Appendix A

Table A.1 Search Criteria Used for Article Screening on PubMed, Embase, MEDLINE, and Web of Science Databases

Database	**Search Terms**
PubMed	("Telemedicine"[Mesh] OR Ehealth[Text Word] OR Telehealth[Text Word]) AND ("Therapeutics/psychology"[Mesh] OR "Mental Health Services"[Mesh]) AND ("Mental Disorders/psychology"[Mesh] OR "Mental Disorders/therapy"[Mesh] OR "Mental Health"[Mesh])
Ovid Embase	(telemedicine/) OR (telepsychology/) OR (telerehabilitation/) OR (teletherapy/) OR (telehealth/) OR (eHealth.tw,kf.) OR (virtual adj3 therapy*.tw,kf.)) AND ((mental health service/) OR (psychotherapy*.tw,kf.) OR (therapeutic adj3 approaches*.tw,kf.)) AND ((mental disease/di, pc, rh, th) OR (mental health disorder*.tw,kf.) OR (mental adj3 illness*.tw,kf.) OR (mental disorders/) OR (anxiety disorders/) OR ("bipolar and related disorders"/) OR ("feeding and eating disorders"/) OR (mood disorders/) OR (personality disorders/) OR ("schizophrenia spectrum and other psychotic disorders"/) OR (substance-related disorders/) OR ("trauma and stressor related disorders"/))
Ovid MEDLINE	((telemedicine/) OR (telepsychology/) OR (telerehabilitation/) OR (teletherapy/) OR (telehealth/) OR (eHealth.tw,kf.) OR (virtual adj3 therapy*.tw,kf.)) AND ((mental health service/) OR (psychotherapy*.tw,kf.) OR (therapeutic adj3 approaches*.tw,kf.)) AND ((mental adj3 illness*.tw,kf.) OR (mental disorders/) OR (anxiety disorders/) OR ("bipolar and related disorders"/) OR ("feeding and eating disorders"/) OR (mood disorders/) OR (personality disorders/) OR ("schizophrenia spectrum and other psychotic disorders"/) OR (substance-related disorders/) OR ("trauma and stressor related disorders"/))
Web of Science Core Collection and MEDLINE	((TS=(telemedicine*)) OR (TS=(telepsychology)) OR (TS=("eHealth" OR "e-Health")) OR (TS=(virtual NEAR/3 therapy*))) AND ((TS=(mental health service*)) OR (TS=(psychotherapy*))) AND ((TS=(mental disorder*)) OR (TS=(mental illness)))

Table A.2 Demographics Information, Telepsychiatric Intervention, and Summarized Results of Included Studies

ID	Telepsychiatric Delivery	Demographic	Results
Acierno et al., 2016 [5]	Videoconferencing	232 Veterans with PTSD / MD	Both treatment modalities saw improvements in overall mental health functioning, particularly with PTSD. Outcomes of HBT treatments for PTSD are slightly more effective, but differences are insignificant. PCL scores (PTSD symptoms) for HBT relative to IP treatment are -0.87 on average, while BDI scores (MD symptoms) are 0.59 on average across all follow-up measures.
Acierno et al., 202 [6]	Videoconferencing	136 Women veterans with military sexual trauma (MST) related PTSD	There are no systematic differences between HBT and IP treatment for PTSD and depression overall. However, the dosage of prolonged exposure (PE) is related to reduced PTSD symptom severity. Although HBT was expected to reduce barriers to treatment and receive a higher dosage, there were no statistically significant differences. Pre-post treatment differences for PTSD symptoms were large (over 1.5SD from baseline). On average, PTSD symptom severity decreased over time during treatment. There are no significant differences between IP and HBT delivery of PE on PTSD symptoms at post-treatment assessment. Depressive symptoms for both IP and HBT delivery decreased over time during treatment. In the intent-to-treat sample, HBT delivery was associated with more depressive symptoms, but there are no such differences in the completer sample.
Acierno et al., 2017 [7]	Videoconferencing	132 Veterans who met criteria for PTSD	Both PCL (PTSD symptoms) and BDI (depressive symptoms) scores indicate that there are similar rates of improvement for BDI and PCL delivered IP or via HBT. There are also no significant treatment differences in outcomes at the primary post, 3-month, and 6-month follow-ups.

ID	Telepsychiatric Delivery	Demographic	Results
Ben-Zeev et al., 2018 [8]	Mobile App (mHealth)	163 adult (>18 years) clients with long-term mental illness (SZ, BP, MD)	The mHealth intervention had significantly more patient engagement compared to clinic-based treatment but had similar patient satisfaction and clinical outcomes otherwise. Engagement: Smartphone-delivered interventions ("FOCUS") group participants were more likely to engage in treatment for at least 8 weeks (56% vs. 40%). There are no differences in the proportion of participants fully engaging in all weeks. Satisfaction: Patient self-assessments of their satisfaction with the treatments indicate that they are similar between both FOCUS and wellness recovery action plan (WRAP) groups (25.7±3.8 vs. 25.5±3.6). Clinical Outcomes: SCL-9 (for general psychopathology) and BDI-II (depression inventory) scores between both groups did not differ, and there are no significant differences in clinical outcomes between different diagnostic groups between baseline and in the 3-month follow-up. Between baseline and the 6-month follow-up, improvements in RAS (recovery assessment) were seen for both FOCUS and WRAP groups (4.56±1.10 vs. 2.86±1.12).
Bistre 2022 et al., [9]	Videoconferencing	38 adult patients admitted to the ER of the Jerusalem Mental Health Center from April-June 2020	Inter-rater agreement on 'recommended disposition' and 'indication for involuntary admission' were both strong to almost perfect. However, complete agreement on diagnoses between FTF and TP were weak, but partial agreement was strong. Overall, the results show similar reliability between both delivery modes for psychiatric assessments.

ID	Telepsychiatric Delivery	Demographic	Results
Chae et al., 2000 [10]	Telemedicine (via telephone network)	30 patients (20-50 years) treated at the Koyang Community Mental Health Center with DSM-4 diagnosed SZ	Correlation coefficient for BPRS total score between the 2 raters were significantly higher for telemedicine (0.82) compared to IP interviews (0.67). Agreement in telemedicine was higher for 8 items, lower for 7 items, and similar for 3 items. *Note: Anxiety reliability is low for telemedicine, possibly due to low bandwidth and limited image processing capability, which makes this delivery mode insufficient for analyzing this specific symptom.
Clarke et al., 2016 [11]	Mobile App (mHealth)	89 volunteers with Type 1 (n=34) or Type 2 (n=55) diabetes with at least mild depressive symptoms.	Immediate postintervention outcomes saw a consistent improvement for depressive ad anxiety symptoms, mental health self-efficacy, work and social functioning. At postintervention and follow-up, within-group effect sizes were between moderate and large, indicating that the volunteers saw slight further improvements. Overall outcomes saw significant improvements in depressive symptoms in people with diabetes, with a large effect size at postintervention (1.27) that is maintained for 3 months.
Dennis et al., 2020 [12]	Telemedicine (via telephone network)	241 English-speaking, clinically depressed women between 2-24 weeks postpartum who were not on antidepressants or antipsychotics, not receiving psychotherapy, not actively suicidal, nor suffering from chronic depression.	Women in the intervention group met significantly less depression criteria at 12-week post randomization (immediately postintervention) than the control group: 10.6% of those in the intervention group had a diagnosis of clinical depression, compared to 35% in the controls. Significant group differences were sustained at 24 weeks post randomization (3 months postintervention). *At 36 weeks, no significant differences were found (10.9% vs. 15.6% in intervention and control group). The intervention group is 4.5 times less likely to be depressed, and attachment avoidance decreased more. The study thus concludes that nurse-delivered telehealth is an effective treatment for urban and rural women with postpartum depression.

ID	Telepsychiatric Delivery	Demographic	Results
D'Souza et al., 2000 [13]	Videoconferencing	7094 suicidal veterans receiving clinical video telehealth online or mental health services in-person whose data are in medical records.	Veterans who received in-person treatment were more likely to have a suicide behavioural report (SBR) 6 months prior to their first MH appointment (2.4% vs. 1%) only. 12 months after their first MH appointment, 2.1% the in-person group received a SBR compared to the 1.9% from the intervention group, which is not statistically significant. There are also no differences in the mean days between the first MH appointment to a SBR, when comparing the control and intervention groups.
Germain et al., 2009 [14]	Videoconferencing	48 adults with PTSD eligible for CBT for 16 to 25 weeks.	81% of the participants in the videoconferencing group and 75% of those in the control group no longer met PTSD diagnostic criteria postintervention. No significant differences were observed between the two values over time. The results between the 2 groups also do not reveal significant differences, but there was a significant overall effect. An assessment of overall functioning also found that there is an identical mean overall functioning index.
Gros et al., 2018 [15]	Video Telehealth (prolonged exposure)	67 veterans (20-75 years) with PTSD recruited primarily through referrals at a southeastern VA medical center.	Results demonstrated a significant effect of telehealth intervention on participant willingness to drive further for telehealth services with PE, compared to participants in the in-person section. There were no other significant group differences in satisfaction and perception.
King et al., 2020 [16]	Videoconferencing	51 undergraduates from a large Midwestern university who signed up for the study for extra credit, and who indicated that they engaged in heavy episodic drinking within 2 weeks before recruitment.	After controlling for other variables, FTF vs. videoconferencing treatments did not differ at 1 month posttreatment. Changes from baseline to 1 month also did not differ from changes from 1 month to 3 months. Both groups experienced significantly reduced alcohol consumption, and both saw increased satisfaction overall between the 2 sessions.

ID	Telepsychiatric Delivery	Demographic	Results
Kopel et al., 2001 [17]	Videoconferencing	136 children and adolescence living in rural NSW, with written consent from parents / carers.	95% of the young people and/or their parents rated their service as excellent or good, 97% reported that they were mostly or very satisfied with the amount of help received, and 80% reported that it would be inconvenient or very inconvenient to attend FTF interviews, as opposed to video conferencing.
Kramer et al., 2021 [18]	Web-Based Intervention (online CBT modules)	136 Depressive patients recruited from waiting lists of outpatient clinics and had depressive symptoms above the cut-off in the screening questionnaire.	Depressive symptoms improved very significantly over 5 months. Those assigned to the eHealth group improved significantly more than the controls, and the mean difference of depressive symptoms between the groups correspond to a medium between-group effect. Significantly more participant in the eHealth group achieved symptom remissions. No significant differences were found between the groups' physical quality of life, attitudes, or motivation for psychotherapy.
Milosevic et al., 2022 [19]	Videoconferencing	413 Adult outpatients of an anxiety clinic who attended a CBT group (for PD / agoraphobia / SAD / GAD / OCD) delivered either FTF or online. All participants had a primary diagnosis of a DSM-5 anxiety or related disorder, SAD, GAD, or OCD.	Treatment dropout rates did not differ significantly between both groups, though it should be noted that significantly more individuals attended sessions delivered via videoconferencing. In general and for GAD*, there was a small but significant positive effect in FTF treatment on reduction in symptoms, compared to videoconferencing and regardless of baseline severity. The same effect was not significant for SAD, PDA, and OCD. Effect sizes for treatment were mostly comparable between FTD and videoconferencing, with videoconferencing having slightly lower effects for the full sample, GAD, PDA, and SAD, but not OCD. All groups showed significant improved functional impairment over the course of the treatment, with no significant differences between groups.

ID	Telepsychiatric Delivery	Demographic	Results
Mitchell et al., 2008 [20]	Telemedicine (via telephone network)	128 participants meeting DSM-4 requirements for bullimia nervosa (BN) or eating disorder, whose body weight was not less than 85% of their ideal weight.	Abstinence rates from binge eating, purging, and combined were slightly higher for the IP group, but this does not hold for objective binge eating at the 3- and 12-month follow-ups as well as objective binge eating + purging at the 12 month follow-up. None of the differences in abstinence rates approached statistical significance. Overall, participants in the IP group report significantly lower levels for both binge eating and purging. Responses in the IP group occurred more rapidly compared to the online group. Purging frequency at the 12-month follow-up for the IP group was significantly lower. No differences were found between the groups in the frequency of binge eating episodes.
Morland et al., 2015 [21]	Videoconferencing	126 Women civilians and veterans currently diagnosed with PTSD and, if on medication, on stable psychotropic medication for a minimum of 45 days prior to study entry.	At posttreatment, participants reported high levels of satisfaction with services. There was a statistically significant difference between IP and videoconferencing groups, in that IP women reported scores of 4.3 points higher (out of 79) than the intervention group. Both treatment conditions saw mean changes in the negatives for CAPS scores at all time points, indicating improvements in PTSD symptoms. PTSD symptoms in the videoconferencing condition were also noninferior to the IP condition. Civilians' posttreatment CAPS (PTSD scale) were lower than veterans' scores across the board (posttreatment, 3-month, 6 month follow-ups). Civilians demonstrated significant reductions in CAPS scores at all measurements, but veterans did not have any significant reduction in CAPS at any time point.

ID	Telepsychiatric Delivery	Demographic	Results
Myers et al., 2015 [22]	Videoconferencing	233 children (5.5-12 years) meeting diagnostic criteria for ADHD referred by healthcare providers in 7 communities.	Overall, caregivers and teachers rated improvements in ADHD-related symptoms across the 25 week follow-up period. At baseline, scores on ADHD severity, impairment, and functioning were comparable between both groups. *Caregiver-Rated Outcomes: Tests of overall differences indicate that children in the telehealth delivery group had significantly greater improvement from baseline to follow-up assessments on the Vanderbilt ADHD Rating Scale (VADRS) and Columbia Impairment Scale-Parent Version (CIS-P), on inattention, hyperactivity / impulsivity, combined ADHD, and ODD. Functional improvements were also significantly greater from baseline to follow-up assessments in the telehealth delivery group. *Teacher-Rated Outcomes: ADHD rating scores demonstrated significantly greater improvements at least once for hyperactivity and total ADHD in the telehealth group, but no difference in outcomes between inattention and ODD. While both groups improved, scores did not differ significantly between the 2 groups otherwise.
Steiger et al., 2022 [23]	Videoconferencing	125 Adults treated in-person and online over the course of 10-14 weeks, receiving comparable treatments. Participants were included if they were diagnosed with anorexia nervosa, bulimia nervosa, other feeding or eating disorders, or avoidant food intake disorder, and had a BMI below 30.	People in the IP condition received more treatment sessions on average, but there were no between-group differences in the percentage of sessions attended. There was a significant increase in BMI and eating symptoms over time in both groups, with no difference associated with in-person or virtual therapy. Participants in both groups reported comparable satisfaction, and those in the virtual group generally reported positive experiences with no evidence of adverse experiences related to concerns about confidentiality or online security.

ID	Telepsychiatric Delivery	Demographic	Results
Stewart et al., 2017 [24]	Videoconferencing	15 Trauma-exposed youth (7-15 years) referred for treatment at a trauma treatment center in Southeastern US. All children met criteria for PTSD or adjustment disorder according to DSM-4 and displayed significant symptoms of post-traumatic stress. All children and their families had to have at least one barrier to accessing treatment in person (rural location, work schedule, limited English proficiency, etc.).	An average of 14.13 treatment sessions were completed, ranging from 45 to 90 minutes in length. All youth had caregivers who actively participated in treatment on a regular basis. The difference in pre and post treatment scores from both self-report and parent scores indicate clinically and statistically significant PTSD symptoms, SCARED (anxiety-related), SMFQ (mood) scores. Caregivers of the children were satisfied with telehealth 100% of the time, and 86% indicated that it was easy to use.
Tutty et al., 2010 [25]	Telemedicine (via telephone network)	30 Adults initiating psychotherapy for depression at a mental health clinic, who did not have psychotherapy visits to a specialty health provider within the past 30 days and were not on antidepressants within the last 180 days.	69% of CBT-TT patients were "very satisfied" with treatment at the 6-month follow-up. On average, the participants' depression severity decreased by 1.2 SCL (moved from "severe-moderate" to "moderate-mild") at 3 months, and 0.49 at 6 months. Both 3- and 6-month follow-up improvements were significant. The proportion of participants not meeting DSM-4 criteria for depressive disorder at 3 months posttreatment was 23.3%, and 50% at 6 months. 42% of the sample was considered as recovered. The findings suggest that CBT-TT is feasible for treating adult depression.

ID	Telepsychiatric Delivery	Demographic	Results
VanHuysse et al., 2023 [26]	Videoconferencing	102 Patients (9-23 years) primarily diagnosed with anorexia nervosa or atypical anorexia, below their expected body weight (EBW <95%) upon enrollment, experiencing moderate to severe eating disorder symptoms with functional impairment, have a caregiver available to participate in the treatment process, had an unsuccessful trial of treatment, and / or suggested that outpatient treatment would be unsafe, unsuccessful, or inaccessible.	Baseline percent expected body weight (%EBW) is a significant predictor of outcome, with those starting with higher %EBW more likely to have a higher %EBW at follow-up. Age is also a significant predictor, with older participants experiencing lower %EBW at the 6-month follow-up. Results indicate high rates of medical hospitalization prior to treatment, with a significantly greater proportion of online patients hospitalized compared to IP patients. Rates of admissions were similar pre and post treatment. Both treatment groups improved on %EBW, and group differences are insignificant.
Wierwille et al., 2016 [27]	Videoconferencing	221 Veterans who met criteria for PTSD according to DSM-4-TR, presenting to telehealth and outpatient PTSD clinics.	The telehealth group had a statistically insignificant 13% numerically higher dropout rate than the outpatient group. PCL-S (for PTSD) scores decreased significantly pre to posttreatment for both groups, and there was a greater decrease in scores in the outpatient group, but differences are not statistically significant. BDI-II (for depression) scores have a similar pattern, with a greater decrease in scores in the outpatient group.

ID	Telepsychiatric Delivery	Demographic	Results
Yuen et al., 2015 [28]	Videoconferencing	54 Veterans (20-75 years) with combat-related PTSD recruited via referrals and advertisements meeting criteria for PTSD (from DSM-4-TR), without active substance dependence within the past 6 months, active psychotic disorder, or severe suicidal ideation.	Overall, symptoms of PTSD, depression, and anxiety decreased in both groups. Posttreatment diagnoses for PTSD were similar for both conditions. CAPS (PTSD diagnosis), PCL (PTSD severity), BDI (depression severity), and BAI (anxiety) scores significantly decreased from pre to posttreatment in both groups. Satisfaction ratings were high for both conditions. Differences were not statistically significant but: (1) 90.5% of the IP condition reported being "very comfortable" or "comfortable", whereas 76.5% of the eHealth condition reported this level of comfort. (2) 85.7% of the IP condition reported they were ""likely"" or ""highly likely"" to use this type of treatment again, compared to 76.9% of the eHealth condition.
Zimmerman et al., 2022 [29]	Videoconferencing	64 Patients with borderline personality disorder (BPD).	Patients in the eHealth group had significantly lower scores on coping sub-scores on RDQ-M. There are no other significant differences. Under both treatment modalities, patients significantly improved from admission to discharge on each RDQ-M subscales, with large effect sizes for most of the subscales. The eHealth program also reported significantly greater improvement in functioning. Most patients in the eHealth and IP groups indicated they were "very satisfied" or "extremely satisfied" with the initial evaluation. The majority were hopeful they would get better in both groups. After treatment, more than 95% of the patients in both groups indicated they were "very satisfied" or "extremely satisfied" with treatment.