weeks</p> <p>8 modules</p> | <p>BEP: 16</p> <p>BEP + IS: 9</p> <p>AC: 14</p> | NR | 44 |
| | <p>Proudfoot et al [76]</p> <p>2012</p> | <p>RCT:</p> <p>3 conditions: BEP; BEP + IS; Attention control (AC)</p> | Black Dog Institute Mood Disorders clinic, the Black Dog Institute website, community mental health | <p>8 weeks</p> <p>8 modules</p> | <p>BEP: 139</p> <p>BEP + IS: 134</p> <p>AC: 134</p> | NR | <p>BEP: 33.1</p> <p>BEP + IS: 26.9</p> <p>Attention control:</p> |

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| | | | organizations, general practitioners & psychiatrists, & the print media | | | | 30.6 |
| The Netherlands Clinician confirmed: Schizophrenia or axis 2 diagnosis with psychotic symptoms In-person psychoeducation plus mobile text message goal prompts | Pijnenborg et al [77] 2010 | Controlled trial: Group 1: A-B-A design (direct intervention - DI); Group 2: A-A-B-A design (waiting list - WL) | Referred by psychologists, psychiatrists, or nursing staff when impaired goal-directed behavior was observed | 7 weeks | 62 DI: 33 WL: 29 | DI: 28.3 (8.0) WL: 25.7 (7.5) | DI: 77 WL: 86 |
| DBT Coach US Clinician confirmed: Borderline personality disorder with comorbid substance use disorder Mobile dialectical behavior therapy | Rizvi, Dimeff, Skutch, Carroll, & Linehan ^b [31] 2011 | Uncontrolled pilot study | 3 outpatient DBT programs in the Pacific Northwest | 10–14 days | 22 | 33.86 (10.27) | 18.2 |
| SOAR US Clinician confirmed: Schizophrenia or schizoaffective disorder In-person | Rotondi et al ^b [78,79] 2005, 2010 | RCT: 2 conditions: Telehealth website; Usual care | Referred by staff at inpatient & outpatient psychiatric rehabilitation centers & psychiatric care units | N/A | Total: 31 Telehealth: 16 Usual care: 15 | 38 (11) | Telehealth: 38 Usual care: 27 |

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| psychoeducation followed by online psychoeducation, therapy groups, and questions via email | Rotondi, Eack, Hanusa, Spring, & Haas [80] 2015 | Usability testing of SOAR compared with other websites | 6 community mental health outpatient psychiatric rehabilitation centers | N/A (usability testing) | 38 | 42.7 (6.62) | 50 |
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| MyRecoveryPlan US Self-reported: Bipolar disorder Online psychoeducation | Simon et al [81] 2010 | Randomized controlled pilot study: 2 conditions: Program plus peer coaching; Program only | Email announcement to local Depression & Bipolar Support Alliance (DBSA) chapters, DBSA website, sponsored advertisement on Google, invitations from participants to peers, & cards in mental health clinics | Program available for 4–9 months (depending on sign-up time) | Total: 118 Coaching group: 64 Program only: 54 | NR | 28 |
| Living with Bipolar (LWB) UK Confirmed by clinical questionnaire: Bipolar disorder Online psychoeducation and CBT | Todd, Jones, & Lobban [82] 2012 | Focus groups | Advertisement presented at self-help groups in the North West of England & Internet discussion forums | N/A (focus groups) | 12 | 42 (8.85) | 58.33 |
| | Todd, Jones, Hart, & Lobban. [83] 2014 | RCT: 2 conditions: LWB plus TAU; Waiting list | Voluntary sector organizations & online advertisements | 6 months | Total: 122 LWB: 61 | LWB: 42 (10.35) WL: 45 (11.97) | LWB: 26 WL: 30 |

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| | | control (WL) | | | WL: 61 | | |
| WEGWEIS the Netherlands Clinician confirmed: Schizophrenia or related psychotic disorder | van der Krieke, Emerencia, Aiello, & Sytema ^b [84] 2012 | Pilot usability testing | 4 mental health care organizations referred by clinicians & other study participants | N/A (usability testing) | 15 | 42 | NR |
| Online routine outcome monitoring and personalized advice | van der Krieke et al ^b [85] 2013 | RCT: 2 conditions: WEGWEIS; TAU | 2 outpatient teams for psychosis: early intervention for psychosis team & a rehabilitation team | 6 weeks | Total: 250 WEGWEIS: 124 TAU: 126 | WEGWEIS: 37 (12.35) TAU: 40 (12.7) | WEGWEIS: 67 TAU: 36 |
| US Clinician confirmed: Bipolar disorder Mobile assessment & semi-individualized automatic feedback | Wenze, Arney, & Miller [86] 2014 | Uncontrolled pilot study | Private psychiatric hospital: inpatient, partial hospital, and outpatient settings | 2 weeks | 14 | 40.86 (12.5) | 28.57 |

^a Study also included participants with different diagnoses; results for these participants are not reported in this review.

^b Study included data from caregivers and/or clinicians; results from these participants are not reported in this review.