**Table S1. Characteristics of included RCTs**

| **-Studies**  **-Country**  **-Study sponsorship** | **Total (n)** | **-Diagnosis**  **-Inclusion criteria** | **-Mean age ± SD (Range, years)** | **-Ethnicity**  **-% Male** | **Baseline severity score**  **(Rating scale)** | | **-Treatment**  **-Outcomes** | **Allocation (n)** | **Intervention period (w)**  **F/U period (w)** | **Psychiatrist or therapist’s/Participant's location in telepsychiatry arm** | **Connection speed (kbit/sec)**  **Display/**  **Webcam equipment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chronic tic disorders (1 study, n=20)** | | | | | | | | | | | |
| (Himle et al., 2012)  US  Tourette Syndrome Association, Inc. | 20 | CTDs including TD  Ages 8-17, who met DSM-IV-TR criteria for TD or CTD and their parents. Additional eligibility criteria included  (1) YGTSS Total Tic Severity Score > 14 for TD or > 10 for CTD;  (2) intellectual functioning in the low-average range or above  (3) no history of behavioral treatment for tics and  (4) no self- reported recent (i.e., in the prior 4 weeks) changes in medication status or planned changes in medication status during the course of the study. | 11.6±2.7  (8-17) | NR  94.4 | 23.7 (YGTSS Total)  33.2 (PTQ) | | Comprehensive Behavioral Intervention for Tics (CBIT)  YGTSS, PTQ, CGI-I | Telepsychiatry (10)  Face-to-Face (10) | 10  16 | University-based Tic Disorder Specialty Clinic /  Local clinic | 128  27-inch Sony High-Definition monitor |
| **Depressive Disorder (N=8, 9 reports n=1,062)** | | | | | | | | | | | |
| (Choi et al., 2014a)  US  Academia | 121 | Depressed symptoms  Age >50; non-Hispanic White, Black, or Hispanic; English speaking; and a score of ≥15 on the 24-item HAMD | 65.21±9.22  (50-89) | Non-Hispanic White, Black, and  Hispanic  22.3 | 24.55  (HAMD 24) | | PST  HAMD | Telepsychiatry (43)  Face-to-Face  (42)  Telephone support call  (36) | 6  24 | NR/  Patient residence | NR  15.6-inch LED display, 720p |
| (Choi et al., 2014b)  US  Academia | 158 | MDD  English-speaking, non-Hispanic White, Black/African American, and Hispanic homebound (as defined in Medicare) adults aged 50 or older, who were served by a large home-delivered meal program and four other aging-service agencies in Central Texas. The inclusion criterion for depression was HAMD ≥ 15 (24-item Hamilton Rating Scale for Depression). | 64.8±9.18  (50 years and older) | Non-Hispanic White,  Black/African, American  Hispanic homebound  21.5 | 23.89  (HAMD 24) | | PST  HAMD/WHODAS II | Telepsychiatry (56)  Face-to-Face  (63)  Telephone support call  (39) | 6  36 | NR/  Patient residence | NR  Laptop, Skype |
| (Egede et al., 2015)/(Egede et al., 2016)  US  Department of Veterans Affairs | 241 | MDD  Veterans (aged ≥58 years) meeting DSM-IV criteria for major depressive disorder | 63.9±5.1  (58 years and older) | White, Black  47.6 | 20.0 (GDS)  26.8 (BDI) | | Behavioural activation therapy  GDS, BDI | Telepsychiatry (120)  Face-to-Face  (121) | 8  52 | NR | NR  4” LCD colour screen (270k pixels), real-time motion display (18 frames per s), KMEA TV500SP |
| (Hungerbuehler et al., 2016)  Brazil  Academia | 107 | Mild depression  Individuals who lived in São Paulo and the surrounding areas, were between the ages of 18 and 55 years, had broadband Internet access at home, and showed symptoms of depression (PHQ-9 ≥ 5) were assessed for eligibility. | 35.64±8.33  (18-55) | Brazilian  29.0 | 7.05  (HAMD)  127.12  (MHI)  28.05  (CSQ)  70.54  (WAI) | | Psychiatric consultations  HAMD  MHI  CSQ  WAI | Telepsychiatry  (53)  Face-to-Face  (54) | 26  48 | University medical center/  Patient residence | NR  NR |
| (Luxton et al., 2016)  US  US Army | 121 | Major or Minor depressive disorder  (a) Met diagnostic criteria for minor depressive disorder or major  depressive disorder, as determined by the SCID-I/P  (b) High-speed Internet access at home (384 kB/s minimum)  (c) If taking psychoactive medications, has maintained a stable regimen for a minimum of 30 days prior to study entry  (d) Informed consent read and signed | NR  (19-65) | White, non-Hispanic;  Black, non-Hispanic;  Asian, non-Hispanic;  Native American, non-Hispanic; Hispanic, any race; Other/unknown  81.8 | 9.67  （BHS）  28.6  （BDI-II） | | Home-based telebehavioral health (HBTBH)  BHS  BDI-II | Telepsychiatry  (62)  Face-to-Face  (59) | 8  12 | NR/  Patient residence | NR  NR |
| (Moreno et al., 2012)  US  Academia | 167 | MDD  An adult of Hispanic ethnicity, willing to be randomly assigned, to participate in the program for 6 months, to be followed up, and to have a diagnosis of major depression disorder based on the MINI.  PHQ-9 screen to ascertain that the patient scored 10 or higher (indicating possible moderate depression). | 42.8±12.0  43.2±11.9  (Range, NR) | Hispanic  11.4 | 17.8  (PHQ-9) | | Psychiatric education, medication and general medical care  MADRS  PHQ-9  QLES  SDS | Telepsychiatry (80)  Face-to-Face (87) | 24  — | Community health center/  Community health center | NR  Logitech  QuickCam Orbit AF |
| (Nelson et al., 2003)  US  Academia | 28 | NR | 10.3±2.0 (8-14) | Caucasian 71.4%, Hispanic 21.4%, African 7.1%  71.4 | 13.96 (CDI) | | CBT  CDI | Telepsychiatry (14)  Face-to-Face  (14) | 8  — | University medical center/  School health room | 128  NR |
| (Ruskin et al., 2004)  US  Academia | 119 | MDD  Patients met the inclusion criteria if they scored 16 or higher on the Hamilton depression scale and met the DSM-IV (SCID) criteria for one of the following five diagnoses: major depressive disorder, dysthymic disorder, adjustment disorder with depressed mood, mood disorder due to a general medical condition, or depressive disorder not otherwise specified. | 49.7±12.8  (NR) | African American, Caucasian, Hispanic, Asian  88.24 | ≥16  (HAMD 24) | | Psychotropic medication, psychoeducation, brief supportive counselling  HAMD 24 | Telepsychiatry (59)  Face-to-Face  (60) | 26  — | (1) Psychiatrists located in Baltimore saw patients located in clinics at Perry Point or Cambridge (2) vice versa | 384  VTEL software |
| **Depressive Disorders**  **Included studies (Efficacy):**  Studies=8 (9 reports), n=1,062, Mean 132.8 patients/Study  **Country:**  US (Study=7, n=955)  Brazil (Study=1, n=107)  **Sponsor:**  Academia (Study=6, n=700)  Department of Veterans Affairs (Study=1, n=241)  US Army (Study=1, n=121) | | | | | | **Mean age:**  47.5±18.6 (range=10.3-65.2) years  **% Male:**  46.7%  **Intervention period:**  Mean=13.8 weeks (range 6−26)  **F/U period:**  Mean=34.4 weeks (range 12−52)  **Treatment**  PST (Study=2, n=279)  Psychiatric education (Study=2, n=286)  Behavioral activation therapy (Study=1, n=241)  CBT (Study=1, n=28)  Home-based tele-behavioral health (Study=1, n=121)  Outpatient treatment (Study=1, n=107) | | | | | |
| **Generalized Anxiety Disorder (1 study, n=115)** | | | | | | | | | | | |
| (Watts et al., 2020)  Canada  Academia | 115 | GAD  Patients were to have a primary diagnosis of GAD, be aged between 18 and 75, and be fluent in French. In addition, participants had to agree not to receive any other psychotherapy during the course of treatment and to refrain from starting or ceasing anxiolytic or antidepressant medication. | Telepsychiatry 43±15  Face-to-Face 40±16  (Range, 18-75) | White, Non-Hispanic  17.39 | 5.5 (GAD) | | CBT  WAI | Telepsychiatry (50)  Face-to-Face (65) | 15  — | NR/  Local clinic | 1.544 Mbp/sec  Tandberg MXP 95 codec videoconference system |
| **Obsessive Compulsive Disorder (1 study, n=22)** | | | | | | | | | | | |
| (Comer et al., 2017a)  US  Academia | 22 | OCD  Child between ages of 4–8 years.  Child meets diagnostic criteria for a principal diagnosis of OCD for at least 3 months in duration.  Child and participating parent(s) speak English.  Family home equipped with a computing device. | 6.65±1.3  (Range, 4-8) | Caucasian/Non-Hispanic/  Latino  Hispanic/  Latino  Biracial  59.1 | Internet:  22.9  Clinic: 23.2  (CY-BOCS)  Internet: 5.1  Clinic: 4.9  (OCD CSR)  Internet: 4.9  Clinic: 4.6  (CGI-S)  Internet:  48.0  Clinic: 54.6  (CGA) | | CBT  CY-BOCS  OCD CSR  CGI-S  CGAS | Telepsychiatry  (11)  Face-to-Face  (11) | 14  26 | University medical center /  Patient residence | NR  NR |
| **PTSD (11 studies, 12 reports, n=1,289)** | | | | | | | | | | | |
| (Acierno et al., 2016)  US  Department of Defense | 265 | PTSD  Full criteria PTSD or sub- threshold PTSD as defined below  Subthreshold PTSD was defined as meeting PTSD Criteria A (traumatic event) and B (re-experiencing), and either C (avoidance) or D (hyperarousal). Veterans meeting either this subthreshold definition, or full criteria PTSD were eligible for participation. | 45.6±14.9  (Range, NR) | White, Black, Hispanic, Others  94.4 | 58.3 (PCL)  25.3 (BDI)  CAPS PTSD Dx N=179 (77.2%) | | Behavioral Activation and Therapeutic Exposure (BA-TE)  PCL-M  BDI-Ⅱ | Telepsychiatry  (131)  Face-to-Face  (134) | 1  52 | NR/  Patient residence | NR  NR |
| (Acierno et al., 2017)  US  Department of Veterans Affairs | 150 | PTSD  PTSD eligibility and requirement that the criterion A event (i.e., the traumatic event) be combat-related.  To enhance generalizability of study findings, (a) veterans from each of the major conflicts comprising the majority of those served by the VA were included (i.e., OIF/OEF/OND, Persian Gulf, & Vietnam), and (b) participants receiving psychotropic medication or case management services for PTSD, mental health treatment for other psychiatric disorders, or those who met criteria for substance abuse were not excluded from participation. | 41.8±14.5  (Range, NR) | White, Black, Hispanic, Others  96.2 | 59.2  (PCL M)  27.7 (BDI) | | Prolonged Exposure  PCL-M  BDI-Ⅱ | Telepsychiatry  (74)  Face-to-Face  (76) | 10  26 | VA medical center/  Patient residence | NR  NR |
| (Frueh et al., 2007)  US  Academia | 38 | PTSD  Patients met diagnostic criteria for PTSD, were non-psychotic and were not abusing alcohol or other substances. | Telepsychiatry 55±5  Face-to-Face 56±5  (Range, NR) | African American, Caucasian, American Indian/Alaskan Native  NR | 64.6 (PCL)  24.4(BDI)  2.11 (SDL-90-R-GSI)  1.39 (Social activities inside home)  1.37 (Social activities outside home)  4.05 (Quality of social relationship) | | CBT  PCL, BDI, SDL-90-R-GSI, Social activities inside home, Social activities outside home, Quality of social relationships | Telepsychiatry (17)  Face-to-Face (21) | NR  14 | NR | 384  NR |
| (Haghnia et al., 2019)  Iran  Academia | 71 | PTSD  Veterans injured in the so-called “8-year Imposed War” who suffered from PTSD, were aged between 45 and 60 years old, and were referred to Tabriz Fajr Psychiatric Hospital for treatment. | Telepsychiatry51±3  Face-to-Face 49±3  (45-60) | NR  100 | NR | | Standardized medical care  Access to health services, completion of therapy sessions, and patient satisfaction | Telepsychiatry  （34）  Face-to-Face  (37) | NR  12 | Local hospital/  Local hospital | NR  NR |
| (Liu et al., 2020)  US  Academia | 207 | PTSD  Inclusion criteria were adult (age ≥18) male and female patients who were competent to provide informed consent, had a primary diagnosis of PTSD, and were fluent in English. | 48.4±14.1  (18 years and older) | Hispanic  Caucasian  Black  Others  77.4 | Telepsychiatry  70.4  Face-to-Face  72.5  (CAPS)  Telepsychiatry  59.4  Face-to-Face  59.4  (PCL–S)  Telepsychiatry  15.3  Face-to-Face  16.5  (PHQ–9) | | Cognitive processing therapy (CPT)  CAPS  PCL-S  PHQ-9 | Telepsychiatry (103)  Face-to-Face (104) | NR  24 | VA hospital/  Community clinic | NR  NR |
| (Maieritsch et al., 2016)  US  Academia | 90 | PTSD  An OEF/OIF/OND veteran, English-speaking, a current diagnosis of PTSD on CAPS, a military-related traumatic event (i.e., combat, sexual assault, non-combat physical assault), on a stable psychotropic medication regimen for at least one month prior to baseline assessment, and willing to maintain that regimen over the course of the study. | 30.93±6.05  (Range, NR) | NR  93.3 | 80.0 (CAPS)  60.4  (PCL)  29.2  (BDI-II) | | Cognitive processing therapy  CAPS  PCL  BDI-Ⅱ  WAI | Telepsychiatry (45)  Face-to-Face (45) | 12  ― | VA hospital /  VA hospital (distant from where they were recruited) | NR  NR |
| (Morland et al., 2010)/  (Greene et al., 2010)  US  Department of Veterans Affairs | 125 | PTSD  (1) PTSD (current or lifetime) determined by CAPS  (2) score of 20 or higher on the 10-item  trait anger subscale of STAXI-2, indicating moderate to severe anger problems  (3) stable medication regimen for a minimum of 2 months prior to study entry | Telepsychiatry  54.8±9.3  Face-to-Face  54.7±9.7  (Range, NR) | White (32.8%)  Asian (27.2%)  Pacific Islander (32.8%)  Other (5.6%)  100 | 55.8 (STAXI-2 Anger expression)  27.9 (STAXI-2 Trait anger)  109.6 (NAS-T)  65.2  (PCL-M) | | Anger Management  STAXI-2  NAS-T  PCL-M | Telepsychiatry (61)  Face-to-Face (64) | 6  26 | Hospital | NR  NR |
| (Morland et al., 2014)  US  Department of Defense | 125 | PTSD  (1) a diagnosis of current PTSD, determined by CAPS was required, and (2) participants taking psychotropic medication were required to be on a stable medication regimen for a minimum of 45 days prior to study | 55.3±12.5  (Range, NR) | Asian, Caucasian, Pacific Islander, Hispanic, Black, and Native American  100 | 70.4 (CAPS) | | CPT  CAPS | Telepsychiatry (61)  Face-to Face (64) | 12  26 | Honolulu VA/  VA clinic or Vet Center | NR  Tandberg 880 Model Health Care System |
| (Morland et al., 2015)  US  Department of Defense | 126 | PTSD  Diagnosis of current PTSD established by CAPS and a stable psychotropic medication regimen for a minimum of 45 days prior to study entry for those taking such medications | 46.4±11.9  (Range, NR) | Asian, Caucasian, Pacific Islander,  Other (Hispanic/Black/Native American)  0 | 67.1 (CAPS)  57.6 (PCL) | | CPT  CAPS | Telepsychiatry (63)  Face-to-Face (63) | 12 (once or twice a week for a total of 12)  26 | NR | NR  Tandberg  880 Model Health Care System |
| (Strachan et al., 2012)  US  Department of Defense | 40 | PTSD  Veterans of OPERATION ENDURING/IRAQI FREEDOM (OIF/OEF) who met criteria for PTSD or subthreshold PTSD, defined as fulfillment of Criteria A (traumatic event) and B (reexperiencing), and either C (avoidance) or D (hyperarousal). | 30.4±7.6  (Range, NR) | Caucasian 45.0%  92.5 | 57.9  (PCL-M)  23.2  (BDI-II)  23.5 (BAI) | | BA-TE  BAI, BDI, CAPS, PTSD Checklist-Military | Telepsychiatry (22)  Face-to-Face (18) | 8  — | NR/  Patient residence | NR  NR |
| (Yuen et al., 2015)  US  Department of Veterans Affairs | 52 | PTSD  Veterans and military personnel meeting DSM-IV-TR criteria for PTSD per the Clinical Administered PTSD Scale were eligible. | 43.98±15.18  (Range, 20-75) | White, Black, Hispanic  98.1 | 44.0 (PCL)  28.4 (BDI)  25.0 (BAI) | | PE  CAPS, PCL, BAI, and BDI | Telepsychiatry (23)  Face-to-Face (29) | 12  — | NR/  Patient residence | NR  AK Summit, Skype, Jabber, Facetime, or analog videophone with a built-in camera and video screen |
| **Eating disorder (1 study, 2 reports n=128)** | | | | | | | | | | | |
| (Mitchell et al., 2008)/  (Ertelt et al., 2011)  US  Academia | 128 | Bulimia nervosa or eating disorder  At least 18 years of age  DSM-IV criteria for bulimia nervosa (purging or non-purging subtype) or eating disorder-not otherwise specified | Telepsychiatry28.4±10.4  Face-to-Face  29.6±10.9  (Range, 18 years and older) | 96.1% Caucasian  1.6 | 19.1 (Telepsychiatry)  21.9 (Face-to-Face),  (Binge-eating episode frequency)  Telepsychiatry  28.5  Face-to-Face  31.3  (Vomiting episode frequency) | | CBT  the number of episodes | Telepsychiatry (62)  Face-to Face (66) | 16  48 | NR | NR  NR |
| **Insomnia (1 study, n=65)** | | | | | | | | | | | |
| (Arnedt et al., 2021)  US  Academia | 65 | Insomnia  Participants were recruited from November 2017 to June 2019 via advertisements, clinical referrals, and from patients pre-setting for treatment to sleep clinics. Individuals who were 18 years of age or older and met ICSD-3 criteria for chronic insomnia disorder were eligible to participate. | 43.7±17.4  (Range, 18 years and older) | White/  Caucasian  non-white/more than one race/unknown  30.3 | Telepsychiatry: 17.5  Face-to-Face: 17.2  (Insomnia Severity Index) | | CBT  (comparing face-to-face and telemedicine delivery (via the AASM SleepTM  platform)  ISI | Telepsychiatry  (33)  Face-to-Face  (32) | NR  12 | Medical facility / Patient residence | NR  NR |
| **Disruptive Behavior Disorders (1 study, n=40)** | | | | | | | | | | | |
| (Comer et al., 2017b)  US  Academia | 40 | DBD  1. Child between ages of 3–5 years (inclusive)  2. Independent evaluator assigned a principal diagnosis of DSM-IV ODD, CD, and/or DBD-NOS, based on the K-DBDS  3. ECBI in clinical range (i.e., >132)  4. Child and participating caregiver(s) speak English  5. Family home equipped with a computing device (e.g., desktop computer, laptop) | 3.95±0.9  (Range, 3-5) | Non-Hispanic  Ethnic racial minority  83.5 | Internet:  157.6  Clinic:160.0  (ECBI intensity score)  Internet:  67.3  Clinic:64.3  (CBCL)  Internet:4.1  Clinic:3.7  (CGI)  Internet:  55.3  Clinic:57.3  (CGAS)  Internet: 21.1  Clinic:22.2  (ECBI problem score) | | PCTT  ECBI intensity score  CBCL  CGI  CGAS  ECBI problem score | Telepsychiatry  (20)  Face-to-Face  (20) | NR  24 | Clinic/  Patient residence | NR  NR |
| **Substance Abuse (1 study, n=85)** | | | | | | | | | | | |
| (King et al., 2014)  US  Academia | 85 | Substance abuse  Patients were eligible for the study if they:  1) were drug abstinent and counseling adherent for the previous 30 days;  2) stated that they had a functioning computer with Internet connection;  3) were interested in receiving standard individual counseling via web-based videoconferencing and agreed to register with eGetgoing within 8 weeks of study enrollment;  and 4) agreed to randomized assignment to study condition. | 40.9±10.7  (Range, NR) | NR  44.1 | NR | | eGetgoing / counseling  Urinalysis testing | Telepsychiatry (50)  Face-to-Face (35) | 12  — | Medical center/  Patient residence | NR  NR |
| **Mild Dementia, Mild Cognitive Impairment, or Vascular Cognitive Impairment (2 studies, n=83)** | | | | | | | | | | | |
| (Mosca et al., 2020)  Italy  Academia | 61 | MCI and VCI  (1) MMSE score >24;  (2) age between 65 and 80 years old; (3) school attendance >3 years;  (4) right- handed according to the Edinburgh Scale;  (5) Italian language as mother tongue; (6) normal or corrected visual and auditory acuity;  (7) preserved physical mobility or manual dexterity. | 73.9 ± 4.0  (65-80) | NR  42.6 | 21.7  (Montreal Cognitive Assessment) | | Rehabilitation  Dropout rate | Telepsychiatry  (29)  Face-to-Face  (32) | NR  48 | NR/  Patient residence | NR  NR |
| (Poon et al., 2005)  Hong Kong  Academia | 22 | Mild dementia or MCI  Potential candidates were first screened by C-MMSE. Subjects who scored below the cut-off points (taking into account their educational level) for cognitive impairment were referred to a geriatrician for confirmation of diagnosis. | NR  (Range, NR) | NR  NR | 18.73  (C-MMSE)  5.64  (C-RBMTT-profile)  154.82 (HDS) | | Cognitive intervention  C-MMSE, C-RBMTT-profile, HDS | Telepsychiatry (11)  Face-to-Face  (11) | >6  — | Shatin Hospital /Social center | 1.5 Mbp/sec  NR |
| **Two or more diagnoses included (4 studies, n=683)** | | | | | | | | | | | |
| (De Las Cuevas et al., 2006)  Spain  Academia | 140 | Not specified. (140 consecutive psychiatric outpatients recruited from the Mental Health Centre of San Sebastian de la Gomera, in the Canary Islands) | NR | NR  33.6 | 90.7% (CGI-S "Markedly ill") | | Consultations  CGI-S, CGI-I, SCL-90R(GSI, PSDI and PST) | Telepsychiatry (70)  Face-to-Face (70) | 24  — | University hospital/  Mental Healthcare Centre | 384 to 768  Polycom 512 View Station and high-quality enhanced video |
| (O'Reilly et al., 2007)  UK  Academia | 495 | Multiple diagnosis  Patients were eligible if they were aged 18 to 65, from the Thunder Bay region (officially designated as an underserviced area for psychiatry), and referred by a family doctor to the psychiatric outpatient department of the local general hospital. | NR  (18-65) | NR  37.0 | 57.6  (Global severity index of the BSI) | | Usual care  BSI, CSQ, GSI, MCS | Telepsychiatry (241)  Face-to-Face (254) | 16  — | Clinic/  Regional hospital | 384  Polycom 512 View Station and a Sony Trinitron 68.5-centimeter diagonal |
| (Shulman et al., 2017)  US  Academia | 22 | Multiple  The study participants were recruited from active patients in the outpatient clinic who were between the ages of 18 and 65.  Inclusion criteria required participants to have missed two scheduled clinic appointments due to no-show or cancellation with less than 24 hours’ notice over a two-month period at any point over the past six months. | Telepsychiatry 42±15  Face-to-Face  37±10  (Range, 18-65) | Caucasian  Black  Asian  Hispanic  36,4 | 41  (no-show rate) | | psychotropic medication and talk therapy  no-show rate | Telepsychiatry (11)  Face-to-Face (11) | 26  NR | Clinic/  Patient residence | NR  NR |
| (Stubbings et al., 2013)  Australia  Academia | 26 | Mood or anxiety disorders  A primary diagnosis of DSM-IV-TR Axis-I disorder, aged 18-65 years old, and living in Perth, Western Australia | 30±11 (18-59)  (Range, 18-65) | NR  42.3 | 18.2 (DASS depression) 14.0 (DASS anxiety) 23.8 (DASS stress) 3.34 (QLES) | | CBT  DASS (depression, anxiety, stress), QLES | Telepsychiatry (14)  Face-to-Face (12) | 12  18 | Clinics/Clinics | 100Mbps/sec  NR |
| **Chronic tic disorders:** Study=1, n=20  **Depressive disorders:** Study=8 (9 reports), n=1,062  **Mood and anxiety Disorders:** Study=1, n=115  **OCD:** Study=1, n=22  **PTSD:** Study=11 (12 reports), n=1,312  **Eating disorder:** 1 study (2 reports) n=128  **Insomnia:** Study=1, n=65  **DBD:** Study=1, n=40  **Opioid dependence and comprehensive substance abuse:** Study=1, n=85  **Mild dementia or MCI:** Study=2, n=83  **Two or more diagnoses included:** Study=4, n=683 | | | | | **Total study:** 32 RCTs (35 reports)  **Mean duration (weeks):** 23.7±13.3  **Total participants:** n= 3,592,  **Participants per study:** Median=111 (range: 22-495)  **Mean age:** 41.3±17.8  **% Male:** 58.2±33.7  **Country:**  USA (Study=24, n=2,555), Italy (Study=1, n=61), Australia (Study=1, n=26), Brazil (Study=1, n=107), Canada (Study=1, n=115), Hong Kong (Study=1, n=22), Iran (Study=1, n=71), Spain (Study=1, n=140), UK (Study=1, n=149) | | | | | | |

**Abbreviations:**

ADHD=Attention-Deficit Hyperactivity Disorder, ADIS-C/P=Anxiety Disorders Interview Schedule for Children and Parents, ARSMA II=Acculturation Rating Scale for Mexican Americans, BAI= Beck Anxiety Inventory, BATD=Behavioral Activation Treatment for Depression, BATE=Behavioral Activation and Therapeutic Exposure, BDI=Beck Depression Inventory, BHS=Beck Hopelessness Scale, BN=Bulimia Nervosa, BSI=Brief Symptom Inventory, BTPS=Barriers to Treatment Participation Scale, Cansas=Camberwell Assessment of Needs Short Appraisal Schedule, CAPS=Clinician-Administered PTSD Scale, CBCL=Child Behavior Checklist, CBT=Cognitive Behavioral Therapy, CD=Conduct Disorder, CDI=Children’s Depression Inventory, CGAS= Children’s Global Assessment Scale, CGI-S/I=Clinical Global Impression-Severity and Improvement Scales, CIS-P=Columbia Impairment Scale, Parent-Report Version, C-MMSE=Cantonese version of Mini-Mental State Examination, CPOSS=Charleston Psychiatric Outpatient Satisfaction, CPT=Cognitive Processing Therapy, C-RBMT=Cantonese version of Rivermead Behavioural Memory test, CSQ-8=Client Satisfaction Questionnaire, CSR=Clinical Severity Ratings, CTD=Chronic Tic Disorder, CY-BOCS=Children’s Yale-Brown Obsessive-Compulsive Scale, DASS=Depression Anxiety and Stress Scale, DBD-NOS=Disruptive Behavior Disorder-Not Otherwise Specified, DSM-IV-TR=Diagnostic and Statistical Manual of Mental Disorders fourth edition text revision, ECBI=Eyberg Child Behavior Inventory, EPDS=Edinburgh Postnatal Depression Scale, FAS-PR=Family Accommodation Scale-Parent Report, FES=Family Empowerment Scale, GAD=Generalized Anxiety Disorder, GCCT-MSH=Georgia Court Competency Test–Mississippi State Hospital revision, GDS=Geriatric Depression Scale, GSI=Global Severity Index, HAMD=Hamilton Rating Scale for Depression, HDS=Hierarchic Dementia Scale, HoNOS=Health of the Nation Outcome Scales, HSCL=Hopkins Symptom Checklist, IASMHS=Inventory of Attitudes Toward Seeking Mental Health Services, ICER=Incremental Cost and Incremental Cost-Effectiveness Ratio, K-DBDS=Kiddie-Disruptive Behavior Disorder Schedule, MADRS=Montgomery-Åsberg Depression Rating Scale, MANSA= Manchester Short Assessment of Quality of Life, MCI=Mild Cognitive Impairment, MDD=Major Depressive Disorder, MHI=Mental Health Inventory, MINI= Mini-International Neuropsychiatric Interview, MMSE=Mini Mental State Examination, NAS-T=Novaco Anger Scale total score, NR=not reported, OCD=Obsessive-Compulsive Disorder, ODD=Oppositional Defiant Disorder, OEF/OIF/OND=Operation Enduring Freedom, Operation Iraq Freedom and Operation New Dawn, PCIT=Parent–Child Interaction Therapy, PCL-M=PTSD Checklist-Military Version, PE=Prolonged Exposure, PHQ-9=the nine-item Patient Health Questionnaire, PRCQ=Patient Reported Costs Questionnaire, PSS=Parental Stress Scale, PST=problem solving therapy, PTQ=Parent Tic Questionnaire, PTSD=Post Traumatic Stress Disorder, QALY=Quality-Adjusted Life-Years, QLES= Quality of Life Enjoyment and Satisfaction scale, RCT=randomized controlled trial, SCID=Structured Clinical Interview, SCID-I/P=Structured Clinical Interview for the DSM–IV Axis I Disorders (Research Version, Patient ed.), SDS=Sheehan’s Disability Scale, SF-36=Medical Outcomes Study Short Form, STAXI-2=State-Trait Anger Expression Inventory-2, TAI= Therapy Attitude Inventory, TAU=Treatment as Usual, TD=Tourette Disorder, TEI=Treatment Evaluation Inventory, TSQ=Telemedicine Satisfaction Questionnaire, VA= Veterans Affairs, VADRS=Vanderbilt ADHD Rating Scales, VAMC=Veterans Affairs Medical Center, VCI=Vascular Cognitive Impairment, WAI=Working Alliance Inventory, WHODAS=World Health Organization Disability Assessment Schedule, YGTSS= Yale Global Tic Severity Scale

**Table S2 (A). Summary of pooled results of secondary outcomes (dichotomous outcomes)**

| **Outcomes** | **# of Studies** | **# of participants** | **RR** | **95% CI** | | ***p* value** | **Heterogeneity** | | **NNTB/NNTH (95% CI)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lower limit** | **Upper limit** | ***p* value** | ***I2*** |
| **Chronic tic disorders** | | | | | | | | | |
| All-cause discontinuation | N=1 | 20 | 0.333 | 0.041 | 2.686 | 0.302 | − | − | NA |
| Treatment response | N=1 | 17 | 1.688 | 0.734 | 3.881 | 0.218 | − | − | NA |
| **Depressive disorders** |  |  |  |  |  |  |  |  |  |
| All-cause discontinuation | N=6 | 874 | 1.030 | 0.800 | 1.325 | 0.819 | 0.656 | 0.0 | NA |
| Discontinuation due to lack of efficacy | N=1 | 107 | 1.019 | 0.065 | 15.87 | 0.989 | − | − | NA |
| Remission | N=1 | 119 | 1.114 | 0.696 | 1.782 | 0.653 | − | − | NA |
| Treatment response | N=2 | 343 | 1.116 | 0.821 | 1.518 | 0.483 | 0.895 | 0.0 | NA |
| Death | N=1 | 241 | 1.260 | 0.347 | 4.580 | 0.725 | − | − | NA |
| **Generalized anxiety disorder** | | | | | | | | | |
| All-cause discontinuation | N=1 | 148 | 1.390 | 0.741 | 2.609 | 0.305 | − | − | NA |
| **Obsessive compulsive disorder** | | | | | | | | | |
| All-cause discontinuation | N=1 | 22 | 0.500 | 0.053 | 4.745 | 0.546 | − | − | NA |
| Needed higher level of care | N=1 | 22 | 3.000 | 0.135 | 66.526 | 0.487 | − | − | NA |
| Scheduling difficulties | N=1 | 22 | 0.333 | 0.015 | 7.392 | 0.487 | − | − | NA |
| **Post-traumatic stress disorder** | | | | | | | | | |
| All-cause discontinuation | N=10 | 1,237 | 0.956 | 0.776 | 1.179 | 0.675 | 0.212 | 25.2 | NA |
| Attendance | N=2 | 251 | 0.961 | 0.852 | 1.083 | 0.515 | 0.951 | 0.0 | NA |
| TEQ (Homework) | N=1 | 126 | 0.962 | 0.799 | 1.159 | 0.685 | − | − | NA |
| TEQ (Treatment Completion) | N=1 | 126 | 0.960 | 0.796 | 1.157 | 0.666 | − | − | NA |
| **Eating disorder** | | | | | | | | | |
| All-cause discontinuation | N=1 | 128 | 0.909 | 0.681 | 1.213 | 0.516 | − | − | NA |
| Objective binge-eating episode | N=1 | 128 | 0.882 | 0.622 | 1.251 | 0.481 | − | − | NA |
| Objective binge-eating episode and purging | N=1 | 128 | 0.784 | 0.432 | 1.425 | 0.425 | − | − | NA |
| Purging | N=1 | 128 | 0.741 | 0.433 | 1.265 | 0.272 | − | − | NA |
| **Insomnia** |  |  |  |  |  |  |  |  |  |
| All-cause discontinuation | N=1 | 65 | 1.939 | 0.185 | 20.350 | 0.581 | − | − | NA |
| Remission | N=1 | 65 | 0.905 | 0.526 | 1.557 | 0.718 | − | − | NA |
| Treatment response | N=1 | 65 | 0.921 | 0.619 | 1.371 | 0.686 | − | − | NA |
| **Disruptive behavior disorders** | | | | | | | | | |
| All-cause discontinuation | N=1 | 40 | 0.625 | 0.247 | 1.584 | 0.322 | − | − | NA |
| **Substance abuse** | | | | | | | | | |
| **All-cause discontinuation a)** | N=**1** | **85** | **37.41** | **2.356** | **594.1** | **0.010** | − | − | **NNTH=2 (2, 3)** |
| **Mild dementia or mild cognitive impairments** | | | | | | | | | |
| All-cause discontinuation | N=1 | **61** | **0.552** | **0.312** | **0.975** | **0.040** | − | − | **NNTB=4 (2, 26)** |
| **Two or more diagnoses included** | | | | | | | | | |
| All-cause discontinuation | N=3 | 661 | 1.014 | 0.831 | 1.238 | 0.891 | 0.790 | 0.0 | NA |
| Any hospitalization in a psychiatric unit in year after initial assessment | N=1 | 470 | 0.915 | 0.473 | 1.772 | 0.793 | − | − | NA |
| CGI-I≦2 | N=1 | 140 | 1.057 | 0.885 | 1.261 | 0.542 | − | − | NA |
| CGI-S≦2 | N=1 | 140 | 1.068 | 0.837 | 1.363 | 0.595 | − | − | NA |
| DASS Depression Improved | N=1 | 16 | 1.556 | 0.787 | 3.076 | 0.204 | − | − | NA |
| DASS Depression Recovered | N=1 | 16 | 1.815 | 0.720 | 4.572 | 0.206 | − | − | NA |
| DASS Depression Unchanged | N=1 | 16 | 0.194 | 0.027 | 1.375 | 0.101 | − | − | NA |
| DASS Stress Improved | N=1 | 16 | 3.111 | 0.943 | 10.27 | 0.062 | − | − | NA |
| DASS Stress Recovered | N=1 | 16 | 2.722 | 0.802 | 9.241 | 0.108 | − | − | NA |
| DASS Stress Unchanged | N=1 | 16 | 0.156 | 0.023 | 1.047 | 0.056 | − | − | NA |
| Depression No Change | N=1 | 6 | 1.000 | 0.183 | 5.460 | 1.000 | − | − | NA |
| Depression Recovered | N=1 | 6 | 1.000 | 0.183 | 5.460 | 1.000 | − | − | NA |
| GAD No Change | N=1 | 4 | 0.667 | 0.044 | 10.05 | 0.770 | − | − | NA |
| GAD Recovered | N=1 | 4 | 1.200 | 0.398 | 3.616 | 0.746 | − | − | NA |
| GSI Moved from above to below cutoff score | N=1 | 130 | 1.131 | 0.801 | 1.599 | 0.484 | − | − | NA |
| GSI-not recovered | N=1 | 130 | 1.084 | 0.621 | 1.891 | 0.777 | − | − | NA |
| GSI-recovered | N=1 | 130 | 0.938 | 0.651 | 1.353 | 0.733 | − | − | NA |
| OCD No Change | N=1 | 12 | 0.833 | 0.309 | 2.245 | 0.718 | − | − | NA |
| OCD Recovered | N=1 | 12 | 1.333 | 0.230 | 7.743 | 0.749 | − | − | NA |
| PSDI-moved from above to below cutoff score | N=1 | 130 | 1.007 | 0.855 | 1.186 | 0.933 | − | − | NA |
| PSDI-not recovered | N=1 | 130 | 0.776 | 0.218 | 2.760 | 0.695 | − | − | NA |
| PSDI-recovered | N=1 | 130 | 0.925 | 0.717 | 1.193 | 0.546 | − | − | NA |
| PST-moved from above to below cutoff score | N=1 | 130 | 0.938 | 0.651 | 1.353 | 0.733 | − | − | NA |
| PST-not recovered | N=1 | 130 | 1.067 | 0.487 | 2.337 | 0.872 | − | − | NA |
| PST-recovered | N=1 | 130 | 1.058 | 0.664 | 1.685 | 0.813 | − | − | NA |
| QLES Deteriorated | N=1 | 17 | 0.300 | 0.014 | 6.471 | 0.442 | − | − | NA |
| QLES Improved | N=1 | 17 | 1.185 | 0.373 | 3.762 | 0.773 | − | − | NA |
| QLES Recovered | N=1 | 17 | 0.889 | 0.246 | 3.216 | 0.858 | − | − | NA |
| QLES Unchanged | N=1 | 17 | 1.111 | 0.449 | 2.751 | 0.820 | − | − | NA |
| Return to functional score on BSI | N=1 | 286 | 1.109 | 0.704 | 1.748 | 0.654 | − | − | NA |
| **All studies of all diagnoses** | | | | | | | | | |
| All-cause discontinuation | N=27  PTSD (10)  Depressive disorders (6)  Multi (3)  DBD (1)  Eating disorder (1)  GAD (1)  Insomnia (1)  MCI (1)  OCD (1)  Substance abuse (1)  Tic disorders (1) | 3,341 | 0.964 | 0.853 | 1.091 | 0.564 | 0.241 | 15.2 | NA |
| Remission | N=2  Depressive disorders (1)  Insomnia (1) | 184 | 0.023 | -0.304 | 0.350 | 0.889 | 0.576 | 0.0 | NA |
| Treatment response | N=4  Depressive disorders (2)  Insomnia (1)  Tic Disorders (1) | 425 | 0.080 | -0.153 | 0.312 | 0.503 | 0.617 | 0.0 | NA |

**Notes:**

Significant results are in bold. RR values lower than 1.0 indicate that telepsychiatry has lower incidence than face-to-face.

1. Of the 50 patients assigned to videoconferencing, 26 dropped out of the study due to technical problems with the computer or internet connection. Excluding these patients, there were no dropouts among the 24 patients assigned to videoconferencing.

**Abbreviations:**

BSI=brief symptom inventory, CGI-S=clinical global impressions-severity, CI=confidence interval, DASS=depression anxiety and stress scale, GAD=generalized anxiety disorder, GSI=global severity index, NA=not applicable, NNTB=number needed to treat for an additional beneficial outcome, NNTH=number needed to treat for an additional harmful outcome, OCD=obsessive-compulsive disorder, PSDI=positive symptom distress index, PST=positive symptom total, QLES=quality of life enjoyment and satisfaction scale, RR=risk ratio, TEQ=treatment expectancy questionnaire

**Table S2 (B). Summary of pooled results of secondary outcomes (continuous outcomes)**

| **Outcomes** | **# of Studies** | **# of participants** | **SMD** | **95% CI** | | ***p* value** | **Heterogeneity** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lower limit** | **Upper limit** | ***p* value** | ***I2*** |
| **Chronic tic disorders** | | | | | | | | |
| Parent Tic Questionnaire | 1 | 16 | -0.277 | -1.269 | 0.715 | 0.584 | − | − |
| **Depressive disorders** |  |  |  |  |  |  |  |  |
| Anxiety Symptom Scale Score | 1 | 78 | 0.310 | -0.138 | 0.758 | 0.175 | − | − |
| CPOSS | 1 | 241 | -0.046 | -0.299 | 0.206 | 0.719 | − | − |
| CSQ | 2 | 172 | 0.175 | -0.125 | 0.475 | 0.252 | 0.833 | 0.0 |
| Hopelessness Scale Score | 1 | 78 | 0.190 | -0.256 | 0.636 | 0.403 | − | − |
| IASMHS | 1 | 78 | -0.052 | -0.497 | 0.393 | 0.819 | − | − |
| Kept appointment  average visit | 1 | 119 | 0.040 | -0.316 | 0.396 | 0.826 | − | − |
| Patient satisfaction  Scale Score | 1 | 119 | 0.300 | -0.150 | 0.750 | 0.192 | − | − |
| PCL | 1 | 78 | 0.183 | -0.263 | 0.629 | 0.421 | − | − |
| **Psychiatrist satisfaction Scale Score** | **1** | **119** | **0.490** | **0.050** | **0.930** | **0.029** | − | − |
| **QoL Scale Score** | **1** | **144** | **-0.462** | **-0.793** | **-0.131** | **0.006** | − | − |
| QoL Scale Score, QWB, or SF-36 | 2 | 385 | -0.205 | -0.683 | 0.273 | 0.400 | **0.021** | **81.1** |
| SDP  (Communication quality) | 1 | 241 | 0.129 | -0.124 | 0.382 | 0.318 | − | − |
| SDP (Group comfort) | 1 | 241 | 0.000 | -0.253 | 0.253 | 1.000 | − | − |
| **SDP (Likelihood of referring a friend)** | **1** | **241** | **0.276** | **0.022** | **0.530** | **0.033** | − | − |
| **SDP**  **(Likelihood of return)** | **1** | **241** | **0.322** | **0.068** | **0.576** | **0.013** | − | − |
| **SDP (Overall satisfaction)** | **1** | **241** | **0.322** | **0.068** | **0.576** | **0.013** | − | − |
| SDP (Personal comfort) | 1 | 241 | -0.086 | -0.339 | 0.167 | 0.505 | − | − |
| SDP (Willingness to drive to same-room treatment) | 1 | 241 | 0.076 | -0.177 | 0.328 | 0.557 | − | − |
| SDP (Willingness to drive to telepsychiatry treatment) | 1 | 241 | -0.072 | -0.324 | 0.181 | 0.579 | − | − |
| **SDS or WHODAS** | **2** | **262** | **-0.398** | **-0.763** | **-0.034** | **0.032** | 0.139 | 54.4 |
| SF-36  (Emotional well-being) | 1 | 241 | 0.012 | -0.240 | 0.265 | 0.924 | − | − |
| SF-36 (Energy to fatigue) | 1 | 241 | 0.020 | -0.232 | 0.273 | 0.874 | − | − |
| SF-36 (General health) | 1 | 241 | 0.027 | -0.226 | 0.279 | 0.835 | − | − |
| SF-36 (Limits due to emotional problems) | 1 | 241 | -0.041 | -0.293 | 0.212 | 0.752 | − | − |
| SF-36 (Limits due to physical health) | 1 | 241 | -0.065 | -0.317 | 0.188 | 0.615 | − | − |
| SF-36 (Pain) | 1 | 241 | 0.063 | -0.190 | 0.315 | 0.627 | − | − |
| SF-36  (Physical function) | 1 | 241 | -0.003 | -0.256 | 0.249 | 0.979 | − | − |
| SF-36  (Social functioning) | 1 | 241 | 0.029 | -0.224 | 0.281 | 0.824 | − | − |
| Treatment credibility | 1 | 241 | -0.102 | -0.354 | 0.151 | 0.430 | − | − |
| WAI | 1 | 84 | -0.054 | -0.483 | 0.375 | 0.805 | − | − |
| **G****eneralized anxiety disorder** | | | | | | | | |
| **WAI-C** | **1** | **115** | **-0.458** | **-0.831** | **-0.084** | **0.016** | − | − |
| WAI-T | 1 | 115 | -0.070 | -0.439 | 0.299 | 0.709 | − | − |
| **Obsessive compulsive disorder** | | | | | | | | |
| CGAS | 1 | 19 | -0.534 | -1.450 | 0.382 | 0.253 | − | − |
| CGI-S | 1 | 19 | -0.235 | -1.139 | 0.668 | 0.610 | − | − |
| CSQ | 1 | 20 | 0.560 | -0.334 | 1.454 | 0.219 | − | − |
| Family accommodation scale | 1 | 19 | -0.484 | -1.398 | 0.430 | 0.299 | − | − |
| Mean # sessions/case that started on time | 1 | 20 | 0.043 | -0.833 | 0.920 | 0.923 | − | − |
| OCD CSR | 1 | 19 | -0.076 | -0.976 | 0.825 | 0.869 | − | − |
| WAI-C | 1 | 20 | 0.546 | -0.347 | 1.438 | 0.231 | − | − |
| WAI-T | 1 | 20 | 0.262 | -0.618 | 1.142 | 0.559 | − | − |
| **Post-traumatic stress disorder** | | | | | | | | |
| Access to psychiatrists | 1 | 60 | -0.388 | -0.899 | 0.122 | 0.136 | − | − |
| Anxiety Symptom Scale Score | 2 | 75 | -0.190 | -0.646 | 0.266 | 0.414 | 0.944 | 0.0 |
| Attendance scale score | **1** | **28** | **1.309** | **0.493** | **2.125** | **0.002** | − | − |
| CAPS | 5 | 444 | -0.080 | -0.266 | 0.107 | 0.401 | 0.889 | 0.0 |
| CAPS or PCL  (CAPS preferred to PCL) | 10 | 948 | -0.023 | -0.150 | 0.105 | 0.728 | 0.911 | 0.0 |
| Completion of the therapy sessions | 1 | 60 | -0.173 | -0.680 | 0.334 | 0.502 | − | − |
| CPOSS | 4 | 384 | -0.025 | -0.251 | 0.200 | 0.827 | 0.306 | 17.0 |
| Depressive Symptom Scale Score | 7 | 610 | 0.041 | -0.118 | 0.200 | 0.616 | 0.923 | 0.0 |
| Follow-up treatment cost | 1 | 60 | 0.202 | -0.306 | 0.709 | 0.436 | − | − |
| GTAS (Leader-group) | 1 | 112 | 0.151 | -0.220 | 0.521 | 0.427 | − | − |
| GTAS (Leader-group) | 2 | 237 | 0.071 | -0.184 | 0.326 | 0.585 | 0.563 | 0.0 |
| GTAS (Leader-self) | 2 | 237 | 0.110 | -0.602 | 0.823 | 0.761 | **0.006** | **86.9** |
| GTAS (Group-Group) | 1 | 125 | -0.181 | -0.532 | 0.171 | 0.314 | − | − |
| GTAS (Self-group) | 1 | 112 | 0.153 | -0.218 | 0.524 | 0.418 | − | − |
| GTAS (Total) | 2 | 237 | 0.036 | -0.532 | 0.605 | 0.900 | **0.027** | **79.6** |
| Homework completion | 2 | 146 | 0.219 | -0.357 | 0.795 | 0.456 | 0.185 | 43.2 |
| NAS-T | 1 | 125 | -0.131 | -0.482 | 0.220 | 0.465 | − | − |
| Number of sessions | 1 | 125 | 0.123 | -0.228 | 0.474 | 0.492 | − | − |
| **Patient satisfaction scale score** | **1** | **60** | **-0.900** | **-1.431** | **-0.369** | **0.001** | − | − |
| Patient waiting time | 1 | 60 | 0.045 | -0.462 | 0.551 | 0.863 | − | − |
| PCL | 8 | 735 | -0.029 | -0.174 | 0.116 | 0.695 | 0.789 | 0.0 |
| Quality of social relationships | 1 | 13 | 0.463 | -0.668 | 1.595 | 0.422 | − | − |
| SCL-90 | 1 | 15 | 0.023 | -1.010 | 1.056 | 0.966 | − | − |
| SDP (Communication quality) | 1 | 20 | 0.702 | -0.206 | 1.609 | 0.130 | − | − |
| SDP (Group comfort) | 1 | 21 | 0.724 | -0.168 | 1.615 | 0.112 | − | − |
| SDP (Likelihood of referring a friend) | 1 | 21 | 0.384 | -0.488 | 1.256 | 0.389 | − | − |
| SDP (Likelihood of return) | 1 | 21 | 0.904 | -0.003 | 1.810 | 0.051 | − | − |
| SDP (Overall satisfaction) | 1 | 21 | 0.413 | -0.460 | 1.286 | 0.354 | − | − |
| **SDP (Personal comfort)** | **1** | **21** | **1.380** | **0.420** | **2.339** | **0.005** | − | − |
| SDP (Willingness to drive to same-room treatment) | 1 | 21 | 0.171 | -0.694 | 1.037 | 0.698 | − | − |
| SDP (Willingness to drive to telepsychiatry treatment) | 1 | 20 | -0.260 | -1.144 | 0.625 | 0.565 | − | − |
| Social activities inside home | 1 | 13 | -0.124 | -1.242 | 0.995 | 0.828 | − | − |
| Social activities outside home | 1 | 13 | -0.409 | -1.537 | 0.719 | 0.478 | − | − |
| Treatment credibility | 1 | 21 | -0.119 | -0.984 | 0.746 | 0.787 | − | − |
| **STAXI-2 Anger expression** | **1** | **125** | **-0.408** | **-0.762** | **-0.054** | **0.024** | − | − |
| **STAXI-2 Trait anger** | **1** | **125** | **-0.437** | **-0.792** | **-0.082** | **0.016** | − | − |
| Treatment Expectancy Questionnaire | 1 | 125 | -0.069 | -0.420 | 0.281 | 0.698 | − | − |
| Treatment Expectancy Questionnaire | 1 | 126 | 0.129 | -0.221 | 0.479 | 0.469 | − | − |
| WAI-C | 1 | 126 | 0.031 | -0.318 | 0.380 | 0.863 | − | − |
| WAI-T | 1 | 126 | 0.038 | -0.311 | 0.388 | 0.829 | − | − |
| **Eating disorder** | | | | | | | | |
| Depressive Symptom Scale Score | 1 | 128 | 0.092 | -0.254 | 0.439 | 0.601 | − | − |
| **EDE Eating concerns** | **1** | **128** | **0.606** | **0.252** | **0.961** | **0.001** | − | − |
| **EDE Shape concerns** | **1** | **128** | **0.426** | **0.076** | **0.777** | **0.017** | − | − |
| EDE Weight concerns | 1 | 128 | 0.296 | -0.053 | 0.644 | 0.097 | − | − |
| MCS | 1 | 128 | 0.029 | -0.317 | 0.376 | 0.868 | − | − |
| PCS | 1 | 128 | 0.080 | -0.267 | 0.427 | 0.651 | − | − |
| Rosenberg self-esteem | 1 | 128 | 0.100 | -0.247 | 0.447 | 0.572 | − | − |
| WAI-C (Bond) | 1 | 128 | 0.166 | -0.182 | 0.513 | 0.350 | − | − |
| **WAI-C (Goal)** | **1** | **128** | **0.376** | **0.027** | **0.726** | **0.035** | − | − |
| WAI-C (Tasks) | 1 | 128 | 0.287 | -0.061 | 0.636 | 0.106 | − | − |
| **Insomnia** | | | | | | | | |
| Anxiety Symptom Scale Score | 1 | 65 | -0.280 | -0.768 | 0.209 | 0.262 | − | − |
| Daily SE | 1 | 65 | -0.296 | -0.784 | 0.193 | 0.236 | − | − |
| Daily SL (min) | 1 | 65 | 0.079 | -0.408 | 0.565 | 0.751 | − | − |
| Daily TST | 1 | 65 | -0.342 | -0.832 | 0.147 | 0.171 | − | − |
| **Daily WASO** | **1** | **65** | **-0.625** | **-1.123** | **-0.127** | **0.014** | − | − |
| DBAS-16 | 1 | 65 | -0.283 | -0.772 | 0.205 | 0.256 | − | − |
| Depressive Symptom Scale Score | 1 | 65 | 0.076 | -0.410 | 0.563 | 0.758 | − | − |
| MCS | 1 | 65 | 0.213 | -0.275 | 0.701 | 0.392 | − | − |
| MFI General | 1 | 65 | 0.057 | -0.429 | 0.544 | 0.818 | − | − |
| PCS | 1 | 65 | -0.064 | -0.551 | 0.422 | 0.795 | − | − |
| WSAS | 1 | 65 | 0.453 | -0.040 | 0.945 | 0.071 | − | − |
| **Disruptive behavior disorders** | | | | | | | | |
| CBCL Externalizing | 1 | 40 | -0.197 | -0.819 | 0.424 | 0.534 | − | − |
| CGAS | 1 | 40 | -0.027 | -0.646 | 0.593 | 0.933 | − | − |
| **CGI-S** | **1** | **40** | **-0.761** | **-1.403** | **-0.119** | **0.020** | − | − |
| ECBI problem score | 1 | 40 | 0.210 | -0.412 | 0.831 | 0.508 | − | − |
| **Substance abuse** | | | | | | | | |
| Attendance scale score | 1 | 59 | 0.232 | -0.289 | 0.753 | 0.383 | − | − |
| CSQ | 1 | 56 | -0.444 | -0.987 | 0.098 | 0.108 | − | − |
| HAQ-II (Patients) | 1 | 54 | -0.345 | -0.892 | 0.201 | 0.216 | − | − |
| HAQ-II (Therapists) | 1 | 51 | 0.000 | -0.562 | 0.562 | 1.000 | − | − |
| **Mild dementia or mild cognitive impairments** | | | | | | | | |
| C-RBMT | 1 | 22 | -0.089 | -0.925 | 0.747 | 0.835 | − | − |
| Hierarchic Dementia Scale | 1 | 22 | 0.005 | -0.831 | 0.840 | 0.991 | − | − |
| **Two or more diagnoses included** | | | | | | | | |
| Anxiety Symptom Scale Score | 1 | 16 | -0.036 | -1.024 | 0.952 | 0.943 | − | − |
| CGI-S or GSI | 3 | 546 | 0.010 | -0.158 | 0.178 | 0.907 | 0.959 | 0.0 |
| CGI-S | 1 | 130 | 0.000 | -0.344 | 0.344 | 1.000 | − | − |
| CSQ | 1 | 254 | 0.051 | -0.195 | 0.297 | 0.683 | − | − |
| DASS Stress Subscale | 1 | 16 | -0.336 | -1.330 | 0.659 | 0.508 | − | − |
| DASS Total | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − |
| Depressive Symptom Scale Score | 1 | 16 | -0.618 | -1.629 | 0.392 | 0.230 | − | − |
| GSI | 2 | 416 | 0.013 | -0.179 | 0.205 | 0.893 | 0.778 | 0.0 |
| MCS | 1 | 286 | -0.074 | -0.306 | 0.158 | 0.531 | − | − |
| No show rate | 1 | 22 | 0.048 | -0.788 | 0.883 | 0.911 | − | − |
| Positive Symptom Distress Index | 1 | 130 | 0.187 | -0.157 | 0.532 | 0.286 | − | − |
| Positive Symptom Total | 1 | 130 | 0.093 | -0.251 | 0.437 | 0.598 | − | − |
| QLES | 1 | 17 | -0.579 | -1.551 | 0.393 | 0.243 | − | − |
| Treatment Credibility | 1 | 24 | -0.132 | -0.935 | 0.672 | 0.748 | − | − |
| WAI-C | 1 | 23 | -0.266 | -1.087 | 0.556 | 0.526 | − | − |
| WAI-T | 1 | 24 | 0.223 | -0.582 | 1.028 | 0.587 | − | − |
| **All studies on all diagnoses** | | | | | | | | |
| Anxiety Symptom Scale Score | N=5  Depressive disorders (1)  Insomnia (1)  Multi (1)  PTSD (2) | 234 | -0.038 | -0.297 | 0.220 | 0.770 | 0.450 | 0.0 |
| Attendance Scale Score | N=2  PTSD (1)  Substance abuse (1) | 87 | 0.723 | -0.328 | 1.774 | 0.178 | **0.029** | **79.0** |
| CGAS | N=2  DBD (1)  OCD (1) | 59 | -0.186 | -0.699 | 0.328 | 0.478 | 0.369 | 0.0 |
| CGI-S | N=3  DBD (1)  Multi (1)  OCD (1) | 189 | -0.284 | -0.783 | 0.216 | 0.266 | 0.122 | 52.5 |
| CGI-S or GSI | N=5  DBD (1)  OCD (1)  Multi (3) | 605 | -0.073 | -0.277 | 0.130 | 0.480 | 0.244 | 26.6 |
| CPOSS | N=5  PTSD (4)  Depressive disorders (1) | 625 | -0.032 | -0.189 | 0.125 | 0.693 | 0.458 | 0.0 |
| CSQ | N=5  Depressive disorders (2)  Multi (1)  OCD (1)  Substance abuse (1) | 502 | 0.062 | -0.154 | 0.278 | 0.572 | 0.273 | 22.1 |
| Depressive Symptom Scale Score | N=16  PTSD (7)  Depressive disorders (6)  Eating disorder (1)  Insomnia (1)  Multi (1) | 1,380 | -0.105 | -0.265 | 0.055 | 0.199 | **0.011** | **50.3** |
| GSI | N=2  Multi (2) | 416 | 0.013 | -0.179 | 0.205 | 0.893 | 0.778 | 0.0 |
| MCS | N=3  Eating disorder (1)  Insomnia (1)  Multi (1) | 479 | -0.008 | -0.187 | 0.172 | 0.933 | 0.563 | 0.0 |
| Patient satisfaction Scale Score | N=2  Depressive disorders (1)  PTSD (1) | 179 | -0.291 | -1.467 | 0.884 | 0.627 | **0.001** | **91.2** |
| PCL | N=9  PTSD (8)  Depressive disorders (1) | 813 | -0.009 | -0.147 | 0.129 | 0.901 | 0.789 | 0.0 |
| PCS | N=2  Eating disorder (1)  Insomnia (1) | 193 | 0.031 | -0.251 | 0.314 | 0.828 | 0.636 | 0.0 |
| QLES, QoL Scale Score, QWB, or SF-36 | N=3  Depressive disorders (2)  Multi (1) | 402 | -0.254 | -0.665 | 0.157 | 0.226 | **0.0499** | **66.6** |
| SDP (Communication quality) | N=2  Depressive disorders (1)  PTSD (1) | 261 | 0.243 | -0.206 | 0.691 | 0.288 | 0.233 | 29.7 |
| SDP (Group comfort) | N=2  Depressive disorders (1)  PTSD (1) | 262 | 0.230 | -0.430 | 0.891 | 0.494 | 0.126 | 57.3 |
| **SDP** **(Likelihood of referring a friend)** | **N=2**  Depressive disorders (1)  PTSD (1) | **262** | **0.284** | **0.041** | **0.528** | **0.022** | 0.816 | 0.0 |
| SDP (Likelihood of return) | N=2  Depressive disorders (1)  PTSD (1) | 262 | 0.443 | -0.020 | 0.907 | 0.061 | 0.226 | 31.8 |
| **SDP (Overall satisfaction)** | **N=2**  Depressive disorders (1)  PTSD (1) | **262** | **0.329** | **0.085** | **0.573** | **0.008** | 0.844 | 0.0 |
| SDP (Personal comfort) | N=2  Depressive disorders (1)  PTSD (1) | 262 | 0.571 | -0.858 | 1.999 | 0.434 | **0.004** | **88.1** |
| SDP (Willingness to drive to same-room treatment) | N=2  Depressive disorders (1)  PTSD (1) | 262 | 0.083 | -0.159 | 0.326 | 0.501 | 0.835 | 0.0 |
| SDP (Willingness to drive to telepsychiatry treatment) | N=2  Depressive disorders (1)  PTSD (1) | 261 | -0.086 | -0.329 | 0.157 | 0.489 | 0.689 | 0.0 |
| Treatment credibility | N=3  Depressive disorders (1)  Multi (1)  PTSD (1) | 286 | -0.105 | -0.338 | 0.127 | 0.373 | 0.997 | 0.0 |
| WAI-C | N=4  GAD (1)  Multi (1)  OCD (1)  PTSD (1) | 284 | -0.116 | -0.493 | 0.262 | 0.547 | 0.110 | 50.4 |
| WAI-T | N=4  GAD (1)  Multi (1)  OCD (1)  PTSD (1) | 285 | 0.026 | -0.207 | 0.259 | 0.826 | 0.856 | 0.0 |

**Notes:**

Significant results are in bold.

**Abbreviations:**

ATQ=automatic thoughts questionnaire,

BSI=Beck scale for suicide ideation,

CAPS=Clinician-Administered PTSD Scale, CBCL=child behavior checklist, CGAS=children’s global assessment scale, CGI-S=clinical global impressions-severity, CI=confidence interval, C-MMSE=Cantonese version of mini-mental state examination, CPOSS=Charleston psychiatric outpatient satisfaction scale, C-RBMT=Cantonese version of Rivermead behavioural memory test, CSQ=cognitive skills quotient, CY-BOCS=Children’s Yale-Brown obsessive-compulsive scale

DASS=depression anxiety and stress scale, DBAS-16=16-item Dysfunctional Beliefs and Attitudes About Sleep scale,

ECBI=Eyberg child behavior inventory, EDE=eating disorder examination

GSI=global severity index, GTAS=group therapy alliance scale,

HAQ=helping alliance questionnaire, HSQ-ASD=home situation questionnaire-ASD Version, HSQ-ASD DS=HSQ-ASD demand-specific, HSQ-ASD SI=HSQ-ASD social inflexibility

IASMHS=the inventory of attitudes toward seeking mental health services,

MCS=SF-12, mental health component scores, MFI General=general fatigue subscale of the multidimensional fatigue inventory,

NAS-T=Novaco anger scale total score

OCD-CSR=obsessive compulsive disorder clinical severity rating

P-CDI=parent–child dysfunctional interaction, PCL=PTSD check list, PCS=SF-12, physical component scores, PSI/SF=parental stress index/short form, PSI/SF DC=PSI/SF difficult child, PSI/SF PD=PSI/SF parental distress, PTQ=parent tic questionnaire, PTSD=post-traumatic stress disorder

QLES= quality of life enjoyment and satisfaction scale, QoL=quality of life, QWB=quality of well-being scale,

RBMT=Rivermead behavioural memory test

SCL-90=the 90-item Symptom Checklist, SDP=service delivery perception, SDS=Sheehan disability scale, SE=sleep efficiency, SF-36=The 36-item short form survey, SL=sleep latency, SMD=standardized mean difference, STAXI=state-trait anger expression inventory

TST=total sleep time

WAI=working alliance inventory-short version, WAI-C=WAI-clients’, WAI-T=WAI-therapists’, WASO=wake after sleep onset, WHODAS=world health organization disability, assessment schedule, WSAS=work and social adjustment scale,

YGTTS=Yale global tic severity scale

**Table S3. Subgroup analysis of primary outcome measure (change in the standard symptom scale scores used for each disease)**

| **Variables** | **Subgroup** | **# of Studies** | **# of participants** | **SMD** | **95% CI** | | ***p* value** | **Heterogeneity** | | **Between group**  ***p* value** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lower limit** | **Upper limit** | ***p* value** | ***I2*** |
| **Depressive disorders** | | | | | | | | | |  |
| Evaluation time point | **Last** | **6** | **561** | **-0.325** | **-0.640** | **-0.011** | **0.043** | **0.006** | **69.7** | — |
| 4w | 1 | 91 | 0.105 | -0.306 | 0.517 | 0.615 | − | − | **0.039** |
| 8w | 2 | 115 | -0.096 | -1.061 | 0.870 | 0.846 | **0.026** | **79.9** |
| 12w | 2 | 197 | 0.050 | -0.228 | 0.329 | 0.723 | 0.588 | 0.0 |
| 24-26w | 4 | 461 | -0.251 | -0.553 | 0.051 | 0.103 | **0.045** | **62.6** |
| **36w** | **1** | **119** | **-0.388** | **-0.749** | **-0.027** | **0.035** | − | − |
| **52w** | **1** | **85** | **-0.717** | **-1.157** | **-0.278** | **0.001** | − | − |
| Publication year | 2000-2009 | 2 | 147 | -0.185 | -0.918 | 0.548 | 0.621 | 0.075 | 68.5 | 0.604 |
| **2010 or later** | **4** | **414** | **-0.399** | **-0.742** | **-0.056** | **0.023** | **0.029** | **66.7** |
| Country | **Brazil** | **1** | **85** | **-0.717** | **-1.157** | **-0.278** | **0.001** | − | − | 0.094 |
| US | 5 | 476 | -0.246 | -0.581 | 0.090 | 0.151 | **0.013** | **68.3** |
| **Post-traumatic stress disorder** | | | | | | | | | |  |
| Evaluation time point | Last | 10 | 948 | -0.023 | -0.150 | 0.105 | 0.728 | 0.911 | 0.0 | — |
| 1w | 1 | 201 | -0.007 | -0.283 | 0.270 | 0.961 | − | − | 0.971 |
| 6w | 2 | 225 | -0.047 | -0.547 | 0.453 | 0.853 | 0.059 | 72.1 |
| 8w | 1 | 31 | -0.263 | -0.979 | 0.453 | 0.472 | − | − |
| 10w | 2 | 183 | 0.075 | -0.225 | 0.375 | 0.623 | 0.307 | 4.3 |
| 12w | 7 | 810 | 0.005 | -0.180 | 0.189 | 0.958 | 0.123 | 40.3 |
| 14w | 1 | 15 | 0.356 | -0.685 | 1.397 | 0.502 | − | − |
| 24-26w | 4 | 473 | -0.074 | -0.254 | 0.107 | 0.424 | 0.766 | 0.0 |
| 52w | 1 | 201 | -0.039 | -0.316 | 0.238 | 0.782 | − | − |
| Publication year | 2000-2009 | 1 | 15 | 0.356 | -0.685 | 1.397 | 0.502 | − | − | 0.472 |
| 2010 or later | 9 | 933 | -0.028 | -0.157 | 0.100 | 0.665 | 0.901 | 0.0 |
| Country | US | 10 | 948 | -0.023 | -0.150 | 0.105 | 0.728 | 0.911 | 0.0 | — |
| **Two or more diagnoses included** | | | | | | | | | |  |
| Evaluation time point | Last | 3 | 432 | 0.001 | -0.188 | 0.190 | 0.993 | 0.516 | 0.0 | — |
| 12w | 1 | 23 | -0.559 | -1.399 | 0.282 | 0.193 | − | − | 0.400 |
| 16w | 1 | 286 | 0.032 | -0.200 | 0.264 | 0.788 | − | − |
| 18w | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − |
| 24-26w | 1 | 130 | 0.000 | -0.344 | 0.344 | 1.000 | − | − |
| Publication year | 2000-2009 | 2 | 416 | 0.022 | -0.170 | 0.214 | 0.824 | 0.881 | 0.0 | 0.254 |
| 2010 or later | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − |
| Country | Australia | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − | 0.516 |
| Canada | 1 | 286 | 0.032 | -0.200 | 0.264 | 0.788 | − | − |
| Spain | 1 | 130 | 0.000 | -0.344 | 0.344 | 1.000 | − | − |
| **All studies on all diagnoses** | | | | | | | | | | |
| Evaluation time point | Last | 26 | 2,290 | -0.064 | -0.173 | 0.045 | 0.248 | 0.039 | 35.4 | — |
| 1w | 1 | 201 | -0.007 | -0.283 | 0.270 | 0.961 | − | − | 0.541 |
| 4w | 1 | 91 | 0.105 | -0.306 | 0.517 | 0.615 | − | − |
| 6w | 4 | 375 | 0.053 | -0.209 | 0.314 | 0.693 | 0.207 | 34.2 |
| 8w | 3 | 146 | -0.121 | -0.736 | 0.494 | 0.700 | 0.054 | 65.6 |
| 10w | 3 | 201 | 0.058 | -0.219 | 0.335 | 0.682 | 0.533 | 0.0 |
| 12w | 13 | 1,282 | 0.040 | -0.087 | 0.167 | 0.535 | 0.222 | 22.0 |
| 14w | 2 | 37 | 0.220 | -0.432 | 0.872 | 0.508 | 0.743 | 0.0 |
| 16w | 2 | 302 | 0.016 | -0.210 | 0.242 | 0.890 | 0.557 | 0.0 |
| 18w | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − |
| 24-26w | 11 | 1,123 | -0.122 | -0.260 | 0.016 | 0.083 | 0.204 | 25.2 |
| **36w** | **1** | **119** | **-0.388** | **-0.749** | **-0.027** | **0.035** | − | − |
| 52w | 3 | 414 | -0.113 | -0.655 | 0.428 | 0.682 | **0.001** | **86.1** |
| Publication year | 2000-2009 | 7 | 728 | 0.087 | -0.077 | 0.251 | 0.298 | 0.335 | 12.3 | **0.048** |
| 2010- | 19 | 1,562 | -0.122 | -0.249 | 0.004 | 0.058 | 0.088 | 32.2 |
| Country | Australia | 1 | 16 | -0.575 | -1.583 | 0.432 | 0.263 | − | − | 0.056 |
| **Brazil** | **1** | **85** | **-0.717** | **-1.157** | **-0.278** | **0.001** | − | − |
| Canada | 1 | 286 | 0.032 | -0.200 | 0.264 | 0.788 | − | − |
| Hong Kong | 1 | 22 | 0.197 | -0.641 | 1.034 | 0.645 | − | − |
| Spain | 1 | 130 | 0.000 | -0.344 | 0.344 | 1.000 | − | − |
| US | 21 | 1,751 | -0.043 | -0.159 | 0.073 | 0.469 | 0.112 | 28.3 |

**Notes:**

Significant results are in bold.SMD values lower than 0 indicate that telepsychiatry is advantageous over face-to-face.

The results of the subgroup analyses are not shown for diseases for which the primary outcome has been reported in only one study (autism spectrum disorder, chronic tic disorders, obsessive compulsive disorder, bulimia nervosa, insomnia, disruptive behavior disorders, substance abuse, and mild cognitive impairments).

**Abbreviations:**

CI=confidence interval, SMD=standardized mean difference

**Table S4. Results of meta-regression analysis for primary outcome**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Covariant** | **N** | **Coefficient** | **95% CI** | | ***p* value** |
| **Lower limit** | **Upper limit** |
| Publication year | 26 | -0.009 | -0.032 | 0.015 | 0.464 |
| Mean age | 22 | -0.001 | -0.01 | 0.009 | 0.890 |
| % Male | 24 | 0.002 | -0.001 | 0.005 | 0.252 |
| Sample size | 26 | 0.000 | -0.001 | 0.001 | 0.764 |
| Trial duration | 26 | -0.003 | -0.011 | 0.005 | 0.434 |

**Table S5. Subgroup analysis of primary outcome measure in depressive symptoms by baseline severity**

| **Variables** | **Subgroup** | **# of Studies** | **# of participants** | **SMD** | **95% CI** | | ***p* value** | **Heterogeneity** | | **Between group**  ***p* value** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lower limit** | **Upper limit** | ***p* value** | ***I2*** |
| Severity | Mild or Not reported | 3 | 191 | -0.382 | -0.992 | 0.229 | 0.221 | **0.018** | **75.1** | 0.809 |
| Moderate or Higher | 3 | 370 | -0.290 | -0.711 | 0.130 | 0.176 | **0.015** | **76.2** |

**Abbreviations:**

CI=confidence interval, SMD=standardized mean difference

**Table S6. Risk of bias summary**

| ***Study***  ***publication year*** | ***Random sequence generation*** | ***Allocation concealment*** | ***Blinding of participants and personnel*** | ***Blinding of outcome assessment*** | ***Incomplete outcome data addressed*** | ***Selective reporting*** | ***Other sources of bias*** | ***Number of low-risk ratings*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Acierno 2016 | ― | ― | ＋ | ― | ＋ | ― | ― | 5 |
| Acierno 2017 | ＋ | ＋ | ＋ | ― | ― | ＋ | ― | 3 |
| Arnedt 2021 | ― | ― | ＋ | ＋ | ― | ― | ― | 5 |
| Choi 2014a | ＋ | ＋ | ＋ | ＋ | ― | ＋ | ― | 2 |
| Choi 2014b | ― | ＋ | ＋ | ＋ | ― | ＋ | ― | 3 |
| Comer 2017 a | ― | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 2 |
| Comer 2017 b | ＋ | ＋ | ＋ | ― | ― | ＋ | ― | 3 |
| De Las Cuevas 2006 | ＋ | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 1 |
| Egede 2015,  Egede 2016 | ― | ― | ＋ | ＋ | ― | ― | ― | 5 |
| Frueh 2007 | ― | ＋ | ＋ | ＋ | ― | ＋ | ― | 3 |
| Haghnia 2019 | ＋ | ＋ | ＋ | ＋ | ＋ | ― | ― | 2 |
| Himle 2012 | ＋ | ＋ | ＋ | ＋ | ― | ＋ | ― | 2 |
| Hungerbuehler 2016 | ＋ | ＋ | ＋ | ― | ― | ― | ― | 4 |
| King 2014 | ＋ | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 1 |
| Liu 2020 | ＋ | ＋ | ＋ | ― | ― | ＋ | ― | 3 |
| Luxton 2016 | ― | ＋ | ＋ | ＋ | ＋ | ― | ― | 3 |
| Maieritsch 2016 | ― | ＋ | ＋ | ＋ | ― | ＋ | ― | 3 |
| Mitchell 2008,  Ertelt 2011 | ― | ― | ＋ | ― | ― | ＋ | ― | 5 |
| Moreno 2012 | ＋ | ＋ | ＋ | ― | ― | ＋ | ― | 3 |
| Morland 2010,  Greene 2010 | ＋ | ＋ | ＋ | ＋ | ― | ― | ― | 3 |
| Morland 2014 | ＋ | ＋ | ＋ | ― | ― | ― | ― | 4 |
| Morland 2015 | ＋ | ＋ | ＋ | ― | ― | ― | ― | 4 |
| Mosca 2020 | ― | ＋ | ＋ | ＋ | ― | ― | ― | 4 |
| Nelson 2003 | ＋ | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 1 |
| O'Reilly 2007 | ― | ＋ | ＋ | ＋ | ― | ＋ | ― | 3 |
| Poon 2005 | ＋ | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 1 |
| Ruskin 2004 | ― | ＋ | ＋ | ＋ | ― | ＋ | ― | 3 |
| Shulman 2017 | ＋ | ＋ | ＋ | ＋ | ― | ＋ | ＋ | 1 |
| Strachan 2012 | ＋ | ＋ | ＋ | ― | ― | ＋ | ― | 3 |
| Stubbings 2013 | ― | ＋ | ＋ | ＋ | ― | ― | ― | 4 |
| Watts 2020 | ＋ | ＋ | ＋ | ＋ | ― | ＋ | ― | 2 |
| Yuen 2015 | ＋ | ＋ | ＋ | ＋ | ＋ | ＋ | ― | 1 |

**Notes:**

Risk of bias summary: review authors' judgements for risk of each bias item for each included study

(“-”: low risk of bias; “+“: high risk of bias)

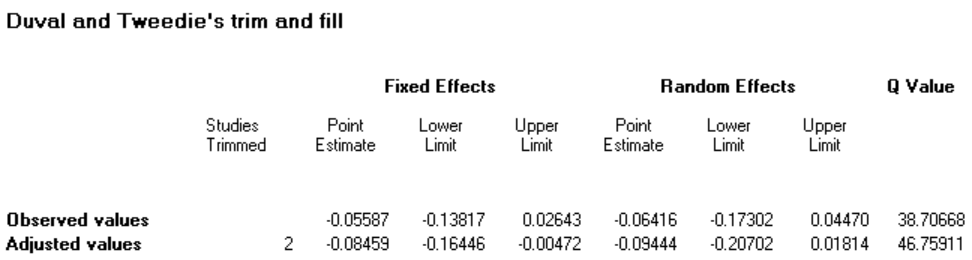
**Table S7. Results of meta-regression analysis for all-cause discontinuation on trial duration**

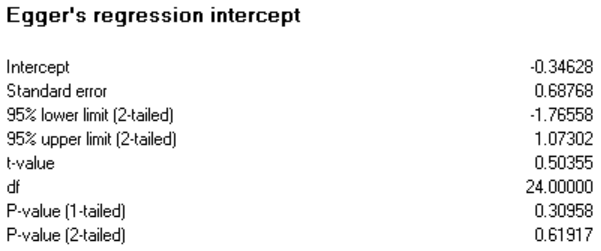
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Diagnosis** | **N** | **Coefficient** | **95% CI** | | ***p* value** |
| **Lower limit** | **Upper limit** |
| All | 27 | -0.006 | -0.013 | 0.002 | 0.129 |
| Depressive disorders | 6 | -0.007 | -0.024 | 0.010 | 0.425 |
| PTSD | 10 | -0.002 | -0.019 | 0.015 | 0.802 |

**Abbreviations:** CI=confidence interval, N=number of trials, PTSD= post-traumatic stress disorder

**Figure S1 (A). Funnel plot analysis of primary outcome (change in the standard symptom scale scores used for each disease), combining all studies for all diagnoses**

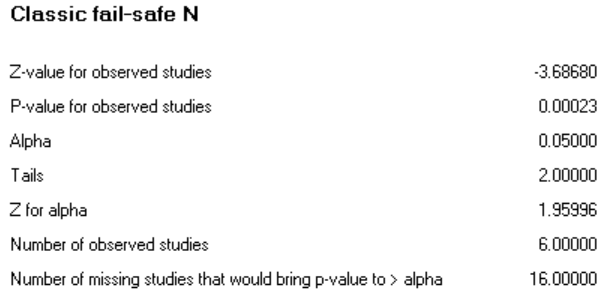


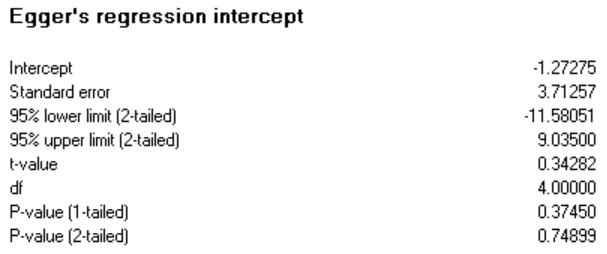




**(B) Funnel plot analysis for primary outcome (change in the standard symptom scale scores used for each disease), depressive disorders**

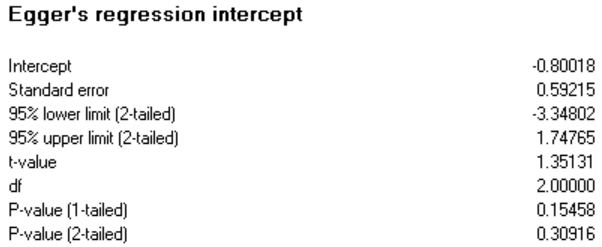






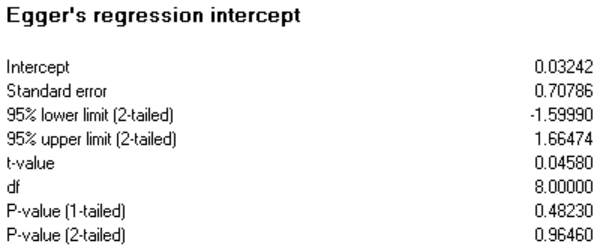
**(C) Funnel plot analysis for Primary outcome (change in the standard symptom scale scores used for each disease), two or more diagnoses included**





**(D) Funnel plot analysis for primary outcome (change in the standard symptom scale scores used for each disease), post-traumatic stress disorder**





**Figure S2 (A). Risk of all-cause discontinuation (Overall)**



**Figure S2 (B). Risk of all-cause discontinuation (Depressive disorders)**



**Figure S2 (C). Risk of all-cause discontinuation (PTSD)**



**Abbreviations:** PTSD= post-traumatic stress disorder

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