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Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

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Abstract

Objectives

Amid the COVID-19 pandemic, virtual care gained prominence, especially for mental health services. This study rapidly reviewed existing recommendations for virtual mental health services aligned with the Quadruple Aim framework: improved patient/provider experiences, reduced costs, and enhanced population health. The review included 40 articles, revealing themes like patient screening, transparent communication, equity, and cost-effectiveness. The findings emphasize the need for comprehensive guidance to facilitate equitable and cost-efficient virtual mental health care.

Design

Systematic rapid review with qualitative content analysis of data from included manuscripts.

Setting

The study targeted adults seeking mental health care in ambulatory contexts like primary care, psychology or psychiatry clinics. Geographically, it covered 'high-income' countries as defined by the World Bank.

Interventions

'Virtual care' referred to synchronous patient-provider interactions via virtual mediums like phones or video platforms.

Results

The search yielded 40 articles. Most articles (85%) discussed enhancing patient experiences, 55% addressed provider experiences and population health, and 25% focused on cost reduction. Themes emerged: screening patient for optimal use of virtual care, transparent provider-patient communication, accessibility, supporting equity-seeking populations, cost-effectiveness, virtual care coverage, provider training, and professional boundaries.

Conclusions

The study underscores the need for precise guidance for equitable, effective virtual mental health care. The Quadruple Aim's cost reduction aspect needs attention.

Article summary

Strengths and Limitations of this study (5 bullet points)

- Rapid review of virtual mental health service guidelines.
- Included resources from synchronous high-income settings.
- Data extraction focused on Quadruple Aim alignment.
- Recommendations for patient/provider experience and population health.
- Limitations: Omission of non-English resources, exclusion of asynchronous care.

Keywords:

Virtual Care, Mental Health, Health Services, Telehealth, Psychiatry

MAIN MANUSCRIPT

Introduction

Virtual delivery of ambulatory healthcare became widespread in high income countries after the onset of the COVID-19 pandemic, and its adoption has been sustained, even as guidance recommending its use has evolved. 'Virtual care' can be defined as "any interaction between patients and/or members of their circle of care, occurring remotely, using any forms of communication or information technologies, with the aim of facilitating or maximizing the quality and effectiveness of patient care"(1). In Canada, there was an overall 56-fold increase in the use of virtual care, comprising 71% of primary care visits in the first months of the COVID-19 pandemic (2). Similarly, in international settings there has been a 38 times increased volume of virtual care in healthcare, when compared with pre-pandemic use (3). Furthermore, this increased volume has persisted, years after the pandemic onset (4).

Although there has been a steady return to in-person care due to vaccination and other public health measures decreasing the risk of severe COVID-19 disease, virtual delivery has become the default modality for many health concerns, particularly mental health. Mental health concerns are common; about 20% of people will have a mental health issue in any given year (5). In most settings, primary care is the first point of access for mental health services, (6) and common mental illnesses such as anxiety and depression are the most frequent conditions for which people seek out primary care services (7, 8). Virtual care has been reported to be as accurate from a diagnostic perspective for simple diagnoses not requiring in-person physical examinations (9) but there is limited evidence about the diagnostic accuracy or effectiveness virtual care delivery related to mental health conditions.

Despite the rapid and sustained proliferation of virtual care across healthcare settings, there has been no attempt to bring together existing recommendations and peer-reviewed guidelines for virtual care delivery of mental health services. The Quadruple Aim is an established health quality framework that includes the following pillars: improving patient and caregiver experiences, reducing costs, supporting population health, and improving provider experiences (10). It has been used in health services research to determine the priorities of different populations within the health care setting (11, 12), but to our knowledge has not been used to understand virtual care recommendations in high-income settings.

Methods

We used rapid review methodology to search for, review, and organize mental health standards from international sources. A rapid review is a form of knowledge synthesis that accelerates the process of conducting a traditional systematic review through streamlining or omitting specific methods to produce evidence for stakeholders in a resource-efficient manner. We chose this over a traditional systematic or scoping review because we wanted to quickly generate evidence that could be used in a policymaking process around developing national standards for virtual delivery of mental health services in Canadian primary care; this manuscript reports results of the first phase of that project (13). We followed Cochrane Methods Rapid Reviews guidance (14) as well as Tricco et al's specific recommendations for conducting rapid reviews related to the COVID-19 pandemic (15). Our rapid literature review was conducted in line with the principles outlined in (16), as there is currently no dedicated reporting checklist specifically tailored for rapid reviews within the existing landscape. In order to uphold a thorough and transparent reporting process, we consciously opted to align our reporting framework with the widely recognized PRISMA guidelines, a framework well-suited to our chosen review methodology. We employed the PRISMA checklist by (17) to ensure all pertinent sections and topics were included and also checklist for the abstract to meticulously encompass all pertinent sections and topics within the manuscript. (Checklist can be found in the supplementary documents as Appendix B and C)

Our overall aim was to identify recommendations for virtual delivery of mental health services to adults in high income countries. Within the literature, virtual mental health care services are referred to using a variety of terms, including but not limited to: telemental health, telepsychiatry and psychiatric telehealth. In this manuscript, we use the term "virtual mental health services", which we define as, " …the use of telecommunications […such as telephones…] or videoconferencing technology to provide mental health services" (18)

We focused on synchronous care, where the patient and provider are meeting in real time (19). We searched for peer-reviewed literature to identify guidance and recommendations for virtual mental health in primary care settings. We did not limit the search regarding specific mental health conditions. References had to make specific recommendations for virtual health care services in ambulatory settings such as psychiatry, family medicine and/or primary care. We intentionally kept the inclusion criteria broad and included resources that did not necessarily relate exclusively to primary care because our initial discussions and preliminary exploration of the literature suggested that we may miss relevant resources if we limited exclusively to primary care. We excluded resources focused exclusively on substance use disorder diagnosis and management. We excluded resources related exclusively to asynchronous care that is self-directed and mobile health (also known as "mhealth") wearable technologies. In line with rapid review methodology we did not conduct a risk of bias assessment of included studies. Detailed inclusion/exclusion criteria are available in Table 1.

Table 1. Inclusion/exclusion criteria for review

Inclusion	Exclusion

• Guideline OR Recommendation • Any mental health condition (other than substance use) • Any study design • Phone visit AND/OR Video visit • Any ambulatory care setting (such as primary care, family medicine, psychiatry, 'virtual emergency department') • Any 'registered healthcare professional' (such as physicians, social workers, nurses, psychologists) • Published in English • January 1, 2010-July 22, 2022 • Adults; populations ≥18 years of age • Developed for use in high income economies and upper middle-income economies (using World Bank list)(20)	• Apps; smartphone apps; mhealth; wearable technology, ehealth • Non-clinician delivered services • Children; < 18 years of age • Addictions (alcohol, tobacco, cannabis, or other substance use; process addictions) • Neurodegenerative disorders; including dementia • Published before January 1, 2010 • Group psychotherapies • Care delivered asynchronously

Our search strategy was developed in collaboration with an information specialist at Unity Health Toronto on our team (CZ). We included English-language articles, from both peer reviewed and grey literature, from any country on the World Bank list identified as high-income countries (17). We started with a systematic formalized database search of seven databases from January 2010 to July 22, 2022: All Medline (via Ovid), PsycINFO (Ovid), Embase (Ovid), Scopus, Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (EBM Reviews Ovid), and CINAHL (EBSCO host). We limited our search to resources published on or after Jan 1, 2010 because we assessed that limiting to this more recent literature would provide insights more likely to be generalizable to contemporary technologies. Our team included clinicians, researchers, people with lived experience of mental illness, from multiple Canadian provinces and the United Kingdom. The information specialist (CZ) performed the database searches (Appendix A), compiled and de-duplicated the results in EndNote.

Article Selection Process

We used Covidence review management software to enable reviewer pairs to screen articles. Title and abstract screening were conducted by two independent reviewers (LL, NE). If an abstract or summary was available, the reviewer conducted a brief full-text screening to assess eligibility. Any disagreement encountered in eligibility was resolved through discussion with a third reviewer (BO). Two independent reviewers (NE, AY) conducted full-text screening of each potentially relevant resource, and disagreements in eligibility were resolved through consensus with a third reviewer (BO).

Data extraction

Once full text articles were identified from the database searches, two team members' extracted data using a data extraction template which was tested and refined through team

discussion and trialled with five previously identified resources. We extracted data related to: author and year, authors' location; specific setting in which the study was conducted/to which the guidelines or recommendations applied; study description; provider type; whether people with lived experience were involved in generation of recommendations; and the text of recommendations or guidance according to aspects of the Quadruple Aim (improving patient experience; improving population health; reducing costs; improving provider experience) (10)

Analysis and synthesis approach

We conducted directed content analysis of data extracted from included manuscripts (21). We used the Quadruple Aim as our initial categorization matrix (22). Two authors (NE and AY) read included manuscripts and extracted excerpts of text from the manuscripts that were related to each aspect of the Quadruple Aim. This was completed independently in parallel, and then three authors (NE, AY, BO) met and reviewed the excerpts together. Then one author (NE) reviewed each excerpt and generated codes from the textual excerpts, and then combined these into subcategories. Then, NE and BO met to review the subcategories and combined them into the 'themes' that are represented in the results section of this manuscript. Throughout this process we discussed the emerging 'themes' at two project meetings, where multiple authors discussed the analysis and proposed slight alterations to the phrases or words used to describe particular phenomena. For example, we replaced 'special populations', a description of a theme related to data extracted under Quadruple Aim 2 ('improving population health') with 'equity-deserving groups' in the first instance and then further modified this to 'marginalized populations'.

Patient and Public Involvement

People with lived experience of mental health concerns were involved in approving the research question and search keywords. Where there was disagreement on whether to include an article, the abstracts were taken to the project advisory group including one person with lived experience.

RESULTS

The primary search strategy identified 2760 records. (Appendix A) Of these, 105 full text articles were screened and 40 articles met the eligibility criteria and were included in the analysis (Figure 1).

Included articles were published mostly in the United States (n=24; 60%) followed by other countries: Canada (n=2, 5%), South Africa (n=2, 5%), United Kingdom (n=2, 5%), China (n=1, 2.5%), Poland (n=1, 2.5%), Australia (n=1, 2.5%) Switzerland (n=1, 2.5), and Qatar (1). 5 articles (12.5%) did not specify a country of origin.

Most articles described the setting to which their recommendations or guidance applied in general terms as 'virtual mental health care' (n=29, 72.5%) or the 'mental health sector' (n=1, 2.5%) A few were more specific about the setting, such as a psychiatry clinic (n=2, 5%), geriatrics clinic (n=1, 2.5%), neuropsychology clinic (n=1, 2.5%), or a prison (n=1, 2.5%). One article described that it was applicable to 'virtual mental health care during COVID-19 outbreaks' (n=1, 2.5%). Two articles were focused on specific populations served by specialized clinics: one for people with bipolar disorder (n=1, 2.5%) and one for deaf patients (n=1, 2.5%).

With respect to the type of healthcare professional to which recommendations or guidance applied, 14 articles described this as for 'clinicians/healthcare professionals' in general (n=14, 35%). Eight articles were for psychologists (n=8, 20%). Four were focused on 'mental health clinicians/practitioners/providers' (10%). Three were for physicians (7.5%) and three for psychiatrists (7.5%). Two articles were for psychotherapists (5%), two for nurse practitioners (5%), and two for primary care providers (5%). One article was for counsellors (2.5%), one for neuropsychologists (2.5%), and one for social workers (2.5%). One article did not have any description of the type of healthcare provider to which it was applicable (2.5%) (in total, this adds to >40 articles because several articles described multiple types of healthcare providers).

Table 2 shows the extracted data from all included studies. None of the included manuscripts reported that they had any patient or caregiver involvement in the development of guidelines or recommendations, so we did not include this in the Table.

Quadruple Aim 1: Improving Patient and Caregiver Experience

34 articles (85%) were found to have information related to Quadruple Aim 1. From data extracted related to this Aim, we identified three themes:

- Screening patients for appropriateness of virtual care (n=30, 75%)
- Emergency contacts (n=5, 12.5%)
- Transparent provider-patient communication (n=8, 20%)

Screening patients for appropriateness of virtual care

22 (52.5%) articles described the importance of, or methods for, assessing before virtual appointments to evaluate whether virtual care is a viable, useful method of care delivery for a patient's particular needs (12-33). (23) For example, one article described the importance of establishing a 'relationship' between healthcare providers and patients to assess virtual care appropriateness (24); another three articles noted that patients generally have a positive view of psychological screening assessments conducted prior to a virtual visit (25-28).

Three articles (7.5%) listed criteria that providers should assess prior to a first virtual visit including: health care services the patient requires, resources available to providers and what is required for sustainable longitudinal care (29-31). One article suggested providers should also

assess how their patients perceive their conditions (32), and four (n=7.5%) recommended asking what patients wish to gain from their appointment(s) (33-36).

Two articles (5%) noted that providers should assess potential risks of using virtual care for each patient, and whether providers and patients have appropriate technology for virtual appointments and patients' cognitive capacity to consent to virtual care (37, 38). Three articles (7.5%) recommended providers should assess if patients have a safe environment to attend a virtual health care appointment (37, 39, 40). One article noted that sensory deficiencies, particularly visual and auditory, can impede patient capacity to engage in videocalls (41). Three articles (7.5%) noted that the most important consideration is whether patients want a virtual appointment or not (33, 42-44).

Emergency contacts

Three articles (7.5%) mentioned the importance of emergency contacts for verifying the patient's location, both to assess whether care could be provided in the context of licensure in that particular jurisdiction(for state licensure requirements) and for having knowledge on where to dispatch emergency services if a crisis were to happen during a virtual appointment (45-47). Two articles (5%) discussed the need for providers to engage in safety planning, such as what to do in case of self-harm, with their patient and document the plan, including emergency contacts, immediately after an initial appointment (48, 49) .

Transparent provider-patient communication

Eight articles (20%) emphasized the need for transparent communication between patients and providers. One article stated generally that ethical and professional standards of care and practice should be maintained by psychologists throughout appointments (42). Five articles described that whether patients want to continue with virtual care after initially using it should be assessed on an ongoing basis, and the modality changed if requested (50-54). Two articles (5%) highlighted the importance of healthcare providers explicitly informing patients of the steps they take ensure confidentiality of their sessions (55, 56).

Quadruple Aim 2: Improving Population Health

27 articles (67.5%) had information related to quadruple aim 2. Two major themes were identified:

- Accessibility (n=22, 52%)
- Supporting health equity (n=8, 20%)

Accessibility

22 included articles (52%) focused on improving accessibility, noting that technology has the potential to expand patient access to mental health services. Fourteen of these articles (36%) stated that virtual mental health services can facilitate patients' access to necessary services that they might not otherwise have, such as those living in rural areas where many lack access

to in-person mental health therapy, or for individuals living with limited mobility or disability (23, 26, 29, 31, 37, 39, 40, 42, 47, 48, 53, 56-58).

Three articles (14%) noted virtual care could be useful for people who have diagnoses or for whom symptoms of their diagnoses might preclude attending in-person visits (38, 43), including the provision of psychotherapy and education patients with severe personality disorders (54).

Two articles (12%) noted that using telepsychiatry to deliver mental health treatments could alleviate the provider shortage, having a direct impact on access to care (25, 27, 45, 52). Stigma was also highlighted by one of the articles as a barrier to receiving care and that virtual modalities might ease access to care by reducing stigma experienced by patients accessing virtual services, through not having to go to a public place such as a hospital or clinic (36).

Supporting health equity

Another dimension was around supporting marginalized populations; that is, those for whom access to (in-person) mental health care is limited for some reason. For example, one article (2.5%) noted that virtual modalities can aid in providing deaf communities in the United States with services that are linguistically and culturally appropriate. (51)

One article (2.5%) highlighted the ability of telepsychiatry to minimize health inequalities and contribute to health equality by reaching communities who would otherwise go unserved (57). Another discussed problems related to the 'digital divide' and how telepsychiatry cannot reach its therapeutic and equity-promoting potential if patients in need do not have access to or know how to use the internet (44).

Three articles (7.5%) described how virtual modalities could support the availability of mental health services through facilitating care from existing providers into new settings such as prisons (27, 28, 30) and one noted that a population of veterans preferred virtual mental health care due to stigma surrounding mental health within that community (36). One article (2.5%) noted the importance of tailoring safety plans to specific situations such as geographical or jurisdictional area (46), since there might be unique challenges related to specific marginalized populations.

Quadruple Aim 3: Reducing Costs

10 articles (25%) had information related to quadruple aim 3. Two major themes were identified:

- Cost-effectiveness of virtual care (n=7, 17.5%)
- Virtual care coverage (n=3, 7.5%)

Cost-effectiveness of virtual care

Seven articles (17.5%) focused on the cost-effectiveness of virtual care. One (2.5%) described telemedicine as more cost-effective compared to in-person appointments, because it reduces patient-level costs related to time and travel for attending appointments (37). Another (2.5%) reported that online psychotherapy could lower healthcare expenses for clients, therapists, and society since it is reportedly cost-effective, although they did not provide specific figures (39). Two articles suggested that virtual care could somehow reduce long waiting lists for face-to-face therapy, because a single therapist may be able to see more patients, and that this could result in greater cost effectiveness with more patients served for the same number of staff (39, 51).

In one article (2.5%), virtual mental health care was linked to lower health care expenditures per capita because more patients with mental illnesses could receive more effective care which could result in fewer hospitalizations (28). Two articles (5%) on peer support interventions for social isolation and depression reported that virtual delivery required less clinician time, lowering per capita health care costs (37, 52). Another article about a telepsychiatry program in prisons in the United States described between $12,000 and $1 million in cost savings after the implementation of remote programs (59). A review of virtual care visits across several countries reported a lower no-show rate than in-person visits (43).

Virtual care coverage

Three articles (7.5%) noted the importance for patients to know what virtual care services were and were not covered in their specific setting; one of these articles also noted the importance for providers to understand how virtual care is dealt with in their compensation model (56). A review article of international literature from during the COVID-19 pandemic described the importance of patients having access to clear information about what their insurance covers regarding virtual mental health care (44), since this often differs from what in-person services are covered. One article from Poland noted in that country, virtual visits are paid the same as in-person visits, as long as they are not being used inappropriately in place of a needed in-person assessment (60).

Quadruple Aim 4: Improving Provider Experience

22 articles (55%) had information related to quadruple aim 4. We identified two major themes:

- Increasing provider training for virtual care (n=10, 25%)
- Setting professional boundaries (n=15, 37.5%)

Increasing provider training for virtual care

Ten articles (22.5%) focused on providing training for virtual care. Seven articles (17.5%) recommended that staff receive proper training and adopt an understanding and individualized communication approach (23, 25, 28, 42-44, 53). Two articles (5%) reported that providers should strengthen their communication skills by enrolling in training courses or programs (58, 61). Another article (2.5%) noted the importance of physical comfort for providers, to avoid weariness and issues related to prolonged computer use (41).

Setting professional boundaries

Fifteen articles (37.5%) described the importance of scheduling and anticipated response times related to appointment booking, and requests for urgent and or/asynchronous care. Eight articles (20%) noted that because virtual care can theoretically be provided at any time of day, it is essential for patients to have unambiguous information about the provider or service's working hours (29-31, 39, 45, 49, 60, 61). Five articles (12.5%) recommended that providers and patients set a contract around an 'anticipated response time' related to when a patient reaches out to a provider, when they should expect a response, at the start of their clinical relationship (34, 35, 39, 47, 50). Four articles (10%) described the importance of a personalized and empathetic communication style was emphasized across multiple articles (28, 44, 55, 61). In addition, one article (2.5%) recommended providers avoid discussions about aspects related to life outside the clinical setting (61).

Discussion

Our rapid review found that articles describing mental health-based virtual services and standards offered a wide range of recommendations for practitioners. Overall, we found there were fewer articles addressing the extent to which virtual care could reduce costs, in comparison with the number of articles reporting recommendations about improving patient and caregiver experience, improving population health, or improving provider experiences. Our content analysis approach identified several important concepts related to virtual care for mental health, such as the extent to which it can enhance health equity, and the importance of establishing agreements or understanding between patients and providers about the expected time between a patient contacting a healthcare provider, and their response.

We used the Quadruple Aim to extract data in the first instance and then conducted directed directed content analysis using those extracted data; other Quadruple Aim-based health services studies have shared some similar findings. For example, in one article assessing the Quadruple Aim in the context of patient portals, researchers reported that providers had worries about implementing this new technology into their practices and how this may challenge provider boundaries, particularly if patients expected that this new technology would require providers to respond to their messages constantly and immediately (12). Other articles evaluating the potential of virtual mental health services post-COVID-19 have also focused on themes not unlike our results, such as the importance of developing and providing sufficient virtual mental health training for healthcare providers (62, 63) . One article (63) emphasized that whatever virtual mental health guidelines and standards are developed should be customized for different disciplines; we found many articles included in our manuscript were vague with respect to what discipline they related to (e.g. n=14 articles described that they were related to 'clinicians' or 'healthcare professionals' in general) Another noted that although much research seems to portray a positive view of the cost-effectiveness of telehealth, less research is available evaluating the cost-effectiveness of virtual mental health (64).

The Quadruple Aim suggests that health care systems and institutions should work to improve population health and the "…patient experience of care" (10), among other things. Surprisingly, although almost all of our included manuscripts reporting standards for virtual mental health care provided recommendations related to improving either population health or patient experience, none of them reported patient inclusion or feedback within their work. Instead, they reported what researchers and providers believed to be best for their patients, based on their own experiences. Although other research has been done assessing patients' opinions on virtual health services (65, 66), or satisfaction after using these services (67), very little has been published reporting patients' opinions on virtual *mental* health services. Another notable finding is that although we focused our search on 'synchronous' delivery of virtual mental health services, many included articles also described the importance of and recommendations for asynchronous virtual mental health care such as emails and text messages between patients and providers. Our team previously examined what virtual mental health services are included in provincial health coverage in Canadian settings and determined that in almost all cases, only synchronous care was included; the emphasis we identified in this review on asynchronous care suggests that there is interest in a more diverse basket of services being available (68). Future research in this area should explore patients' experiences with and the effectiveness of all virtual care modalities.

Overall, most of the articles reviewed were generally positive in tone while discussing the future of virtual mental health care and services. Many articles praised the potential of virtual mental health care to improve the care for marginalized populations, such as those living rurally, or who may have limitations due to mobility (65). Others cautioned that other parts of the population may be easily left behind in a pro-virtual mental health care era; some of these populations include patients with low internet access or poor technological literacy (69-71). Throughout high-income country settings, virtual delivery of mental health services has become a core part of the health system; although there were some questions of whether there would be a diminution of the use of virtual care as the public health concerns related to the COVID-19 pandemic resolved, it is apparent that virtual modalities are a core aspect of the 'new normal' (3). key takeaway from this research is the need for high quality guidelines to support and guide for virtual mental health care; these could be used to guide development of provider training and influence policy decisions about resource allocation. Above all, we found that research on the implications for virtual care has emphasized the need for it to be effective, safe for participants, timely, efficient, patient-centred and equitable.

Strengths and Limitations:

Our approach has some limitations. This review is a "rapid review", which has been previously described as a "…type of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information in a short period of time" (72) . As such, while this review will be well-suited for establishing a knowledge base regarding virtual care delivery guidelines, it is possible that our literature search was not fully comprehensive. Although this may have resulted in missing some relevant articles, we believe the value of

having completed this in a timely manner to guide policy development outweighs that downside. Our use of the 'Quadruple Aim' as a framework for data collection from included articles may have impacted the interpretation of the content analysis, but we believe this provided an important direction that grounded our process in essential health services aims. Strengths include our engagement of individuals with lived experience of mental illness throughout the review process, including in establishing the research question and reviewing emerging concepts and themes through the content analysis process. Our search identified relevant results and by conducting a rapid review as opposed to a systematic or scoping review, we have been able to incorporate these findings into a process for developing national standards for virtual mental health services in Canadian primary care, (13) which will become important policy guidance for Canadian healthcare. We used rigorous methods throughout and advanced knowledge in an area that had not previously been thoroughly examined.

Conclusion

Changes in the delivery of primary care brought about by the public health response to the COVID-19 pandemic have necessitated an analysis of how virtual mental health care is delivered, and what recommendations exist to support and refine its delivery. This review described the extent to which existing recommendations in high income settings fulfill domains within the Quadruple Aim, and generated new knowledge about concepts within these domains that can be used to guide policy development. This review has occurred at an opportune time to address a burgeoning gap in knowledge, contributing to current understanding of the research and guidelines relied upon by providers to deliver virtual care in high income countries before, during and after the implementation of COVID-19 restrictions.

Authors' contributions:

BO conceived of the overall project. CZ designed and implemented the search strategy. LL, NE, AY reviewed search results and selected articles for inclusion and extracted data. NE and AY conducted analysis. BO, NE, AY wrote the first draft of this manuscript. All authors substantively contributed to discussions about data analysis during the review process. All authors substantively reviewed and edited the manuscript for intellectual content prior to submission.

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Competing interests statement

All authors report no competing interests.

References:

1. Shaw J, Jamieson T, Agarwal P, Griffin B, Wong I, Bhatia RS. Virtual care policy recommendations for patient-centred primary care: findings of a consensus policy dialogue using a nominal group technique. Journal of telemedicine and telecare. 2018;24(9):608-15.
2. Glazier RH, Green ME, Wu FC, Frymire E, Kopp A, Kiran T. Shifts in office and virtual primary care during the early COVID-19 pandemic in Ontario, Canada. Cmaj. 2021;193(6):E200-E10.
3. Oleg Bestsennyy GG, Alex Harris , and, Rost J. Telehealth: A quarter-trillion-dollar post-COVID-19 reality? 2021.
4. Husain MO, Gratzer D, Husain MI, Naeem F. Mental illness in the post-pandemic world: digital psychiatry and the future. Frontiers in Psychology. 2021;12:567426.
5. Association CMH. Canadian Mental Health Association fast facts about mental health. 2014.
6. Family Co, Pandemic: PoCFPRttC-, Results of the May 2021 CFPC Members Survey on COVID-19. Mississauga Ontario, Canada, 2021.
7. Stephenson E, Butt DA, Gronsbell J, Ji C, O'Neill B, Crampton N, et al. Changes in the top 25 reasons for primary care visits during the COVID-19 pandemic in a high-COVID region of Canada. PloS one. 2021;16(8):e0255992.
8. Stephenson E, O'Neill B, Gronsbell J, Butt DA, Crampton N, Ji C, et al. Changes in family medicine visits across sociodemographic groups after the onset of the COVID-19 pandemic in Ontario: a retrospective cohort study. Canadian Medical Association Open Access Journal. 2021;9(2):E651-E8.
9. Hammersley V, Donaghy E, Parker R, McNeilly H, Atherton H, Bikker A, et al. Comparing the content and quality of video, telephone, and face-to-face consultations: a non-randomised, quasi-experimental, exploratory study in UK primary care. British Journal of General Practice. 2019;69(686):e595-e604.
10. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. The Annals of Family Medicine. 2014;12(6):573-6.
11. Avdagovska M, Menon D, Stafinski T. Capturing the impact of patient portals based on the quadruple aim and benefits evaluation frameworks: scoping review. Journal of medical Internet research. 2020;22(12):e24568.
12. Arnetz BB, Goetz CM, Arnetz JE, Sudan S, vanSchagen J, Piersma K, et al. Enhancing healthcare efficiency to achieve the Quadruple Aim: an exploratory study. BMC research notes. 2020;13(1):1-6.
13. Braden O'Neill NE. Improving Primary care for people with mental illness. 2023
14. Garritty C, Gartlehner G, Nussbaumer-Streit B, King VJ, Hamel C, Kamel C, et al. Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. Journal of clinical epidemiology. 2021;130:13-22.
15. Tricco AC, Garritty CM, Boulos L, Lockwood C, Wilson M, McGowan J, et al. Rapid review methods more challenging during COVID-19: commentary with a focus on 8 knowledge synthesis steps. Journal of clinical epidemiology. 2020;126:177-83.
16. Adrienne Stevens CG, Mona Hersi, David Mohe. Developing PRISMA-RR, a reporting guideline for rapid reviews of primary studies

(Protocol). 2018.
17. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. International journal of surgery. 2021;88:105906.
18. Health NIom. What is Telemental Health 2023 [Available from: https://www.nimh.nih.gov/health/publications/what-is-telemental-health.
19. Telehealth. Synchronous direct-to-consumer telehealth [Available from: https://telehealth.hhs.gov/providers/best-practice-guides/direct-to-consumer/synchronous-direct-to-consumer-telehealth#:~:text=Synchronous%20care%20is%20the%20most,usually%20via%20phone%20or%20video.
20. World Bank Country and Lending Groups. [Available from: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519#High_income.
21. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. Qualitative health research. 2005;15(9):1277-88.
22. Elo S, Kyngäs H. The qualitative content analysis process. Journal of advanced nursing. 2008;62(1):107-15.
23. de Weger E, MacInnes D, Enser J, Francis S, Jones F. Implementing video conferencing in mental health practice. Journal of Psychiatric and Mental Health Nursing.20(5 PG - 448-454):448-54.
24. Rabe M. Telehealth in South Africa: A guide for healthcare practitioners in primary care. South African Family Practice.64(1) .
25. Johnson GR. Toward Uniform Competency Standards in Telepsychology: A Proposed Framework for Canadian Psychologists. Canadian Psychology.55(4 PG - 291-302):291-302.
26. Luxton DD, Pruitt LD, Osenbach JE. Best Practices for Remote Psychological Assessment via Telehealth Technologies. Professional Psychology: Research & Practice.45(1 PG - 27-35):27-35.
27. Saeed SA, Pastis I. Using Telehealth to Enhance Access to Evidence-Based Care. Psychiatric Times.35(6 PG - 9-22):9-22.
28. Shore JH. Best Practices in Tele-Teaming: Managing Virtual Teams in the Delivery of Care in Telepsychiatry. Current Psychiatry Reports.21(8 PG - N.PAG-N.PAG):N.PAG-N.PAG.
29. Shore JH, Yellowlees P, Caudill R, Johnston B, Turvey C, Mishkind M, et al. Best Practices in Videoconferencing-Based Telemental Health April 2018. Telemedicine and e-Health.24(11 PG - 827-832):827-32.
30. Liem A, Sit HF, Arjadi R, Patel AR, Elhai JD, Hall BJ. Ethical standards for telemental health must be maintained during the COVID-19 pandemic. Asian J Psychiatr.53(PG - 102218):102218-.
31. Sasangohar F, Bradshaw MR, Carlson MM, Flack JN, Fowler JC, Freeland D, et al. Adapting an outpatient psychiatric clinic to telehealth during the COVID-19 pandemic: A practice perspective. Journal of Medical Internet Research.22(10) (no pagination)(PG -).
32. Duane JN, Blanch-Hartigan D, Sanders JJ, Caponigro E, Robicheaux E, Bernard B, et al. Environmental Considerations for Effective Telehealth Encounters: A Narrative Review and Implications for Best Practice. Telemedicine and e-Health.28(3 PG - 309-316):309-16.
33. Summer G, Adelman DS, Fant C. COVID-19 and telehealth: How to complete a successful telehealth visit. Nurse Pract.46(6 PG - 43-47):43-7.

34. Turvey C, Coleman M, Dennison O, Drude K, Goldenson M, Hirsch P, et al. ATA practice guidelines for video-based online mental health services. Telemedicine and e-Health.19(9 PG - 722-730):722-30.
35. Webb C, Orwig J. Expanding our Reach: Telehealth and Licensure Implications for Psychologists. Journal of Clinical Psychology in Medical Settings.22(4)(PG - 243-250):243-50.
36. Pompeo-Fargnoli A, Lapa A, Pellegrino C. Telemental health and student veterans: A practice perspective through voices from the field. Journal of Technology in Human Services.38(3 PG - 271-287):271-87.
37. Goldin D, Maltseva T, Scaccianoce M, Brenes F. Cultural and Practical Implications for Psychiatric Telehealth Services: A Response to COVID-19. Journal of Transcultural Nursing.32(2 PG - 186-190):186-90.
38. Haydon HM, Smith AC, Snoswell CL, Thomas EE, Caffery LJ. Addressing concerns and adapting psychological techniques for videoconsultations: a practical guide. Clinical Psychologist.25(2 PG - 179-186):179-86.
39. Stoll J, Muller JA, Trachsel M. Ethical Issues in Online Psychotherapy: A Narrative Review. Frontiers in Psychiatry.10 (no pagination)(PG -).
40. Yellowlees P, Shore J, Roberts L. Practice guidelines for videoconferencing-based telemental health - October 2009. Telemedicine and e-Health.16(10 PG - 1074-1089):1074-89.
41. Chipps J, Ramlall S, Mars M. Practice guidelines for videoconference-based telepsychiatry in South Africa. African Journal of Psychiatry (South Africa).15(4 PG - 271-282):271-82.
42. Joint Task Force for the Development of Telepsychology Guidelines for P. Guidelines for the practice of telepsychology. Am Psychol.68(9 PG - 791-800):791-800.
43. Hilty DM, Sunderji N, Suo S, Chan S, McCarron RM. Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies. International Review of Psychiatry.30(6 PG - 292-309):292-309.
44. Abraham A, Jithesh A, Doraiswamy S, Al-Khawaga N, Mamtani R, Cheema S. Telemental Health Use in the COVID-19 Pandemic: A Scoping Review and Evidence Gap Mapping. Frontiers in Psychiatry.12(PG -).
45. Luxton DD, O'Brien K, McCann RA, Mishkind MC. Home-based telemental healthcare safety planning: what you need to know. Telemed J E Health.18(8 PG - 629-33):629-33.
46. Luxton DD, O'Brien K, Pruitt LD, Johnson K, Kramer G. SUICIDE RISK MANAGEMENT DURING CLINICAL TELEPRACTICE. International Journal of Psychiatry in Medicine.48(1 PG - 19-31):19-31.
47. Barnett JE, Kolmes K. The practice of tele-mental health: Ethical, legal, and clinical issues for practitioners. Practice Innovations.1(1 PG - 53-66):53-66.
48. Palomares RS, Bufka LF, Baker DC. Critical Concerns When Incorporating Telepractice in Outpatient Settings and Private Practice. Journal of Child & Adolescent Psychopharmacology.26(3 PG - 252-259):252-9.
49. Smith K, Ostinelli E, Macdonald O, Cipriani A. COVID-19 and telepsychiatry: Development of evidence-based guidance for clinicians. JMIR Mental Health.7(8) (no pagination)(PG -).
50. Van Daele T, Karekla M, Kassianos AP, Compare A, Haddouk L, Salgado J, et al. Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond. Journal of Psychotherapy Integration.30(2 PG - 160-173):160-73.

51. Crowe TV. Is telemental health services a viable alternative to traditional psychotherapy for deaf individuals? Community Mental Health Journal.53(2 PG - 154-162):154-62.
52. Gorenko JA, Moran C, Flynn M, Dobson K, Konnert C. Social Isolation and Psychological Distress Among Older Adults Related to COVID-19: A Narrative Review of Remotely-Delivered Interventions and Recommendations. Journal of Applied Gerontology.40(1 PG - 3-13):3-13.
53. Grosch MC, Gottlieb MC, Cullum CM. Initial practice recommendations for teleneuropsychology. Clinical Neuropsychologist.25(7 PG - 1119-1133):1119-33.
54. de Siqueira Rotenberg L, Nascimento C, Cohab Khafif T, Silva Dias R, Lafer B. Psychological therapies and psychoeducational recommendations for bipolar disorder treatment during COVID-19 pandemic. Bipolar Disorders.22(6 PG - 644-646):644-6.
55. Adams SM, Rice MJ, Jones SL, Herzog E, Mackenzie LJ, Oleck LG. TeleMental Health: Standards, Reimbursement, and Interstate Practice. Journal of the American Psychiatric Nurses Association.24(4 PG - 295-305):295-305.
56. McCord C, Bernhard P, Walsh M, Rosner C, Console K. A consolidated model for telepsychology practice. Journal of Clinical Psychology.76(6 PG - 1060-1082):1060-82.
57. Sabin JE, Skimming K. A framework of ethics for telepsychiatry practice. International Review of Psychiatry.27(6 PG - 490-495):490-5.
58. Xiang YT, Zhao N, Zhao YJ, Liu Z, Zhang Q, Feng Y, et al. An overview of the expert consensus on the mental health treatment and services for major psychiatric disorders during COVID-19 outbreak: China's experiences. Int J Biol Sci.16(13 PG - 2265-2270):2265-70.
59. Batastini AB, Jones ACT, Lester ME, Davis RM. Initiation of a multidisciplinary telemental health clinic for rural justice-involved populations: Rationale, recommendations, and lessons learned. J Community Psychol.48(7 PG - 2156-2173):2156-73.
60. Krzystanek M, Matuszczyk M, Krupka-Matuszczyk I, Kozmin-Burzynska A, Segiet S, Przybylo J. Letter to Editor. Polish recommendations for conducting online visits in psychiatric care. Psychiatr Pol.54(2 PG - 391-394):391-4.
61. Drum KB, Littleton HL. Therapeutic Boundaries in Telepsychology: Unique Issues and Best Practice Recommendations. Professional Psychology: Research & Practice.45(5 PG - 309-315):309-15.
62. Palesy D, Forrest G, Crowley ME. Education guidelines, frameworks and resources for building virtual care capacity: An integrative review. Journal of Telemedicine and Telecare. 2023:1357633X221149230.
63. Thomas EE, Haydon HM, Mehrotra A, Caffery LJ, Snoswell CL, Banbury A, et al. Building on the momentum: sustaining telehealth beyond COVID-19. Journal of telemedicine and telecare. 2022;28(4):301-8.
64. Hilty DM, Serhal E, Crawford A. A telehealth and telepsychiatry economic cost analysis framework: Scoping review. Telemedicine and e-Health. 2023;29(1):23-37.
65. Gordon HS, Solanki P, Bokhour BG, Gopal RK. “I’m not feeling like I’m part of the conversation” patients’ perspectives on communicating in clinical video telehealth visits. Journal of general internal medicine. 2020;35:1751-8.
66. Yellowlees P, Richard Chan S, Burke Parish M. The hybrid doctor–patient relationship in the age of technology–Telepsychiatry consultations and the use of virtual space. International Review of Psychiatry. 2015;27(6):476-89.

67. Serhal E, Kirvan A, Sanches M, Crawford A. Client satisfaction and experience with telepsychiatry: development and validation of a survey using clinical quality domains. Journal of Medical Internet Research. 2020;22(9):e19198.

68. Abban Yusuf BON. Access to virtual mental-health care uneven across Canada 2023.

69. O'Keefe M, White K, Jennings JAC. Asynchronous telepsychiatry: A systematic review. Journal of telemedicine and telecare. 2021;27(3):137-45.

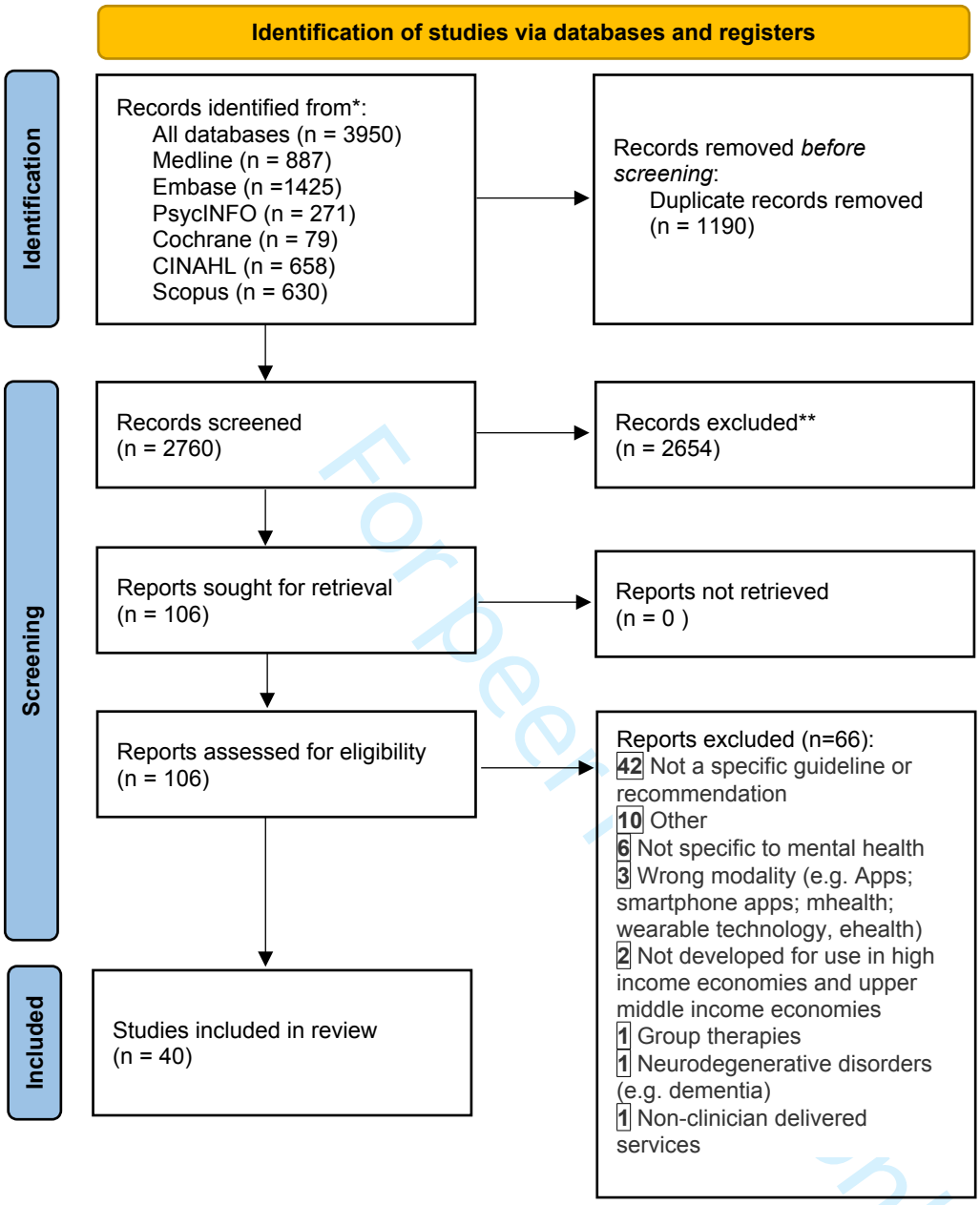
70. Rodriguez JA, Betancourt JR, Sequist TD, Ganguli I. Differences in the use of telephone and video telemedicine visits during the COVID-19 pandemic. American Journal of Managed Care. 2021;27(1).

71. Sachs JW, Graven P, Gold JA, Kassakian SZ. Disparities in telephone and video telehealth engagement during the COVID-19 pandemic. JAMIA open. 2021;4(3).

72. Tricco AC, Antony J, Zarin W, Strifler L, Ghassemi M, Ivory J, et al. A scoping review of rapid review methods. BMC medicine. 2015;13(1):1-15.

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only

Figure 1.



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

Table 2: Characteristics of Included Articles

Author and year	Title of Document	Country	Setting	Study description	Provider type	Quadruple Aim 1 ('Improving patient experience')	Quadruple Aim 2 ('Improving population health')	Quadruple Aim 3 ('Reducing costs')	Quadruple Aim 4 ('Improving provider satisfaction')
Abraham, A.; Jithesh, A.; Doraiswamy, S.; Al-Khawaga, N.; Mamtani, R.; Cheema, S (2021)	Telemental Health Use in the COVID-19 Pandemic: A Scoping Review and Evidence Gap Mapping	"International"	Virtual mental health care environment	Scoping review describing the scope and domains of telemental health during the COVID-19 pandemic from the published literature and discussing associated challenges	Psychologists, psychiatrists	Authors wish for provides to prepare patients, for the telemental health experience. Telemental health sessions should last for reasonable lengths of time, with a periodic break, if needed, and patients should be empowered and an equal partner in their own care.	Health service providers and policy makers must both recognize and advocate to reduce health disparities	Ensure patients are aware of billing and insurance policies up front. Insurance providers should expand coverage for telemental health	Staff should receive appropriate training and practice, adopt empathetic and personalized communications styles and properly consult patients for consent.
Adams, S. M.; Rice, M. J.; Jones, S. L.; Herzog, E.; Mackenzie, L. J.; Oleck, L. G. (2018)	TeleMental Health: Standards, Reimbursement, and Interstate Practice	United States	Virtual mental healthcare environment	Literature review about telemental health guidelines, specifically related to 'interstate' practices (where provider is in one state and the client is in another one)	Psychologists, psychiatrists, advanced practice registered nurses, social workers, mental health nurse practitioners	Important considerations for patients include clients' personal information secure, does the technology used by provider ensure client confidentiality, is the provider licensed in the patient's state, are there any limitations to the use of a Telehealth Service with this provider.	**N/A**	**N/A**	Providers should have professional liability coverage (i.e., malpractice insurance and note that multiple billing codes, documentation standards, reimbursement schedules, and patient or provider location restrictions create a billing landscape that is difficult to navigate.
Barnett, Jeffrey E.; Kolmes, Keely (2016)	The practice of tele-mental health: Ethical, legal, and clinical issues for practitioners	United States	Virtual mental health care environment	In order to address ethical, legal, and clinical difficulties, the study looks at how technology might be integrated into clinical services, particularly tele-mental health, for the benefit of practitioners and clients. It	**N/A**	It is important to research resources in each client's local area and to provide the client with recommended resources to contact if experiencing a crisis that cannot be addressed through tele-mental health	The practice of telemental health can help clients obtain needed services to which they might not otherwise have access. In a rural state with so many individuals not having easy access to in-person mental health treatment, the practice of tele-mental health may be of great benefit to them	**N/A**	Clinicians need to be aware of appropriate billing codes for telemental health services so that they are not inadvertently engaging in insurance fraud by billing these services the same as face-to-face services -anticipated response time to electronic communications by the client

				also offers recommendations.					should be shared and agreed to -It is each clinician's responsibility to research any applicable licensing laws and regulations prior to providing professional services in those jurisdictions
Batastini, A. B.; Jones, A. C. T.; Lester, M. E.; Davis, R. M. (2020)	Initiation of a multidisciplinary telemental health clinic for rural justice-involved populations: Rationale, recommendations, and lessons learned	United States	Telemental health clinic serving prison inmates	In order to reduce criminogenic and psychiatric risks, this study presents a case of establishing a virtual telemental health clinic in a rural Mississippi county. It then analyses the use of videoconferencing technology (VCT) in mental healthcare for justice-involved populations, offers recommendations for community partnerships, operational procedures, and evidence-based interventions.	Clinicians	**N/A**	**N/A**	One multistate survey of telepsychiatry visits in correctional facilities found between $12,000 and $1-million-dollar cost savings following the implementation of remote programs.	**N/A**
Chipps, J.; Ramlall, S.; Mars, M. (2012)	Practice guidelines for videoconference-based telepsychiatry in South Africa	South Africa	Telepsychiatry-providing institutions	This study looks at telepsychiatry as a commonly used form of telemedicine, emphasizing the need for guidelines to ensure safe	Primary care mental health practitioner	Sensory deficits, especially visual and auditory, can impair the ability to interact over a videoconference connection. The inclusion of family members should be undertaken as	**N/A**	**N/A**	The comfort of the mental health professionals who perform consultations should be considered to prevent fatigue and vision problems from

				and effective therapeutic use, especially for vulnerable groups.		clinically appropriate and with the permission of the MHCU.			prolonged/increased computer interactions.
Crowe, Teresa V. (2017)	Is telemental health services a viable alternative to traditional psychotherapy for deaf individuals?	United States	Clinics providing virtual mental health care to deaf patients	This study looks into the viewpoints of 422 deaf people on telemental health services, emphasising its potential as a viable choice for getting mental health treatment and providing accessible and equitable healthcare options.	Mental health providers	Patients frequently reported that they would use virtual mental health services, if these services were available to them. Factors contributing to willingness to use virtual mental health care were: barriers experienced from accessing services in-person (e.g. long wait times for interpreters, poor communication between providers who did not know ASL and patients, etc.)	Authors suggest that virtual mental health services can help provide service that is culturally and linguistically appropriate for deaf populations in the US.	Financial barriers may be alleviated should insurance companies offer more financial compensation for mental health services. In addition, virtual mental health services should focus on being 'far-reaching' as basing there are not enough deaf people per capita to support services aimed at them. Hence, virtual mental health care may stem this gap in services, especially to those living rurally	**N/A**
de Siqueira Rotenberg, L.; Nascimento, C.; Cohab Khafif, T.; Silva Dias, R.; Lafer, B. (2020)	Psychological therapies and psychoeducational recommendations for bipolar disorder treatment during COVID-19 pandemic	Brazil	Clinics providing virtual mental health care to patients with bipolar disorder	The study explores psychological therapy approaches and psychoeducational recommendations for the management of bipolar disorder specifically during the COVID-19 pandemic.	Healthcare professionals (e.g. nurses, psychologists, doctors)	Patient experience is improved by easy access to clinicians, availability of online, social and psychological support	Telehealth provides psychological and social online support for patients. Healthcare professionals should unite to reinforce prescription of psychological therapies, review psychoeducation, and reinforce healthy living behaviors for BPD	**N/A**	**N/A**
de Weger, E.; MacInnes, D.; Enser, J.; Francis, S.; Jones, F.	Implementing video conferencing in mental health practice	United Kingdom	Mental health sector	This paper presents an overview of the evidence base on video	Health care provider	Staff and service users should meet/discuss prior to implementation whether there are gaps in the overall service of	Face-to-face virtual mental health services suitable for routine outpatient assessments,	**N/A**	Training sessions relating to VC best practice guidelines and even role-playing

(2013)				conferencing (VC) in mental health, based on a literature review and the authors' implementation experience. The paper also discusses challenges that may arise during VC implementation in a mental health context, highlighting the importance of cultural change for staff acceptance.		the provider and whether VC (or other ehealth applications) could fill these gaps. Healthcare professionals should increase flexibility and availability for scheduling sessions/appointments with patients, while interacting with patients in new and flexible ways.	cognitive assessments, forensic services may be able to help provide services to those who may not be able to attend these services in-person, such as those currently imprisoned.		sessions may be helpful for staff. Determine what support staff and service users would need in order to feel comfortable with the technology; whether staff and service users feel it would improve the care provided

Drum, Katherine B.; Littleton, Heather L. (2014)	Therapeutic Boundaries in Telepsychology: Unique Issues and Best Practice Recommendations	United States	Virtual mental health care environment	This paper explores the importance of maintaining therapeutic boundaries in telepsychology, providing best practice recommendations to ensure ethical and effective treatment in this evolving service delivery context.	Clinicians	**N/A**	**N/A**	**N/A**	Virtual mental health service should not lead to inappropriately casual interactions between providers and clientele. There should be clear markers to the beginning and end of therapeutic appointments, and these should be scheduled ahead of time and kept within business hours. Providers should avoid interacting with patients virtually in public settings. They should also keep backgrounds consistent during video calls to avoid confidentiality concerns and avoid 'friending' patients on social media.

Duane, J. N.; Blanch-Hartigan, D.; Sanders, J. J.; Caponigro, E.; Robicheaux, E.; Bernard, B.; Podolski, M.; Ericson, J. (2022)	Environmental Considerations for Effective Telehealth Encounters: A Narrative Review and Implications for Best Practice	United States	Virtual mental health care environment	This study conducts a narrative review to explore environmental factors influencing video-based clinician-patient telehealth communication, providing guidance for clinical practice and future research to enhance patient experience and outcomes in telehealth visits.	Clinicians	Communication within digital (e.g., telehealth) environments can be adversely impacted when nonverbal cues that are available during face-to-face interaction are reduced or degraded. Nonverbal cues include: immediacy, the ‘‘closeness’’ of individuals (e.g., as specified by body orientation, and eye contact); relaxation, or the tension evident through pose and posture); and responsiveness (e.g., facial expressions, voice inflection).	**N/A**	**N/A**	**N/A**
Goldin, Deana; Maltseva, Tatayana; Scaccianoce, Monica; Brenes, Francisco (2021)	Cultural and Practical Implications for Psychiatric Telehealth Services: A Response to COVID-19	United States	Virtual mental health care environment	The paper provides an overview of the growing utilization of telehealth for mental health services during the COVID-19 pandemic, focusing on culturally appropriate practice strategies and promoting client-provider engagement.	Healthcare practitioners	For telehealth to be effective and achieve its full potential, it must include safe, effective, client-centered, timely, efficient, and equitable care. Factors to consider during remote mental visits includes risk assessment, level of supervision, appraisal of symptom severity, cognitive capacity, evaluation of medical comorbidities requiring in-person examinations, and a review of prior history of treatment compliance, substance abuse, and self-injurious behaviors. In, availability of necessary technology is critical to consider considerations when screening clients.	Telehealth may improve access to psychiatric services for patients who live in rural areas/ lack ability to access public transportation.	Telemedicine more cost-effective for patients because productivity is increased as time and money spent to try and attend an appointment is lowered.	**N/A**

Gorenko, Julie A.; Moran, Chelsea; Flynn, Michelle; Dobson, Keith; Konnert, Candace (2021)	Social Isolation and Psychological Distress Among Older Adults Related to COVID-19: A Narrative Review of Remotely-Delivered Interventions and Recommendations	United States	Virtual mental health care for seniors	This narrative review highlights the negative impacts of the COVID-19 pandemic on older adults' well-being and provides an overview of remotely-delivered interventions targeting loneliness and psychological symptoms, along with recommendations to overcome implementation barriers.	Clinicians	Ensure clients are actively engaged in interventions; otherwise, clinicians risk worsening their symptoms. Clinicians should also be flexible when implementing psychological interventions in this demographic. Clinicians may also want to consider peer-support -including interventions for patients struggling with depression. Clients should be actively engaged in interventions	N/A	Interventions involving peer support for senior patients with depression typically require less clinician time, reducing per capita health care costs.	**N/A**
Grosch, M. C.; Gottlieb, M. C.; Cullum, C. M. (2011)	Initial practice recommendations for tele-neuropsychology	Canada and the United States	Virtual neuropsychological care environment	This addresses the need for guidelines in the ethical practice and utilization of telemedicine, specifically in the context of telecognitive assessment and teleneuropsychology, providing practical and ethical considerations and initial practice recommendations.	Neuropsychologists	Use appropriate volume levels on a call, make sure the camera is facing the provider at a decent angle. The provider also needs to ensure that technical specifications are up to par.	Virtual care can be offered to individuals that would not otherwise have access, such as people living in rural settings, those with insufficient healthcare resources in their community, disabled individuals with limited mobility, service members deployed to remote settings, victims of natural disasters, etc.	**N/A**	Neuropsychologists should be trained in providing virtual care prior to deploying it in their practice. They should also follow current standards.
Haydon, Helen M.; Smith, Anthony C.; Snoswell, Centaine L.; Thomas, Emma E.; Caffery, Liam J. (2021)	Addressing concerns and adapting psychological techniques for videoconsultations: a practical guide	Australia	Virtual mental health care environment	This provides practical recommendations for psychologists transitioning to telepsychology services during the COVID-19 pandemic, addressing	Clinicians	Clinicians should discuss whether to do telepsychology with patients, while asking for their opinions.	There is "substantial evidence" regarding the efficacy of telepsychology, particularly for PTSD, eating disorders, anxiety, depression. Less research is available regarding addictive behaviors. Telepsychology will	**N/A**	**N/A**

				concerns and optimizing effectiveness			also be useful in delivering care to hard-to-reach or underserved populations		
Hilty, Donald M.; Sunderji, Nadiya; Suo, Shannon; Chan, Steven; McCarron, Robert M. (2023)	Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies	United States	Virtual mental health care environment	It examines the evidence base for various telehealth technologies, including telepsychiatry, and their effectiveness in integrated care, highlighting the importance of clinician competencies and patient-centered approaches.	Primary care providers and telepsychiatrists	Patients and providers may be able to work together to both gather data on a particular health-related behaviour or metric and track that data in an app over time.	Generally, telepsychology well-received by patients and caregivers in low, medium and high intensity models of primary care. Best used within disease management and collaborative care models	Videoconferencing is cheaper than in-person. Non-video online communication (e.g. telephone/email consults) is cheaper than videoconferencing and occasionally more appropriate for patient interactions. Telepsychiatry also cuts down on no-show appointments, saving healthcare system money	Providers can work together within collaborative care models using telepsychiatry (TP). Training should also be available for integrating TP with other clinical practices.
Johnson, Gerald R. (2014)	Toward Uniform Competency Standards in Telepsychology: A Proposed Framework for Canadian Psychologists	Canada	Virtual mental health care environment	This paper examines the evolving competence requirements for Canadian psychologists practicing telepsychology and proposes using existing frameworks as a foundation for uniform competency standards.	Psychologists	Psychologists should ensure solid understanding of professional relationships in the contexts of: interpersonal relationships, power relationships, etc. to adequately deliver care to clients. For example, psychologists should be aiming to reduce crisis-induced stress and increase client functioning. They also need to evaluate patients correctly, perform proper assessments, and correctly prescribe interventions and consultations, both in-person and online.	Development of telepsychological standards of care may help limit unlicensed virtual 'psychologists' delivering improper or incorrect psychological care to patients.	**N/A**	Current psychological standards vary heavily province-to-province. This article recommends having providers complete supervised online counseling training, so that they may have the specialized skills, knowledge, resources, etc. to deliver virtual psychological care. This training would ensure that psychologists have the correct competencies to deliver virtual care to patients
Joint Task Force for the Development	Guidelines for the practice of telepsychology	United States	Virtual mental health care	These guidelines provide	Psychologists	Psychologists should ensure that ethical and professional standards	**N/A**	**N/A**	Psychologists should get training on how to

of Telepsychology Guidelines for, Psychologists (2013)			environment	education and guidance for psychologists practicing telepsychology, addressing the unique opportunities, considerations, and challenges associated with the use of telecommunication technologies in psychological service provision.		are maintained throughout telepsychology services they provide. Technology offers the opportunity to increase client/patient access to psychological services. Service recipients limited by geographic location, medical condition, psychiatric diagnosis, financial constraint, or other barriers may gain access to high-quality psychological services through the use of technology. Psychologists should thoroughly consider the most appropriate form of virtual modality and use for each individual client. They should also consider client preference.			provide services virtually, and be able to access resources that will help them deliver this care. In-person virtual training is strongly recommended. Psychologists are encouraged to be familiar with and comply with all relevant laws and regulations when providing telepsychology services to clients/ patients across jurisdictional and international borders.
Krzystanek, M.; Matuszczyk, M.; Krupka-Matuszczyk, I.; Kozmin-Burzynska, A.; Segiet, S.; Przybylo, J. (2020)	Letter to Editor. Polish recommendations for conducting online visits in psychiatric care	Poland	Virtual mental health care environment	It highlights the use of new technologies for remote care, such as tele-visits, and provides recommendations for conducting online visits in psychiatric care. The paper emphasizes the need for reliable patient identification and suggests using video communicators for remote visits to ensure a comprehensive assessment of the patient's mental state.	Doctors, psychologist, psychotherapists, addiction therapists	**N/A**	**N/A**	In Poland, virtual care visits are billed equivalently to in-person care visits. However, they cannot replace in-person medical or psychological examinations	A doctor, psychotherapist or psychologist may want to identify a patient, so the patient should have a photo ID.
Liem, A.; Sit, H. F.; Arjadi,	Ethical standards for telemental	Asia (did not narrow down to	Virtual mental	The paper underscores	Psychiatric service	Providers should be respectful of patient	Telemental health is also a strategy to	**N/A**	Providers should keep themselves

R.; Patel, A. R.; Elhai, J. D.; Hall, B. J. (2020)	health must be maintained during the COVID-19 pandemic	specific country or countries)	health care environment	the need for clinicians to ensure confidentiality, develop competency in online interventions, comply with regulations, obtain informed consent, and plan for contingencies.	providers	agency where possible and provide care ethically to patients	close the global mental health treatment gap, especially within low- and middle-income countries. However, many mental health care providers are insufficiently trained/prepared to give virtual mental health care during the COVID-19 pandemic.		aware of changing guidelines, etc. related to both psychiatric treatment and virtual delivery of care.
Luxton, David D.; O'Brien, Karen; Pruitt, Larry D.; Johnson, Kristine; Kramer, Gregory (2014)	Suicide Risk Management During Clinical Telepractice	United States	Providing virtual mental health services for suicidal military personnel and veterans	This discusses the implementation of procedures for assessing and managing suicide risk in a clinical trial comparing in-office and home-based telehealth treatment for depressed military service members and veterans. The safety protocol is adapted from best practices and guidelines, with a discussion on other safety issues in telepractice.	Mental health clinicians	This article aimed to determine whether home-based telemental health in military settings could be done feasibly, safely and effectively to inform policy for broader implementation of home-based treatments. Safety plans and care were developed with patients. The authors identified a support person who can assist in an emergency	It is important to tailor safety plans to the specific situations that may be encountered, particularly if patients are located in another geographical or jurisdictional area Virtual suicide mental health services may be useful in reaching clients living outside of regular jurisdictions.	**N/A**	**N/A**
Luxton, David D.; Pruitt, Larry D.; Osenbach, Janyce E. (2014)	Best Practices for Remote Psychological Assessment via Telehealth Technologies	United States	Virtual mental health care environment	This paper examines the impact of telehealth technologies on the validity and reliability of remote psychological assessments. It discusses factors such as physical presence, technological	Clinicians	It is important to consider potential cognitive and/or sensory deficits that patients may have that could impair their ability to use telehealth technology. Telehealth-based assessments allow practitioners to conveniently monitor symptoms and other health variables between in-person or	Virtual psychological services may provide populations with more convenient care that may not have been easily accessible otherwise. VTC also considered to be satisfying among patients using it for several reasons including convenience and a greater sense of control over sessions.	**N/A**	**N/A**

				issues, patient/provider acceptance, and procedural considerations. The review also includes psychometric data, limitations, and considerations related to culture, ethics, and safety.		telehealth treatment sessions. Further, telehealth-based psychological assessment may improve care satisfaction and overall health outcomes by providing services that are specialized for the patient's needs. Videoconferencing should make use of things like camera angles, screen size, etc. that may inhibit/ facilitate monitoring of these behaviors.			
Luxton, D. D.; O'Brien, K.; McCann, R. A.; Mishkind, M. C. (2014)	Home-based telemental healthcare safety planning: what you need to know	United States of America	Virtual mental health care environment	This article highlights safety considerations in home-based telemental health (TMH) care and provides recommendations for safety planning. Topics include state requirements, appropriateness, technology, emergency management, and TMH policy.	Clinician	The appropriateness of TMH care should be based on the needs of the patient as well as the comfort level of the clinician. It is also important to have a back-up plan if the video connection is lost. Alternate contact methods, such as by telephone, are necessary to maintain a connection between the patient. The observation of nonverbal behaviors, such as gestures, posture, and facial expressions, are important for clinicians to observe during psychological assessment and treatment because nonverbal behaviors can provide valuable clinical information that is not expressed with words alone	Clinicians' goal should be to reduce and prevent adverse reactions/events experienced by patients who partake in care services, often through procedures such as risk *e.g. suicide) monitoring, establishment of safety protocols, etc. Providers should also determine appropriateness of virtual care for each client	**N/A**	Familiarity with civil commitment requirements as well as duty to warn/protect (both statutory and case law requirements) is also important for TMH safety planning. It is recommended that TMH clinicians become familiar with the guidelines and ethics codes of their respective professional organizations. Verification of patient location is not only important for planning for the dispatch of emergency services, but also for clinician awareness of state licensure requirements. 5 Local collaborators can also provide TMH clinicians with an additional mechanism for contacting patients if a

									connection becomes lost, provide on-site technical assistance, and when appropriate, provide support to a patient during emergency situations.
McCord, Carly; Bernhard, Paula; Walsh, McKay; Rosner, Christine; Console, Katie (2020)	A consolidated model for telepsychology practice	United States	Virtual mental health care environment	This paper reviews available telepsychology guidelines, identifies commonalities, and presents a consolidated model of core practice domains. Telepsychology has potential benefits but practitioners face challenges. The model can inform competencies and practice development.	Psychologists	Clinicians should know how their sessions are protected through encryption and the location of private information even when disposed. Then, fully inform the clients about security issues. Clearly explain how their digital health information will be protected and kept from any outside interference during the course of telephone, video, email, or text-based therapeutic services	**N/A**	Compromised mental healthcare costs $300 billion USD per year	Psychologists should be able to verify the identity of the client (or the decision-maker if the client lacks the capacity to consent to the services) and also make it possible for clients to verify the identity and credentials of the psychologist. Billing is another important administrative skill, and should be outlined plans for financial arrangements, etc.
Palomares, Ronald S.; Bufka, Lynn F.; Baker, Deborah C. (2016)	Critical Concerns When Incorporating Telepractice in Outpatient Settings and Private Practice	United States	Virtual mental health care environment	This addresses the importance of staying up-to-date with technology in healthcare practice and provides considerations for evaluating and implementing technology in outpatient settings.	Mental health practitioners	Practitioners should first evaluate how and where they should add (or remove) technology into their care routine for a given client. They should also plan with patients what steps should happen if, during a remote call for example, the patient was deemed dangerous either to themselves or to others.	Telepractice has various uses within service provision. For example, it can be used as ancillary to in-person services (e.g. an online psychoeducational model following an in-person visit), directly for services (e.g. videoconferencing an appointment) telephone or email to schedule appointments).	**N/A**	**N/A**
Pompeo-Fargnoli, Alyson; Lapa, Amanda; Pellegrino, Courtne	Telemental health and student veterans: A practice perspective through voices	United States	Virtual mental health care for student veterans	This study explores how telemental health can address the unique mental	Counsellors	New therapies are being developed that can be used to help treat student veterans. These include: avatar therapy, which creates	Student veterans as a group are at high risk of developing mental illnesses like PTSD, depression, anxiety, etc. from	**N/A**	**N/A**

(2020)	from the field			health needs of student veterans, considering stigma and accessibility. It discusses various technologies used and includes expert recommendations and ethical considerations.		virtual environments and client and provider characters, gamification, which uses game-like features, such as progress bars/ goal setting/point systems/badges/etc. to increase client's motivation to complete health-related goals, videoconferencing, and SMS messaging.	their time in the military. As they move to reintegrate themselves into society, and adjust to student life, they may additional support from counsellors compared to non-veteran students. Barriers to accessing this care include stigma surrounding mental health. Researchers hope that virtual options of care may reduce the impact mental health-related stigma has among student veterans and making it easier to access care.		
Rabe, M. (2022)	Telehealth in South Africa: A guide for healthcare practitioners in primary care	South Africa	Virtual mental health care environment	This study discusses the increasing use of telehealth in clinical practice, particularly during the COVID-19 pandemic, and provides guidelines for healthcare practitioners in South Africa to conduct safe and effective telehealth consultations.	Healthcare practitioners	It is advised that telehealth consultations should occur between HCPs and patients only when they had established professional relationship.	**N/A**	**N/A**	**N/A**
Sabin, James E.; Skimming, Kathryn (2015)	A framework of ethics for telepsychiatry practice	International	Virtual mental health care environment	This review explores the ethical challenges faced by psychiatrists providing telepsychiatric services and emphasizes the need to address these challenges to ensure competent and	Psychiatrists	**N/A**	Telepsychiatry allows for more patients to access care that may otherwise go unserved.	**N/A**	**N/A**

				ethical care in telemedicine.					
Saeed, Sy Atezaz; Pastis, Irene (2018)	Using Telehealth to Enhance Access to Evidence-Based Care	Canada	Virtual mental health care environment	The paper emphasizes the potential of telepsychiatry in reducing geographic and socioeconomic disparities, enhancing coordination of care, and decreasing stigma associated with receiving mental health services..	Psychologists	Virtual care may be hampered by factors like age, sex, gender, education level, English proficiency, etc. which may impact someone's ability to access and use the technology required for virtual care.	The use of telepsychiatry to provide mental health services has the potential to solve the provider shortage problem that directly affects access to care. Telepsychiatry is not only effective and well accepted; it can also increase administrative efficiency.	**N/A**	**N/A**
Sasangohar, F.; Bradshaw, M. R.; Carlson, M. M.; Flack, J. N.; Fowler, J. C.; Freeland, D.; Head, J.; Marder, K.; Orme, W.; Weinstein, B.; Kolman, J. M.; Kash, B.; Madan, A. (2020)	Adapting an outpatient psychiatric clinic to telehealth during the COVID-19 pandemic: A practice perspective	United States	Psychiatric care clinic	This study examines the implementation of telepsychiatry during the COVID-19 pandemic, discussing its strengths, challenges, and recommendations for improved clinical practices.	Health care workers	Facility used many different platforms and modalities to meet patient needs (e.g. FaceTime, EHR, email, telephone, text, Microsoft Teams). Providers need to prepare backup plans and technologies in case first set of technologies used fails	While telehealth may be able to molded to fit the schedules and lives of different patients, differences in household incomes may determine the type of technology available	**N/A**	There was an increased need for communication between providers- staff should prepare for new changes in communication dynamics. Incorporating reflective time into/ between appointments is important. Incorporate as many demarcations of work vs home space as needed to and be disciplined to adhere to schedule work times (i.e. don't go over)
Shore, Jay H. (2019)	Best Practices in Tele-Teaming: Managing Virtual Teams in the Delivery of Care in Telepsychiatry	United States	Virtual mental health care environment	This review focuses on the management of virtual teams in team-based telepsychiatry services. The article synthesizes findings from psychology	Psychiatrists	Patients with traumatic experiences may feel more safe receiving care in a virtual environment	Telepyschiatry can be done using teams of staff and can be deployed onto different patient populations, such as prison populations	Telepsychiatry associated with reduced health care costs per capita because patients with mental health diagnoses "receive better targeted care and experience	Have clearly defined processes for team communications and interaction. Keep iterative approaches and assign roles and responsibilities. Have robust yet

				and business literature to provide recommendations for psychiatrists involved in team-based telepsychiatry.				decreased hospitalizations and increased compliance	egalitarian leadership.
Shore, J. H.; Yellowlees, P.; Caudill, R.; Johnston, B.; Turvey, C.; Mishkind, M.; Krupinski, E.; Myers, K.; Shore, P.; Kaftarian, E.; Hilty, D. (2018)	Best Practices in Videoconferencing-Based Telemental Health April 2018	United States	Virtual mental health care environment	This article consolidates guidance from ATA and APA on telemental health, emphasizing its effectiveness and providing recommendations for safe and effective implementation based on expert consensus and research evidence	Healthcare practitioners	Providers should conduct telehealth needs assessment before initiating service; these assessments should include: program overview statement, services to be delivered, proposed patient population, provider resources, technology needs, staffing needs, quality and safety protocols, business and regulatory processes, space requirements, training needs, evaluation plan, and sustainability	**N/A**	**N/A**	Providers should comply with state licensure laws, and follow regulations regarding scope of practice, prescribing, etc.
Smith, K.; Ostinelli, E.; Macdonald, O.; Cipriani, A. (2020)	COVID-19 and telepsychiatry: Development of evidence-based guidance for clinicians	United Kingdom and United States	Virtual mental health care environment	This paper provides a comprehensive synthesis of guidance on telepsychiatry during the COVID-19 pandemic, addressing various clinical questions and practical considerations. It highlights the need for cultural change and a hybrid approach combining telepsychiatry with other technologies for successful implementation in mental	Clinician	They should prepare patients with relevant information before consultation, discuss emergency plans with patient and document appropriately post-session.	**N/A**	**N/A**	Before consultations, providers should consult relevant guidelines, consider information governance.

				healthcare.					
Stoll, J.; Muller, J. A.; Trachsel, M. (2020)	Ethical Issues in Online Psychotherapy: A Narrative Review	N/A	Virtual mental health care environment	This comprehensive review examines the ethical arguments for and against online psychotherapy, highlighting key factors such as increased access, privacy concerns, therapist competence, and research gaps. The findings aim to inform practitioners, enhance ethical guidelines, and stimulate further discussion in this growing field.	Therapist	Online therapy may lead to better and more immediate care for patients, while possibly allowing for increased frequency of appointments between caregiver and patient. Online psychotherapy can be used either as an alternative to in-person treatment, or alongside in-person treatment. It may also protect patient's anonymity as they won't be seen entering/exiting offices	Online psychotherapy may increase and better access to health care services for people previously underserved, e.g. those living in remote/rural areas/ with mobility challenges, etc., with greater flexibility	Online psychotherapy found to be more cost-efficient compared to in-person appointments, because one therapist can reach more patients.	Online psychotherapy more convenient and comfortable to patients and therapists alike and allows for more flexibility with respect to location. It is also easier to create records/ transcripts of appointments with virtual methods, allowing for greater accountability and use of materials for supervision/teaching
Summer, G.; Adelman, D. S.; Fant, C. (2021)	COVID-19 and telehealth: How to complete a successful telehealth visit	United States	Virtual mental health care environment	This article examines patient and provider dynamics in telehealth using the Four Habits Model, based on real-life telehealth experiences.	Nurse practitioners	NPs should quickly establish rapport, explore patients concerns and deliberately use beginning few minutes of conversation to "design the visit" through visual/ non-verbal cues. Assess how patients understand/feel their illness, what patients	**N/A**	**N/A**	**N/A**

						hope to get out of visit and ascertain what impact the illness has on patient. Display empathy and 'invest' in the end: deliver diagnostic info using patient's earlier words where possible, provide education and joint-decision making, and close the visit while alluding to the next visit			
Turvey, C.; Coleman, M.; Dennison, O.; Drude, K.; Goldenson, M.; Hirsch, P.; Jueneman, R.; Kramer, G. M.; Luxton, D. D.; Maheu, M. M.; Malik, T. S.; Mishkind, M. C.; Rabinowitz, T.; Roberts, L. J.; Sheeran, T.; Shore, J. H.; Shore, P.; Van Heeswyk, F.; Wreggleswort h, B.; Yellowlees, P.; Zucker, M. L.; Krupinski, E. A.; Bernard, J. (2013)	ATA practice guidelines for video-based online mental health services	United States	Virtual mental health care environment	This paper provides clinical, technical, and administrative guidelines for internet-based telemental health, covering various aspects such as patient appropriatenes s, informed consent, communication and privacy.	Mental health providers	Assess patient appropriateness for virtual care via videoconferencing, etc. Let patients set up calls by themselves, Review changes in side effects	**N/A**	**N/A**	Professionals should review discipline definitions of 'competence' in their jurisdiction and know well local laws regarding involuntary mental health hospitalizations
Van Daele, Tom; Karekla, Maria; Kassianos, Angelos P.; Compare, Angelo; Haddouk, Lise; Salgado, João; Ebert, David D.; Trebbi, Glauco; Bernaerts, Sylvie; Van	Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond	Europe (unspecified)	Virtual mental health care environment	Addresses the increased need for telepsychother apy during the COVID-19. It focuses on utilizing technology in psychotherape utic practice, integrating e-mental health into the healthcare	Psychotherapi st	Psychotherapists should acknowledge reluctances to switch to virtual care services. Be extra cautious towards youth/ people with intellectual disabilities who are using e-mental health, to ensure that they are still receiving adequate care even if care is no longer in person. Tailor treatments to patients	**N/A**	**N/A**	Providers should implement strong boundaries to ensure healthy work life balance. they should also make sure that they're only working within their jurisdiction

Assche, Eva; De Witte, Nele A. J. (2020)				system, and developing e-mental health applications.					
Webb, C.; Orwig, J. (2015)	Expanding our Reach: Telehealth and Licensure Implications for Psychologists	United States	Virtual mental health care environment	This article examines the background and history of the ASPPB's Principles and Standards for Telepsychology, describing their application and coordination with APA guidelines.	Psychologists	Providers providing virtual psychology services will be held to same standards as those providing in-person services. Psychologists will consult with patients regarding any technical difficulties. They will also verify identities	**N/A**	**N/A**	**N/A**
Xiang, Y. T.; Zhao, N.; Zhao, Y. J.; Liu, Z.; Zhang, Q.; Feng, Y.; Yan, X. N.; Cheung, T.; Ng, C. H. (2020)	An overview of the expert consensus on the mental health treatment and services for major psychiatric disorders during COVID-19 outbreak: China's experiences	China	Virtual mental health care recommendations for providers during COVID-19 outbreaks	This review summarizes expert consensus on mental health treatment for severe psychiatric disorders during the COVID-19 outbreak in China. It provides guidance for psychiatric services and internet-based mental health services during the pandemic, which may be relevant to other countries.	Doctors	**N/A**	Patients with mental health concerns may be struggling to take care of themselves in the pandemic	**N/A**	Provide regular training on COVID-19 diagnosis for hospital staff. Strictly adhere to rules and regulations regarding Covid-19
Yellowlees, P.; Shore, J.; Roberts, L.	Practice guidelines for videoconferencing-based telemental health - October 2009	United States	Virtual mental health care environment	This study explores the applications of telemedicine in the field of telemental health, including clinical assessments, emergency evaluations, case management,	Physician	Patients should have sufficient technological competency to navigate computer applications and websites, share information/files/documents, send messages, etc.	**N/A**	**N/A**	Providers should be aware of potential legal issues

				clinical supervision, distance learning, research, and administrative services. Guidelines for the practice of telemental health, addressing standard operating procedures, and clinical specifications.					

Appendix A: Search Strategies

Summary of Results per Database

Database	**Date Searched**	**Number of Results**
Medline (Ovid)	July 20, 2022	887
Embase (Ovid)	July 21, 2022	1425
PsycINFO (Ovid)	July 20, 2022	271
Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (Ovid)	July 22, 2022	79
CINAHL (Ebscohost)	July 22, 2022	658
Scopus	July 22, 2022	630
Total Number of Results		**3,950**
Total Number of Results after de-duplication in EndNote		**2,769**

We searched using a comprehensive combination of subject headings and keywords, adapted for each database, for the concepts telemedicine and mental illnesses, combined with adapted search filters designed to retrieve guidelines that was created by the Canadian Agency for Drugs and Technology in Health [CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca. Accessed 2022-7-21.]

The results were limited to English language; commentaries, letters, editorials, book reviews, conference proceedings were excluded.

The above listed databases were searched from 2010 to the present on July 20-22, 2022

There were 3,950 total results. Following duplicate record removal in EndNote there were 2,769 results.

ST. JOSEPH'S · ST. MICHAEL'S · PROVIDENCE
UNITY HEALTH TORONTO

Search Histories:

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations <1946 to July 19, 2022>

1 mental disorders/ or exp anxiety disorders/ or exp "bipolar and related disorders"/ or exp "disruptive, impulse control, and conduct disorders"/ or exp dissociative disorders/ or exp "feeding and eating disorders"/ or exp mood disorders/ or exp tic disorders/ or neurotic disorders/ or exp personality disorders/ or exp "schizophrenia spectrum and other psychotic disorders"/ or exp somatoform disorders/ or exp "trauma and stressor related disorders"/ 639467
2 Mentally Ill Persons/ 6395
3 Mental Health/ 54136
4 psychotherapy/ or exp behavior therapy/ or emotion-focused therapy/ or exp feedback, psychological/ or interpersonal psychotherapy/ or person-centered psychotherapy/ or exp psychoanalytic therapy/ or psychosocial intervention/ or exp psychotherapeutic processes/ or psychotherapy, brief/ or psychotherapy, multiple/ or psychotherapy, psychodynamic/ or psychotherapy, rational-emotive/ or reality therapy/ or socioenvironmental therapy/ or exp psychotherapy, group/ or therapeutic alliance/ 184009
5 Counseling/ 38736
6 psychiatric rehabilitation/ or mental health recovery/ or mental health services/ or exp emergency services, psychiatric/ or social work, psychiatric/ 42495
7 affective symptoms/ or depression/ or exp stress, psychological/ or exp compulsive behavior/ or exp anger/ or anxiety/ or self-injurious behavior/ or suicidal ideation/ or suicide, attempted/ 393283
8 Psychology, Clinical/ 3242
9 psychiatry/ or community psychiatry/ or psychoanalysis/ or psychosomatic medicine/ 58258
10 Community Mental Health Services/ or exp Community Mental Health Centers/ 21937
11 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw,kf. 1555083
12 or/1-11 1924016
13 telemedicine/ 34108
14 Videoconferencing/ 2246
15 remote consultation/ 5556
16 (telecommunications/ or telephone/ or exp cell phone/ or computer communication networks/ or internet/ or internet access/ or internet-based intervention/) and (professional-patient relations/ or nurse-patient relations/ or physician-patient relations/) 3019

17 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 38890
18 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 6302
19 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 567
20 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 122
21 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 41
22 or/13-21 69259
23 Distance Counseling/ 76
24 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 1534
25 (12 and 22) or 23 or 24 14698
26 exp clinical pathway/ 7549
27 exp clinical protocol/ 185333
28 clinical protocols/ 29712
29 exp consensus/ 18793
30 exp consensus development conference/ 12614
31 exp consensus development conferences as topic/ 2996
32 critical pathways/ 7549
33 exp guideline/ 37125
34 guidelines as topic/ 42015
35 exp practice guideline/ 29915
36 practice guidelines as topic/ 127363
37 health planning guidelines/ 4164
38 exp treatment guidelines/ 0
39 Clinical Decision Rules/ 870
40 (guideline or practice guideline or consensus development conference or consensus development conference, NIH).pt. 46980
41 (position statement* or policy statement* or practice parameter* or best practice*).ti,ab,kf. 42012
42 (standards or guideline or guidelines).ti,kf. 127739
43 ((practice or treatment* or clinical) adj guideline*).ab. 48691
44 (CPG or CPGs).ti. 6243
45 consensus*.ti,kf. 32034
46 consensus*.ab. /freq=2 31214
47 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).ti,ab,kf. 24588
48 recommendat*.ti,kf. or guideline recommendation*.ab. 54139
49 (care adj2 (standard or path or paths or pathway or pathways or map or maps or plan or plans)).ti,ab,kf. 75520

50 (algorithm* adj2 (screening or examination or test or tested or testing or assessment* or diagnosis or diagnoses or diagnosed or diagnosing)).ti,ab,kf. 9323
51 (algorithm* adj2 (pharmacotherap* or chemotherap* or chemotreatment* or therap* or treatment* or intervention*)).ti,ab,kf. 11926
52 (guideline* or standards or consensus* or recommendat*).au. 557
53 (guideline* or standards or consensus* or recommendat*).co. 0
54 (guideline* or standards or consensus* or recommendat*).ca. 1257
55 or/26-54 [Guidelines - Broad - MEDLINE, Embase, PsycInfo. In: CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca/link/26. Accessed 2022-06-02.] 712083
56 25 and 55 1109
57 limit 56 to "all child (0 to 18 years)" 182
58 limit 57 to "all adult (19 plus years)" 103
59 56 not (57 not 58) 1030
60 limit 59 to english language 1004
61 limit 60 to yr="2010 -Current" 889
62 remove duplicates from 61 887

APA PsycInfo <1987 to July Week 2 2022>

1 online therapy/ 3690
2 telepsychiatry/ or telepsychology/ 741
3 (distance counselling or distance counseling).tw. 47
4 (telemental health* or Tele mental health* or telepsych* or tele psych*).tw. 1405
5 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 966
6 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 91
7 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 32
8 or/1-7 5791
9 mental disorders/ or exp affective disorders/ or exp anxiety disorders/ or exp bipolar disorder/ or borderline states/ or exp chronic mental illness/ or exp dissociative disorders/ or exp eating disorders/ or exp personality disorders/ or exp psychosis/ or serious mental illness/ or exp somatoform disorders/ or exp "stress and trauma related disorders"/ or exp thought disturbances/ 487135
10 psychiatric patients/ 17465
11 mental health/ 75194
12 exp psychotherapy/ or exp cognitive therapy/ 186110
13 counseling/ or group counseling/ or exp psychotherapeutic counseling/ 41702
14 exp mental health services/ or community mental health centers/ 43014
15 clinical psychology/ 7117
16 suicidal ideation/ or attempted suicide/ or suicidality/ 20146
17 exp self-injurious behavior/ 6576

18 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw. 1326305

19 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 1424019

20 telemedicine/ or exp teleconferencing/ or teleconsultation/ 7922

21 digital interventions/ 955

22 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw. 8298

23 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 4350

24 20 or 21 or 22 or 23 16820

25 19 and 24 8646

26 8 or 25 12110

27 exp treatment guidelines/ 8469

28 best practices/ 5895

29 (standard or standards or guideline*).ti. 16652

30 (standard or standards or guideline* or best practice* or consensus or recommendation*).ti. 28578

31 (position statement* or policy statement* or practice parameter*).tw. 1791

32 ((practice or treatment* or clinical) adj guideline*).ab. 8621

33 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).tw. 2320

34 guideline recommendation*.ab. 435

35 (care adj2 (standard or path or paths or pathway or pathways or map or maps or plan or plans)).tw. 9778

36 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 56132

37 26 and 36 480

38 limit 37 to (100 childhood <birth to age 12 yrs> or 120 neonatal <birth to age 1 mo> or 140 infancy <2 to 23 mo> or 160 preschool age <age 2 to 5 yrs> or 180 school age <age 6 to 12 yrs> or 200 adolescence <age 13 to 17 yrs>) 58

39 limit 38 to ("300 adulthood <age 18 yrs and older>" or 320 young adulthood <age 18 to 29 yrs> or 340 thirties <age 30 to 39 yrs> or 360 middle age <age 40 to 64 yrs> or "380 aged <age 65 yrs and older>" or "390 very old <age 85 yrs and older>") 20

40 38 not 39 38

41 37 not 40 442

42 limit 41 to (chapter or "column/opinion" or "comment/reply" or dissertation or editorial or letter or review-book) 73

43 41 not 42 369
44 limit 43 to (english language and yr="2010 -Current") 271

Embase Classic+Embase <1947 to 2022 July 20>

1 mental disease/ or exp anxiety disorder/ or exp dissociative disorder/ or exp emotional disorder/ or exp mood disorder/ or exp neurosis/ or exp personality disorder/ or exp psychosis/ or exp psychosomatic disorder/ or exp psychotrauma/ or exp schizophrenia spectrum disorder/ or exp thought disorder/ 1771301
2 eating disorder/ or anorexia nervosa/ or binge eating disorder/ or bulimia/ 56644
3 exp suicidal behavior/ 122831
4 mental patient/ 31222
5 mental health/ 182501
6 psychotherapy/ or exp behavior therapy/ or client centered therapy/ or exp cognitive therapy/ or couple therapy/ or emotion-focused therapy/ or "eye movement desensitization and reprocessing"/ or family therapy/ or gestalt therapy/ or group therapy/ or interpersonal psychotherapy/ or marital therapy/ or psychodynamic psychotherapy/ or psychosocial intervention/ or rational emotive behavior therapy/ or reality therapy/ or short term psychotherapy/ or solution-focused therapy/ 223799
7 psychological counseling/ 436
8 mental health care/ or psychosocial care/ 52890
9 community mental health service/ or mental health service/ 65935
10 clinical psychology/ 6856
11 psychiatry/ or emergency psychiatry/ 81615
12 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw,kf. 2124174
13 or/1-12 3057114
14 telehealth/ or telecare/ or telenursing/ 14670
15 telemedicine/ or video consultation/ 38819
16 teleconsultation/ 13704
17 exp mobile phone/ or telephone/ or web conferencing/ 83788
18 videoconferencing/ 7221
19 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 56379
20 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 9020

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21 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 765
22 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 125
23 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 50
24 or/14-23 170964
25 13 and 24 36472
26 telepsychiatry/ or telepsychology/ or teletherapy/ or telepsychotherapy/ or e-counseling/ 3051
27 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 1758
28 25 or 26 or 27 38731
29 (guideline* or standards or consensus* or recommendat*).ti. 232472
30 (practice parameter* or position statement* or policy statement* or CPG or CPGs or best practice*).ti. 21268
31 (care adj2 (path or paths or pathway or pathways or map or maps or plan or plans or standard)).ti. 11960
32 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).ti. 5963
33 (guideline* or standards or consensus* or recommendat*).au. 26
34 (guideline* or standards or consensus* or recommendat*).co. 1860
35 systematic review.ti,pt,kf,sh. and (practice guideline* or treatment guideline* or clinical guideline* or guideline recommendation*).ti,ab,kf. 7561
36 guidelines as topic/ 463763
37 exp practice guideline/ 653366
38 practice guidelines as topic/ 397009
39 health planning guidelines/ 105973
40 or/29-39 [CADTH Guidelines Search Filters, Adapted] 901280
41 28 and 40 2873
42 limit 41 to (infant <to one year> or child <unspecified age> or preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>) 354
43 limit 42 to (adult <18 to 64 years> or aged <65+ years>) 142
44 42 not 43 212
45 41 not 44 2661
46 limit 45 to (books or chapter or conference abstract or conference paper or "conference review" or editorial or letter) 711
47 45 not 46 1950
48 limit 47 to (english language and yr="2010 -Current") 1592
49 limit 48 to embase 1425

Search History
Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Complete

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#	Query	Limiters/Expanders	Results
S26	S24 NOT S25	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	658
S25	S24	Limiters - Publication Type: Book, Book Chapter, Book Review, Commentary, Doctoral Dissertation, Editorial, Letter, Masters Thesis, Proceedings, Response Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	30
S24	S22 AND S23	Limiters - Published Date: 20100101-20231231; English Language Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	688
S23	MH Critical Path or MH Practice Guidelines or PT (practice guidelines or standards or protocol or critical path or care plan) or TI ("position statement*" or "policy statement*" or "practice parameter*" or "best practice*") OR AB ("position statement*" or "policy statement*" or "practice parameter*" or "best practice*") or TI (standards or guideline or guidelines) or AB (practice N1 guideline* or treatment* N1 guideline*) or TI (CPG or CPGs) or TI consensus* or AB consensus* or AU (guideline* or standards or consensus* or recommendat*) or CA (guideline* or standards or consensus* or recommendat*) or TI (critical N2 path or critical N2 paths or critical N2 pathway or critical N2 pathways or critical N2 protocol* or clinical N2 path or clinical N2 paths or clinical N2 pathway or clinical N2 pathways or clinical N2 protocol* or practice N2 path or practice N2 paths or practice N2 pathway or practice N2 pathways or practice N2 protocol*) or AB (critical N2 path or critical N2 paths or critical N2 pathway or critical N2 pathways or critical N2 protocol* or clinical N2 path or clinical N2 paths or clinical N2 pathway or clinical N2 pathways or clinical N2 protocol* or practice N2 path or practice N2 paths or practice N2 pathway or practice N2 pathways or practice N2 protocol*) or TI recommendat* or TI (care N2 path or care N2 paths or care N2 pathway or care N2 pathways or care N2 map or care N2 maps or care N2 plan or care N2 plans or care N2 standard*) or AB (care N2 path or care N2 paths or care N2 pathway or care N2 pathways or care N2 map or care N2 maps or care N2 plan or care N2 plans or care N2 standard*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase *Note – the is a modified version of* *Guidelines - Broad - CINAHL. In: CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca/link/74. Accessed 2022-07-22.* *The search strings for algorithms at the end wereremoved*	307,665
S22	S1 OR S21	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	12,322
S21	S9 AND S20	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	11,973
S20	S10 OR S11 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	55,833
S19	(mental healthcare N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	114
S18	(mental health care N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	114
S17	(psychotherap* N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	321

S16	(therap* N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	10,636
S15	(telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	38,830
S14	S12 AND S13	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	2,595
S13	(MH "Telecommunications") OR (MH "Internet") OR (MH "Email") OR (MH "Internet-Based Intervention") OR (MH "Internet Access") OR (MH "Telephone+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	87,445
S12	(MH "Professional-Patient Relations") OR (MH "Physician-Patient Relations") OR (MH "Professional-Client Relations+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	79,307
S11	(MH "Videoconferencing") OR (MH "Teleconferencing")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	4,705
S10	(MH "Telehealth") OR (MH "Telemedicine") OR (MH "Remote Consultation") OR (MH "Telenursing")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	30,965
S9	S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	985,913
S8	(mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	907,260
S7	(MH "Psychology, Clinical")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	1,074
S6	(MH "Eating Disorders") OR (MH "Anorexia") OR (MH "Anorexia Nervosa") OR (MH "Binge Eating Disorder") OR (MH "Bulimia") OR (MH "Bulimia Nervosa") OR (MH "Self-Injurious Behavior") OR (MH "Suicidal Ideation") OR (MH "Suicide, Attempted") OR (MH "Depression") OR (MH "Anxiety")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	184,160
S5	(MH "Mental Health Services") OR (MH "Counseling") OR (MH "Couples Counseling") OR (MH "Emergency Services, Psychiatric+") OR (MH "Social Work, Psychiatric")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	73,532
S4	(MH "Mental Health")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	50,531
S3	(MH "Psychotherapy") OR (MH "Behavior Therapy+") OR (MH "Desensitization, Psychologic+") OR (MH "Crisis Intervention") OR (MH "Interpersonal Psychotherapy") OR (MH "Mentalization-Based Therapy") OR (MH "Psychosocial Intervention") OR (MH "Psychotherapy, Brief+") OR (MH "Psychotherapy, Psychodynamic") OR (MH "Reality Therapy") OR (MH "Psychotherapy, Group") OR (MH "Family Therapy") OR (MH "Psychopharmacology")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	78,370

S2	(MH "Mental Disorders") OR (MH "Adjustment Disorders+") OR (MH "Mental Disorders, Chronic") OR (MH "Neurotic Disorders+") OR (MH "Organic Mental Disorders, Psychotic") OR (MH "Personality Disorders+") OR (MH "Psychotic Disorders+") OR (MH "Psychiatric Emergencies") OR (MH "Psychological Trauma+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	376,717
S1	(MH "Telepsychiatry")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	618

Scopus

630 document results

((ABS ("treatment guideline*" OR "practice guideline*" OR "treatment guideline*" OR "clinical guideline*" OR "guideline recommendation*")) OR ((TITLE (care W/2 standard*) OR ABS (care W/2 standard*))) OR (TITLE (standard OR standards OR guideline* OR "best practice*" OR consensus OR recommendation* OR "position statement*" OR "policy statement*" OR "practice parameter*"))) AND ((TITLE-ABS-KEY (("telemental health*" OR "tele mental health*" OR telepsych* OR "tele psych*"))) OR (((TITLE-ABS-KEY (therap* W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY (psychotherap* W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY (telemedicine OR "tele-medicine" OR telehealth* OR "tele health*" OR "remote consult*" OR "virtual care" OR "virtual mental health" OR "virtual delivery" OR "virtual health*" OR "virtual primary care" OR "virtual service*" OR "phone call*" OR "telephone call*")) OR (TITLE-ABS-KEY ("mental health care" W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY ("mental healthcare" W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital)))) AND (TITLE-ABS (("mental health" OR "mental illness*" OR "mentally ill" OR "mental disorder*" OR psychiatr* OR psycholog* OR psychosis OR psychotic OR psychoses OR bipolar OR depression OR depressive OR anxiety OR schizophreni* OR ptsd OR "post traumatic" OR posttraumatic OR "stress disorder*" OR suicidal OR "attempt* suicide" OR "suicide attempt*" OR "self harm" OR "self injur*" OR counselling OR counseling OR psychotherap* OR "behaviour* therap*" OR "behavior* therap*" OR "cognitive therap*" OR "obsessive compulsive disorder*" OR ocd OR "panic disorder*" OR "phobic disorder*" OR anorexi* OR "binge eating" OR bulimi* OR "mood disorder*" OR "personality disorder*" OR "dissociative disorder*" OR "eating disorder*" OR "schizoaffective disorder*" OR "affective disorder*"))))) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017) OR LIMIT-TO (PUBYEAR , 2016) OR LIMIT-TO (PUBYEAR , 2015) OR LIMIT-TO (PUBYEAR , 2014) OR LIMIT-TO (PUBYEAR , 2013) OR LIMIT-TO (PUBYEAR , 2012) OR LIMIT-TO (PUBYEAR , 2011) OR LIMIT-TO (PUBYEAR , 2010)) AND (LIMIT-TO (LANGUAGE , "English")) AND (EXCLUDE (DOCTYPE , "cp") OR EXCLUDE (DOCTYPE , "le") OR EXCLUDE (DOCTYPE , "no") OR EXCLUDE (DOCTYPE , "ed") OR EXCLUDE (DOCTYPE , "ch") OR EXCLUDE (DOCTYPE , "cr"))

EBM Reviews - Cochrane Central Register of Controlled Trials <June 2022>
EBM Reviews - Cochrane Database of Systematic Reviews <2005 to July 20, 2022>

1 mental disorders/ or exp anxiety disorders/ or exp "bipolar and related disorders"/ or exp "disruptive, impulse control, and conduct disorders"/ or exp dissociative disorders/ or exp "feeding and eating disorders"/ or exp mood disorders/ or exp tic disorders/ or neurotic disorders/ or exp personality disorders/ or exp "schizophrenia spectrum and other psychotic disorders"/ or exp somatoform disorders/ or exp "trauma and stressor related disorders"/ 41573
2 Mentally Ill Persons/ 60
3 Mental Health/ 1932
4 psychotherapy/ or exp behavior therapy/ or emotion-focused therapy/ or exp feedback, psychological/ or interpersonal psychotherapy/ or person-centered psychotherapy/ or exp psychoanalytic therapy/ or psychosocial intervention/ or exp psychotherapeutic processes/ or psychotherapy, brief/ or psychotherapy, multiple/ or psychotherapy, psychodynamic/ or psychotherapy, rational-emotive/ or reality therapy/ or socioenvironmental therapy/ or exp psychotherapy, group/ or therapeutic alliance/ 24097
5 Counseling/ 4546
6 psychiatric rehabilitation/ or mental health recovery/ or mental health services/ or exp emergency services, psychiatric/ or social work, psychiatric/ 886
7 affective symptoms/ or depression/ or exp stress, psychological/ or exp compulsive behavior/ or exp anger/ or anxiety/ or self-injurious behavior/ or suicidal ideation/ or suicide, attempted/ 27376
8 Psychology, Clinical/ 30
9 psychiatry/ or community psychiatry/ or psychoanalysis/ or psychosomatic medicine/ 219
10 Community Mental Health Services/ or exp Community Mental Health Centers/ 860
11 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).ti. 101111
12 or/1-11 137305
13 telemedicine/ 2734
14 Videoconferencing/ 220
15 remote consultation/ 390
16 (telecommunications/ or telephone/ or exp cell phone/ or computer communication networks/ or internet/ or internet access/ or internet-based intervention/) and (professional-patient relations/ or nurse-patient relations/ or physician-patient relations/) 178
17 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 11805

18 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 3430
19 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 252
20 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 24
21 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 3
22 or/13-21 17434
23 Distance Counseling/ 22
24 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 201
25 (12 and 22) or 23 or 24 4222
26 (standards or guideline* or "best practice*" or consensus or recommendation* or "position statement*" or "policy statement*" or "practice parameter*").m_titl. 5638
27 ("treatment guideline*" or "practice guideline*" or "treatment guideline*" or "clinical guideline*" or "guideline recommendation*").tw. 8830
28 (care adj2 standard*).m_titl. 2685
29 26 or 27 or 28 16057
30 25 and 29 100
31 remove duplicates from 30 100
32 limit 31 to yr="2010 -Current" 79

PRISMA Reporting Checklist for:

Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Line 3
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	See checklist
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Line 130
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Line 156
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Line 208
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Line 210
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Appendix A
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Line 224
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Line 224, Line 233
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Line 244
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Line 244
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	N/A
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	N/A
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	208
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	N/A
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Table 2
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Line 244
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A

PRISMA Reporting Checklist for:

Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
assessment			
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Line 266
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Line 272
Study characteristics	17	Cite each included study and present its characteristics.	Table 2
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	N/A; not required in rapid review
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	N/A
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	N/A
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Line 460
	23b	Discuss any limitations of the evidence included in the review.	Line 525
	23c	Discuss any limitations of the review processes used.	Line 525
	23d	Discuss implications of the results for practice, policy, and future research.	Line 545
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Not registered
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Protocol not prepared
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	563

PRISMA Reporting Checklist for:

Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
Competing interests	26	Declare any competing interests of review authors.	566
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	All data available in manuscript and supplementary information

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

PRISMA 2020 for Abstracts Checklist

Section and Topic	Item #	Checklist item	Reported (Yes/No)
TITLE			
Title	1	Identify the report as a systematic review.	YES
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	YES
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	YES
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when eachwas last searched.	YES
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	NO
Synthesis of results	6	Specify the methods used to present and synthesise results.	YES
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	YES
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparinggroups, indicate the direction of the effect (i.e. which group is favoured).	YES
DISCUSSION			
Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	YES
Interpretation	10	Provide a general interpretation of the results and important implications.	YES
OTHER			
Funding	11	Specify the primary source of funding for the review.	YES
Registration	12	Provide the register name and registration number.	YES

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematicreviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

BMJ Open

Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2023-079244.R1
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Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

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Abstract

Objectives

This study reviewed existing recommendations for virtual mental healthcare services through the Quadruple Aim framework to create a set of recommendations on virtual healthcare delivery to guide the development of Canadian policies on virtual mental health services.

Design

We conducted a systematic rapid review with qualitative content analysis of data from included manuscripts. The Quadruple Aim framework, consisting of improving patient experience and provider satisfaction, reducing costs, and enhancing population health, was used to analyze and organize findings.

Methods

Searches were conducted using seven databases from January 2010 to July 22, 2022. We used qualitative content analysis to generate themes.

Results

The search yielded 40 articles. Most articles (85%) discussed enhancing patient experiences, 55% addressed provider experiences and population health, and 25% focused on cost reduction. Identified themes included: screen patients for appropriateness of virtual care; obtain emergency contact details; communicate transparently with patients; improve marginalised patients' access to care; support health equity for all patients; determine the cost-effectiveness of virtual care; informing patients of insurance coverage for virtual care services; increase provider training for virtual care; set professional boundaries between providers and patients.

Conclusions

This rapid review identified important considerations that can be used to advance virtual care policy to support people living with mental health conditions in a high-income country.

Article summary

Strengths and Limitations of this study (5 bullet points)

- Extraction of data on virtual healthcare from wide range of sources that were analyzed using the Quadruple Aim framework
- Engagement of people with lived experience with mental illness in study design
- Recommendations for patient/provider experience and population health
- Omission of non-English resources and research discussing asynchronous care
- 'Rapid' nature of review may have left some pertinent resources unexplored

Keywords:
Virtual Care, Mental Health, Health Services, Telehealth, Psychiatry

MAIN MANUSCRIPT

Introduction

Virtual delivery of ambulatory healthcare became widespread in high income countries after the onset of the COVID-19 pandemic, and its adoption has been sustained, even as guidance recommending its use has evolved. 'Virtual care' can be defined as "any interaction between patients and/or members of their circle of care, occurring remotely, using any forms of communication or information technologies, with the aim of facilitating or maximizing the quality and effectiveness of patient care"(1). In Canada, there was an overall 56-fold increase in the use of virtual care, comprising 71% of primary care visits in the first months of the COVID-19 pandemic (2). Similarly, in international settings there has been a 38 times increased volume of virtual care in healthcare, when compared with pre-pandemic use (3). Furthermore, this increased volume has persisted, years after the pandemic onset (4).

Although there has been a steady return to in-person care due to vaccination and other public health measures decreasing the risk of severe COVID-19 disease, virtual delivery has become the default modality for many health concerns, particularly mental health. Mental health concerns are common; about 20% of people will have a mental health issue in any given year (5). In most settings, primary care is the first point of access for mental health services(6), and common mental illnesses such as anxiety and depression are the most frequent conditions for which people seek out primary care services (7,8). Virtual care has been reported to be as accurate from a diagnostic perspective for simple diagnoses not requiring in-person physical examinations (9) but there is limited evidence about the diagnostic accuracy or effectiveness virtual care delivery related to mental health conditions.

Despite the rapid and sustained proliferation of virtual care across healthcare settings, there has been no attempt to bring together existing recommendations and peer-reviewed guidelines for virtual care delivery of mental health services. The Quadruple Aim is an established health quality framework that includes the following pillars: improving patient and caregiver experiences, reducing costs, supporting population health, and improving provider experiences (10). It has been used in health services research to determine the priorities of different populations within the health care setting (11,12), but to our knowledge has not been used to understand virtual care recommendations in high-income settings. For this reason, we conducted a rapid review to identify recommendations for virtual delivery of mental health services to adults in high income countries, using the Quadruple Aim to guide our analysis and synthesis of the results.

Methods

We used rapid review methodology to search for, review, and organize mental health standards from international sources. A rapid review is a form of knowledge synthesis that accelerates the process of conducting a traditional systematic review through streamlining or omitting specific methods to produce evidence for stakeholders in a resource-efficient manner. We chose this over a traditional systematic or scoping review because we wanted to quickly generate evidence that could be used in a policymaking process to develop national standards for virtual delivery of mental health services in Canadian primary care; this manuscript reports results of the first phase of that rapid-cycle project (13), which

subsequently went on to conduct focus groups and interviews and extensive policy review to generate a list of standards. We followed Cochrane Methods Rapid Reviews guidance (14) as well as Tricco et al's specific recommendations for conducting rapid reviews related to the COVID-19 pandemic (15). Our rapid literature review was conducted in line with the principles outlined in (16), as there is currently no dedicated reporting checklist specifically tailored for rapid reviews within the existing landscape. In order to uphold a thorough and transparent reporting process, we consciously opted to align our reporting framework with the widely recognized PRISMA guidelines, a framework well-suited to our chosen review methodology. We employed the PRISMA checklist by (17) to ensure all pertinent sections and topics were included and also checklist for the abstract to meticulously encompass all pertinent sections and topics within the manuscript. (Checklist can be found in the supplementary documents as Appendix A and B).

Our overall aim was to identify recommendations for virtual delivery of mental health services to adults in high income countries. Within the literature, virtual mental health care services are referred to using a variety of terms, including but not limited to: telemental health, telepsychiatry and psychiatric telehealth. In this manuscript, we use the term "virtual mental health services", which we define as, " …the use of telecommunications […such as telephones…] or videoconferencing technology to provide mental health services" (18).

We focused on synchronous care, where the patient and provider are meeting in real time (19). We searched for peer-reviewed literature to identify guidance and recommendations for virtual mental health in primary care settings. We did not limit the search regarding specific mental health conditions. References had to make specific recommendations for virtual health care services in ambulatory settings such as psychiatry, family medicine and/or primary care. We intentionally kept the inclusion criteria broad and included resources that did not necessarily relate exclusively to primary care because our initial discussions and preliminary exploration of the literature suggested that we may miss relevant resources if we limited exclusively to primary care. We excluded resources focused exclusively on substance use disorder diagnosis and management. We excluded resources related exclusively to asynchronous care that is self-directed and mobile health (also known as "mhealth") wearable technologies. In line with rapid review methodology we did not conduct a risk of bias assessment of included studies. In addition, the search was limited to high income countries to maximize the generalizability to the Canadian healthcare setting. Detailed inclusion/exclusion criteria are available in Table 1.

Table 1: Inclusion/exclusion criteria for review

Inclusion	Exclusion
• Guideline OR Recommendation • Any mental health condition (other than substance use) • Any study design • Phone visit AND/OR Video visit • Any ambulatory care setting (such as primary care, family medicine, psychiatry, 'virtual emergency department') • Any 'registered healthcare professional' (such as physicians, social workers, nurses, psychologists) • Published in English	• Apps; smartphone apps; mhealth; wearable technology, ehealth • Non-clinician delivered services • Children; < 18 years of age • Addictions (alcohol, tobacco, cannabis, or other substance use; process • addictions) • Neurodegenerative disorders; including dementia • Published before January 1, 2010 • Group psychotherapies • Care delivered asynchronously

• January 1, 2010-July 22, 2022 • Adults; populations ≥18 years of age • Developed for use in high income economies and upper middle-income economies (using World Bank list) (20)	

Our search strategy was developed in collaboration with an information specialist at Unity Health Toronto on our team (CZ). We included English-language articles, from both peer reviewed and grey literature, from any country on the World Bank list identified as high-income countries (17). We started with a systematic formalized database search of seven databases from January 2010 to July 22, 2022: All Medline (via Ovid), PsycINFO (Ovid), Embase (Ovid), Scopus, Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (EBM Reviews Ovid), and CINAHL (EBSCO host). We limited our search to resources published on or after Jan 1, 2010 because we assessed that limiting to this more recent literature would provide insights more likely to be generalizable to contemporary technologies. Our team included clinicians, researchers, people with lived experience of mental illness, from multiple Canadian provinces and the United Kingdom. The information specialist (CZ) performed the database searches (Appendix C), compiled and de-duplicated the results in EndNote.

Article Selection Process

We used Covidence review management software to enable reviewer pairs to screen articles. Title and abstract screening were conducted by two independent reviewers (LL, NE). If an abstract or summary was available, the reviewer conducted a brief full-text screening to assess eligibility. Any disagreement encountered in eligibility was resolved through discussion with a third reviewer (BO). Two independent reviewers (NE, AY) conducted full-text screening of each potentially relevant resource, and disagreements in eligibility were resolved through consensus with a third reviewer (BO).

Data extraction

Once full text articles were identified from the database searches, two team members' extracted data using a data extraction template which was tested and refined through team discussion and trialed with five previously identified resources. We extracted data related to: author and year, authors' location; specific setting in which the study was conducted/to which the guidelines or recommendations applied; study description; provider type; whether people with lived experience were involved in generation of recommendations; and the text of recommendations or guidance according to aspects of the Quadruple Aim (improving patient experience; improving population health; reducing costs; improving provider experience) (10).

Analysis and synthesis approach

We conducted directed content analysis of data extracted from included manuscripts (21). We used the Quadruple Aim as our initial categorization matrix (22). Two authors (NE and AY) read included manuscripts and extracted excerpts of text from the manuscripts that were related to each aspect of the Quadruple Aim. This was completed independently in parallel, and then three authors (NE, AY, BO) met and reviewed the excerpts together. Then one author (NE) reviewed each excerpt and generated codes from the textual excerpts, and then combined these into subcategories. Then, NE and BO met to review the subcategories and combined them into the 'themes' that are represented in the results section of

this manuscript. Throughout this process we discussed the emerging 'themes' at two project meetings, where multiple authors discussed the analysis and proposed slight alterations to the phrases or words used to describe particular phenomena. For example, we replaced 'special populations', a description of a theme related to data extracted under Quadruple Aim 2 ('improving population health') with 'equity-deserving groups' in the first instance and then further modified this to 'marginalized populations'.

Patient and Public Involvement

Two people with lived experience of mental health concerns (EA and another team member who chose not to be identified) were members of the study team and involved in a series of team meeting where we developed and approved the research question and search keywords. As themes were being developed, findings were regularly reviewed with the study team, which at that point included one person with lived experience of mental health concerns (EA) who provided substantive input on the final themes.

RESULTS

The primary search strategy identified 2760 records (Appendix C). Of these, 105 full text articles were screened and 40 articles met the eligibility criteria and were included in the analysis (Figure 1).

Included articles were published mostly in the United States (n=24; 60%) followed by other countries: Canada (n=2, 5%), South Africa (n=2, 5%), United Kingdom (n=2, 5%), China (n=1, 2.5%), Poland (n=1, 2.5%), Australia (n=1, 2.5%) Switzerland (n=1, 2.5), and Qatar (1). 5 articles (12.5%) did not specify a country of origin.

Most articles described the setting to which their recommendations or guidance applied in general terms as 'virtual mental health care' (n=29, 72.5%) or the 'mental health sector' (n=1, 2.5%) A few were more specific about the setting, such as a psychiatry clinic (n=2, 5%), geriatrics clinic (n=1, 2.5%), neuropsychology clinic (n=1, 2.5%), or a prison (n=1, 2.5%). One article described that it was applicable to 'virtual mental health care during COVID-19 outbreaks' (n=1, 2.5%). Two articles were focused on specific populations served by specialized clinics: one for people with bipolar disorder (n=1, 2.5%) and one for deaf patients (n=1, 2.5%).

With respect to the type of healthcare professional to which recommendations or guidance applied, 14 articles described this as for 'clinicians/healthcare professionals' in general (n=14, 35%). Eight articles were for psychologists (n=8, 20%). Four were focused on 'mental health clinicians/ practitioners/ providers (10%). Three were for physicians (7.5%) and three for psychiatrists (7.5%). Two articles were for psychotherapists (5%), two for nurse practitioners (5%), and two for primary care providers (5%). One article was for counsellors (2.5%), one for neuropsychologists (2.5%), and one for social workers (2.5%). One article did not have any description of the type of healthcare provider to which it was applicable (2.5%) (in total, this adds to >40 articles because several articles described multiple types of healthcare providers).

Appendix D shows the extracted data from all included studies. None of the included manuscripts reported that they had any patient or caregiver involvement in the development of guidelines or recommendations, so we did not include this in the Table.

The themes extracted for each quadruple aim are summarized in Figure 2.

Quadruple Aim 1: Improving Patient and Caregiver Experience

34 articles (85%) were found to have information related to Quadruple Aim 1. From data extracted related to this Aim, we identified three themes:

- Screen patients for appropriateness of virtual care (n=30, 75%)
- Obtain emergency contact details (n=5, 12.5%)
- Communicate transparently with patients (n=8, 20%)

Screen patients for appropriateness of virtual care

22 (52.5%) articles described the importance of, or methods for, assessing before virtual appointments to evaluate whether virtual care is a viable, useful method of care delivery for a patient's particular needs (23–44). For example, one article described the importance of establishing a 'relationship' between healthcare providers and patients to assess virtual care appropriateness (24); another three articles noted that patients generally have a positive view of psychological screening assessments conducted prior to a virtual visit (25–28).

Three articles (7.5%) listed criteria that providers should assess prior to a first virtual visit including: health care services the patient requires, resources available to providers and what is required for sustainable longitudinal care (29–31). One article suggested providers should also assess how their patients perceive their conditions (32), and four (n=7.5%) recommended asking what patients wish to gain from their appointment(s) (33–36).

Two articles (5%) noted that providers should assess potential risks of using virtual care for each patient, and whether providers and patients have appropriate technology for virtual appointments and patients' cognitive capacity to consent to virtual care (37,38). Three articles (7.5%) recommended providers should assess if patients have a safe environment to attend a virtual health care appointment (37,39,40). One article noted that sensory deficiencies, particularly visual and auditory, can impede patient capacity to engage in videocalls (41). Three articles (7.5%) noted that the most important consideration is whether patients want a virtual appointment or not (33,42–44).

Obtain emergency contact details

Three articles (7.5%) mentioned the importance of emergency contacts for verifying the patient's location, both to assess whether care could be provided in the context of licensure in that particular jurisdiction (for state licensure requirements) and for having knowledge on where to dispatch emergency services if a crisis were to happen during a virtual appointment (45–47). Two articles (5%) discussed the need for providers to engage in safety planning, such as what to do in case of self-harm, with their patient and document the plan, including emergency contacts, immediately after an initial appointment (48,49).

Communicate transparently with patients

Eight articles (20%) emphasized the need for transparent communication between patients and providers. One article stated generally that ethical and professional standards of care and practice should be maintained by psychologists throughout appointments (42). Five articles described that whether patients want to continue with virtual care after initially using it should be assessed on an ongoing basis, and the modality changed if requested (50–54). Two articles (5%) highlighted the importance of healthcare providers explicitly informing patients of the steps they take ensure confidentiality of their sessions (55,56).

Quadruple Aim 2: Improving Population Health

27 articles (67.5%) had information related to quadruple aim 2. Two major themes were identified:

- Improve marginalised patients' access to care (n=22, 52%)
- Support health equity for all patients (n=8, 20%)

Improve marginalised patients' access to care

22 included articles (52%) focused on improving marginalised patients' access to care, noting that technology has the potential to expand patient access to mental health services. Fourteen of these articles (36%) stated that virtual mental health services can facilitate patients' access to necessary services that they might not otherwise have, such as those living in rural areas where many lack access included articles (52%) focused on improving accessibility, noting that technology has the potential to expand patient access to mental health services. Fourteen articles (36%) also stated that virtual mental health services can facilitate patients' access to necessary services that they might not otherwise have, such as those living in rural areas where many lack access to in-person mental health therapy, or for individuals living with limited mobility or disability (23, 26, 29, 31, 37, 39, 40, 42, 47, 48, 53, 56-58).

Three articles (14%) noted virtual care could be useful for people who have diagnoses or for whom symptoms of their diagnoses might preclude attending in-person visits (38,43), including the provision of psychotherapy and education for patients with severe personality disorders (54). Two articles (12%) noted that using telepsychiatry to deliver mental health treatments could alleviate the provider shortage, having a direct impact on access to care (25,27,45,52). Stigma was also highlighted by one of the articles as a barrier to receiving care and that virtual modalities might ease access to care by reducing stigma experienced by patients accessing virtual services, through not having to go to a public place such as a hospital or clinic (36).

Support health equity for all patients

Another theme explored was supporting marginalized populations, those for whom access to (in-person) mental health care is limited for some reason, in achieving health equity. For example, one

article (2.5%) noted that virtual modalities can aid in providing deaf communities in the United States with services that are linguistically and culturally appropriate (51).

One article (2.5%) highlighted the ability of telepsychiatry to minimize health inequalities and contribute to health equality by reaching communities who would otherwise go unserved (57). Another discussed problems related to the 'digital divide' and how telepsychiatry cannot reach its therapeutic and equity-promoting potential if patients in need do not have access to or know how to use the internet (44).

Three articles (7.5%) described how virtual modalities could support the availability of mental health services through facilitating care from existing providers into new settings such as prisons (27,28,30) and one noted that a population of veterans preferred virtual mental health care due to stigma surrounding mental health within that community (36). One article (2.5%) noted the importance of tailoring safety plans to specific situations such as geographical or jurisdictional area (46), since there might be unique challenges related to specific marginalized populations.

Quadruple Aim 3: Reducing Costs

10 articles (25%) had information related to quadruple aim 3. Two major themes were identified:

- Determine the cost-effectiveness of virtual care (n=7, 17.5%)
- Informing patients of insurance coverage for virtual care services (n=3, 7.5%)

Determine the cost-effectiveness of virtual care

Seven articles (17.5%) discussed whether virtual care could be cost-effective. One (2.5%) described telemedicine as more cost-effective compared to in-person appointments, because it reduces patient-level costs related to time and travel for attending appointments (37). Another article (2.5%) reported that online psychotherapy could lower healthcare expenses for clients, therapists, and society since it is reportedly cost-effective, although they did not provide specific figures (39). Two articles suggested that virtual care could somehow reduce long waiting lists for face-to-face therapy, because a single therapist may be able to see more patients, and that this could result in greater cost effectiveness with more patients served for the same number of staff (39,51).

In one article (2.5%), virtual mental health care was linked to lower health care expenditures per capita because more patients with mental illnesses could receive more effective care which could result in fewer hospitalizations (28). Two articles (5%) on peer support interventions for social isolation and depression reported that virtual delivery required less clinician time, lowering per capita health care costs (37,52). Another article about a telepsychiatry program in prisons in the United States described between $12,000 and $1 million in cost savings after the implementation of remote programs (59). A review of virtual care visits across several countries reported a lower no-show rate than in-person visits (43).

Inform patients of insurance coverage for virtual care services

Three articles (7.5%) noted the importance for patients to know what virtual care services were and were not covered in their specific setting; one of these articles also noted the importance for providers

to understand how virtual care is dealt with in their compensation model (56). A review article of international literature from during the COVID-19 pandemic described the importance of patients having access to clear information about what their insurance covers regarding virtual mental health care (44), since this often differs from what in-person services are covered. One article from Poland noted in that country, virtual visits are paid the same as in-person visits, as long as they are not being used inappropriately in place of a needed in-person assessment (60).

Quadruple Aim 4: Improving Provider Experience

22 articles (55%) had information related to quadruple aim 4. We identified two major themes:

- Increase provider training for virtual care (n=10,25%)
- Set professional boundaries between providers and patients (n=15, 37.5%)

Increase provider training for virtual care

Ten articles (22.5%) focused on providing training for virtual care. Seven articles (17.5%) recommended that staff receive proper training and adopt an understanding and individualized communication approach (23,24,28,42–44,53). Two articles (5%) reported that providers should strengthen their communication skills by enrolling in training courses or programs (58,61). Another article (2.5%) noted the importance of physical comfort for providers, to avoid weariness and issues related to prolonged computer use (41).

Set professional boundaries between providers and patients

Fifteen articles (37.5%) described the importance of scheduling and anticipated response times related to appointment booking, and requests for urgent and or/asynchronous care. Eight articles (20%) noted that because virtual care can theoretically be provided at any time of day, it is essential for patients to have unambiguous information about the provider or service's working hours (29–31,39,45,49,60,61). Five articles (12.5%) recommended that providers and patients set a contract around an 'anticipated response time' related to when a patient reaches out to a provider, when they should expect a response, at the start of their clinical relationship (34,35,39,47,50). Four articles (10%) described the importance of a personalized and empathetic communication style was emphasized across multiple articles (28,44,55,61). One article (2.5%) recommended providers avoid discussions about aspects related to life outside the clinical setting (61).

Discussion

Our rapid review found that articles describing mental health-based virtual services and standards offered a wide range of recommendations for practitioners. Our team condensed these recommendations into nine independent guidelines that can be used to inform Canadian policy as well as future research on the logistics of virtual health care services.

We used the Quadruple Aim to extract data and then conducted directed content analysis using those extracted data. Our content analysis approach identified several important concepts related to virtual care for mental health, such as the extent to which it can enhance health equity, and the importance of establishing agreements or understanding between patients and providers about the expected time between a patient contacting a healthcare provider, and their response. We found that many articles

included in our manuscript were vague with respect to what discipline they related to (for instance, 14 articles reported that they were targeting 'clinicians' or 'healthcare professionals' in general).

Overall, we found that there were fewer articles addressing the extent to which virtual care could reduce costs, in comparison with the number of articles reporting recommendations about improving patient and caregiver experience, improving population health, or improving provider experiences. One other article noted that although much research seems to portray a positive view of the cost-effectiveness of telehealth, less research is available evaluating the cost-effectiveness of virtual mental health (62).

Various other Quadruple Aim-based health services studies have shared similar findings. For example, in one article assessing the Quadruple Aim in the context of patient portals, researchers reported that providers had worries about implementing this new technology into their practices and how this may challenge provider boundaries, particularly if patients expected that this new technology would require providers to respond to their messages constantly and immediately (12). Other articles evaluating the potential of virtual mental health services post-COVID-19 have also focused on themes not unlike our results, such as the importance of developing and providing sufficient virtual mental health training for healthcare providers (63,64) . One article (64) emphasized that whatever virtual mental health guidelines and standards are developed should be customized for different disciplines.

The Quadruple Aim suggests that health care systems and institutions should work to improve population health and the "…patient experience of care" (10), among other things. Surprisingly, although almost all of our included manuscripts reporting standards for virtual mental health care provided recommendations related to improving either population health or patient experience, only one article reported patient inclusion or feedback within their work (46). Instead, they reported what researchers and providers believed to be best for their patients, based on their own experiences. Although other research has been done assessing patients' opinions on virtual health services (65,66), or satisfaction after using these services (67), very little has been published reporting patients' opinions on virtual *mental* health services. Additionally, while we focused our search on 'synchronous' delivery of virtual mental health services, many included articles also described the importance of and recommendations for asynchronous virtual mental health care such as emails and text messages between patients and providers. Our team previously examined what virtual mental health services are included in provincial health coverage in Canadian settings and determined that in almost all cases, only synchronous care was included (68); the emphasis we identified in this review on asynchronous care suggests that there is interest in a more diverse basket of services being available. Future research in this area should explore patients' experiences with and the effectiveness of all virtual care modalities.

Many articles praised the potential of virtual mental health care to improve the care for marginalized populations, such as those living rurally, or who may have limitations due to mobility (65). Others cautioned that other parts of the population may be easily left behind in a pro-virtual mental health care era; some of these populations include patients with low internet access or poor technological literacy (69-71). Throughout high- income country settings, virtual delivery of mental health services has become a core part of the health system; although there were some questions of whether there would be a diminution of the use of virtual care as the public health concerns related to the COVID-19 pandemic resolved, it is apparent that virtual modalities are a core aspect of the 'new normal' (3). A key takeaway from this research is the need for high quality guidelines to support and guide for virtual mental health care; these could be used to guide development of provider training and influence policy decisions about resource allocation. Above all, we found that research on the implications for virtual

care has emphasized the need for it to be effective, safe for participants, timely, efficient, patient-centred and equitable.

Our work expands on other resources developed by provincial, territorial and federal healthcare associations on how to incorporate virtual care into mental healthcare-based settings and could be used to further guide policy development on virtual mental healthcare. For example, in parallel to this project, Ontario Health – a provincial healthcare association- developed ad released a guidance reference document on using virtual care for treating depression and anxiety (72). This document summarized literature reviews on virtual care and cognitive behavioural therapy as well as the needs of First Nations, Métis, Inuit and other Indigenous peoples. While there were numerous similarities to the themes we found, particularly those emphasizing the need for patient screening and privacy policies, there was little guidance regarding training healthcare providers to deliver virtual care, setting professional boundaries with patients or assessing the cost-effectiveness of virtual health services (69). In general, the guidance from provincial medical associations tended to also be somewhat vague (we reviewed these documents as part of our project, available at: https://pcmhstandards.ca/policy-overview/). Several guidance documents focused more on describing the potential usefulness of virtual healthcare for improving health equity (73,74). Others did not provide an outline of what is needed for effective delivery of virtual mental healthcare services (75,76).

Strengths and Limitations:

Our approach has some limitations. This review is a "rapid review", which has been previously described as a "…type of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information in a short period of time" (77). As such, while this review will be well-suited for establishing a knowledge base regarding virtual care delivery guidelines, it is possible that our literature search was not fully comprehensive. Although this may have resulted in missing some relevant articles, we believe the value of having completed this in a relatively timely manner to guide policy development outweighs that downside. Our use of the 'Quadruple Aim' as a framework for data collection from included articles may have impacted the interpretation of the content analysis, but we believe this provided an important direction that grounded our process in essential health services aims. In addition, despite our best efforts, the timeline of this review took longer than expected in order to prioritize resources to the completion of the entire grant project instead of to one individual article.

Strengths include our engagement of individuals with lived experience of mental illness throughout the review process, including in establishing the research question and reviewing emerging concepts and themes through the content analysis process. Our search identified relevant results and by conducting a rapid review as opposed to a systematic or scoping review, we have been able to incorporate these findings into a process for developing national standards for virtual mental health services in Canadian primary care (13), which will become important policy guidance for Canadian healthcare. We used rigorous methods throughout and advanced knowledge in an area that had not previously been thoroughly examined.

Conclusion

Changes in the delivery of primary care brought about by the public health response to the COVID-19 pandemic have necessitated an analysis of how virtual mental health care is delivered, and what recommendations exist to support and refine its delivery. This review described the extent to which existing recommendations in high income settings fulfill domains within the Quadruple Aim, and

generated new knowledge about concepts within these domains that can be used to guide policy development. This review has occurred at an opportune time to address a burgeoning gap in knowledge, contributing to current understanding of the research and guidelines relied upon by providers to deliver virtual care in high income countries before, during and after the implementation of COVID-19 restrictions.

Authors' contributions:

BO conceived of the overall project and obtained funding. CZ designed and implemented the search strategy. LL, NE, AY reviewed search results and selected articles for inclusion and extracted data. NE and AY conducted analysis. BO, NE, AY wrote the first draft of this manuscript. NE, AY, MK, KW, SM, HA, GS, LL, SS, CZ, TDA, PS, MK, EA, BO substantively contributed to discussions about data analysis and interpretation during the review process. NE, AY, MK, KW, SM, HA, GS, LL, SS, CZ, TDA, PS, MK, EA, BO substantively reviewed and edited the manuscript for intellectual content prior to submission.

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Competing interests statement:

All authors report no competing interests.

Figure Legend:

Figure 1: PRISMA flow diagram

Figure 2: Recommendations from reviewed literature in context of Quadruple Aim domains

Data availability:

No additional data available

References:

1. Shaw J, Jamieson T, Agarwal P, Griffin B, Wong I, Bhatia RS. Virtual care policy recommendations for patient-centred primary care: findings of a consensus policy dialogue using a nominal group technique. J Telemed Telecare. 2018 Oct;24(9):608–15.

2. Glazier RH, Green ME, Wu FC, Frymire E, Kopp A, Kiran T. Shifts in office and virtual primary care during the early COVID-19 pandemic in Ontario, Canada. CMAJ [Internet]. 2021 Feb 8 [cited 2021 Dec 27];193(6):E200–10. Available from: https://www.cmaj.ca/content/193/6/E200

3. Bestsennyy O, Gilbert G, Harris A, Rost J. Telehealth: A quarter-trilliondollar post-COVID-19 reality? [Internet]. 2020. Available from: https://www.mckinsey.com/~/media/McKinsey/Industries/Healthcare Systems and Services/Our Insights/Telehealth A quarter trillion dollar post COVID 19 reality/Telehealth-A-quarter-trilliondollar-post-COVID-19-reality.pdf

4. Husain MO, Gratzer D, Husain MI, Naeem F. Mental Illness in the Post-pandemic World: Digital Psychiatry and the Future. Front Psychol. 2021;12:567426.

5. Canadian Mental Health Association. Fast Facts about Mental Illness. https://cmha.ca/brochure/fast-facts-about-mental-illness/; 2021.

6. College of Family Physicians of Canada. Family Physicians' Response to the COVID-19 Pandemic: Results of the May 2021 CFPC Members Survey on COVID-19 [Internet]. 2021. Available from: https://www.cfpc.ca/CFPC/media/Resources/Research/COVID-19-Summary-May2021-ENG.pdf

7. Stephenson E, Butt DA, Gronsbell J, Ji C, O'Neill B, Crampton N, et al. Changes in the top 25 reasons for primary care visits during the COVID-19 pandemic in a high-COVID region of Canada. PLoS One [Internet]. 2021;16(8):e0255992. Available from: http://10.0.5.91/journal.pone.0255992

8. Stephenson E, O'Neill B, Gronsbell J, Butt DA, Crampton N, Ji C, et al. Changes in family medicine visits across sociodemographic groups after the onset of the COVID-19 pandemic in Ontario: a retrospective cohort study. C Open [Internet]. 20210615th ed. 2021;9(2):E651–8. Available from: https://www.ncbi.nlm.nih.gov/pubmed/34131028

9. Hammersley V, Donaghy E, Parker R, McNeilly H, Atherton H, Bikker A, et al. Comparing the content and quality of video, telephone, and face-to-face consultations: a non-randomised, quasi-experimental, exploratory study in UK primary care. Br J Gen Pract J R Coll Gen Pract. 2019 Sep;69(686):e595–604.

10. Bodenheimer T, Sinsky C. From triple to Quadruple Aim: Care of the patient requires care of the provider. Ann Fam Med. 2014;12(6):573–6.

11. Avdagovska M, Menon D, Stafinski T. Capturing the Impact of Patient Portals Based on the Quadruple Aim and Benefits Evaluation Frameworks: Scoping Review. J Med Internet Res. 2020 Dec;22(12):e24568.

12. Arnetz BB, Goetz CM, Arnetz JE, Sudan S, vanSchagen J, Piersma K, et al. Enhancing healthcare efficiency to achieve the Quadruple Aim: an exploratory study. BMC Res Notes. 2020 Jul;13(1):362.

13. Canadian Standards for Virtual Delivery of Mental Health Services in Primary Care [Internet]. 2023 [cited 2023 Dec 20]. Available from: https://pcmhstandards.ca/

14. Garritty C, Gartlehner G, Nussbaumer-Streit B, King VJ, Hamel C, Kamel C, et al. Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. J Clin Epidemiol. 2021;130:13–22.

15. Tricco AC, Garritty CM, Boulos L, Lockwood C, Wilson M, McGowan J, et al. Rapid review methods more challenging during COVID-19: commentary with a focus on 8 knowledge synthesis steps. J Clin Epidemiol. 2020;126:177–83.

16. Stevens A, Garritty C, Hersi M, Moher D. Developing PRISMA-RR, a reporting guideline for rapid reviews of primary studies (Protocol) [Internet]. 2018. Available from: https://www.equator-network.org/wp-content/uploads/2018/02/PRISMA-RR-protocol.pdf

17. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. Int J Surg. 2021 Apr;88:105906.

18. National Institute of Mental Health. What is Telemental Health? [Internet]. Available from: https://www.nimh.nih.gov/health/publications/what-is-telemental-health

19. Health Resources & Services Administration. Telehealth for direct-to-consumer care [Internet]. Health Resources & Services Administration. Available from: https://telehealth.hhs.gov/providers/best-practice-guides/direct-to-consumer

20. The World Bank. World Bank Country and Lending Groups [Internet]. Available from: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519#High_income

21. Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. 2005 Nov;15(9):1277–88.

22. Elo S, Kyngäs H. The qualitative content analysis process. J Adv Nurs. 2008 Apr;62(1):107–15.

23. DE Weger E, Macinnes D, Enser J, Francis SJ, Jones FW. Implementing video conferencing in mental health practice. J Psychiatr Ment Health Nurs. 2013 Apr;20(5):448–54.

24. Rabe M. Telehealth in South Africa: A guide for healthcare practitioners in primary care. South African Fam Pract Off J South African Acad Fam Pract Care. 2022 Jun;64(1):e1–6.

25. Johnson GR. Toward uniform competency standards in telepsychology: A proposed framework for Canadian psychologists. Can Psychol [Internet]. 2014;55:291–302. Available from: https://api.semanticscholar.org/CorpusID:146423117

26. Luxton DD, Pruitt LD, Osenbach JE. Best practices for remote psychological assessment via telehealth technologies. Prof Psychol Res Pract. 2014;45(1):27.

27. Saeed SA, Pastis I. Using telehealth to enhance access to evidence-based care. Psychiatr Times. 2018;35(6):9–22.

28. Shore JH. Best practices in tele-teaming: Managing virtual teams in the delivery of care in telepsychiatry. Curr Psychiatry Rep. 2019;21:1–8.

29. Shore JH, Yellowlees P, Caudill R, Johnston B, Turvey C, Mishkind M, et al. Best practices in

videoconferencing-based telemental health April 2018. Telemed e-Health. 2018;24(11):827–32.

30. Liem A, Sit HF, Arjadi R, Patel AR, Elhai JD, Hall BJ. Ethical standards for telemental health must be maintained during the COVID-19 pandemic. Vol. 53, Asian journal of psychiatry. Netherlands; 2020. p. 102218.

31. Sasangohar F, Bradshaw MR, Carlson MM, Flack JN, Fowler JC, Freeland D, et al. Adapting an Outpatient Psychiatric Clinic to Telehealth During the COVID-19 Pandemic: A Practice Perspective. J Med Internet Res. 2020 Oct;22(10):e22523.

32. Duane J-N, Blanch-Hartigan D, Sanders JJ, Caponigro E, Robicheaux E, Bernard B, et al. Environmental Considerations for Effective Telehealth Encounters: A Narrative Review and Implications for Best Practice. Telemed J e-health Off J Am Telemed Assoc. 2022 Mar;28(3):309–16.

33. Summer G, Adelman DS, Fant C. COVID-19 and telehealth: How to complete a successful telehealth visit. Nurse Pract. 2021 Jun;46(6):43–7.

34. Turvey C, Coleman M, Dennison O, Drude K, Goldenson M, Hirsch P, et al. ATA practice guidelines for video-based online mental health services. Telemed J e-health Off J Am Telemed Assoc. 2013 Sep;19(9):722–30.

35. Webb C, Orwig J. Expanding our Reach: Telehealth and Licensure Implications for Psychologists. J Clin Psychol Med Settings. 2015 Dec;22(4):243–50.

36. Pompeo-Fargnoli A, Lapa A, Pellegrino C. Telemental health and student veterans: A practice perspective through voices from the field. J Technol Hum Serv. 2020;38(3):271–87.

37. Goldin D, Maltseva T, Scaccianoce M, Brenes F. Cultural and Practical Implications for Psychiatric Telehealth Services: A Response to COVID-19. J Transcult Nurs Off J Transcult Nurs Soc. 2021 Mar;32(2):186–90.

38. Haydon HM, Smith AC, Snoswell CL, Thomas EE, Caffery LJ. Addressing concerns and adapting psychological techniques for videoconsultations: a practical guide. Clin Psychol. 2021;25(2):179–86.

39. Stoll J, Müller JA, Trachsel M. Ethical issues in online psychotherapy: A narrative review. Front psychiatry. 2020;10:993.

40. Yellowlees P, Shore J, Roberts L. Practice guidelines for videoconferencing-based telemental health - October 2009. Telemed J e-health Off J Am Telemed Assoc. 2010 Dec;16(10):1074–89.

41. Chipps J, Ramlall S, Mars M. Practice guidelines for videoconference-based telepsychiatry in South Africa. Afr J Psychiatry. 2012 Jul;15(4):271–82.

42. Guidelines for the practice of telepsychology. Am Psychol. 2013 Dec;68(9):791–800.

43. Hilty DM, Sunderji N, Suo S, Chan S, McCarron RM. Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies. Int Rev Psychiatry. 2018 Dec;30(6):292–309.

44. Abraham A, Jithesh A, Doraiswamy S, Al-Khawaga N, Mamtani R, Cheema S. Telemental Health Use in the COVID-19 Pandemic: A Scoping Review and Evidence Gap Mapping. Vol. 12, Frontiers in psychiatry. Switzerland; 2021. p. 748069.

45. Luxton DD, O'Brien K, McCann RA, Mishkind MC. Home-based telemental healthcare safety planning: what you need to know. Telemed J e-health Off J Am Telemed Assoc. 2012 Oct;18(8):629–33.

46. Luxton DD, O'Brien K, Pruitt LD, Johnson K, Kramer G. Suicide risk management during clinical telepractice. Int J Psychiatry Med. 2014;48(1):19–31.

47. Barnett JE, Kolmes K. The practice of tele-mental health: Ethical, legal, and clinical issues for practitioners. Pract Innov. 2016;1(1):53.

48. Palomares RS, Bufka LF, Baker DC. Critical Concerns When Incorporating Telepractice in Outpatient Settings and Private Practice. J Child Adolesc Psychopharmacol. 2016 Apr;26(3):252–9.

49. Smith K, Ostinelli E, Macdonald O, Cipriani A. COVID-19 and Telepsychiatry: Development of Evidence-Based Guidance for Clinicians. JMIR Ment Heal. 2020 Aug;7(8):e21108.

50. Van Daele T, Karekla M, Kassianos AP, Compare A, Haddouk L, Salgado J, et al. Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond. J Psychother Integr. 2020;30(2):160.

51. Crowe T V. Is telemental health services a viable alternative to traditional psychotherapy for deaf individuals? Community Ment Health J. 2017;53:154–62.

52. Gorenko JA, Moran C, Flynn M, Dobson K, Konnert C. Social isolation and psychological distress among older adults related to COVID-19: a narrative review of remotely-delivered interventions and recommendations. J Appl Gerontol. 2021;40(1):3–13.

53. Grosch MC, Gottlieb MC, Cullum CM. Initial practice recommendations for teleneuropsychology. Clin Neuropsychol. 2011;25(7):1119–33.

54. de Siqueira Rotenberg L, Nascimento C, Khafif TC, Dias RS, Lafer B. Psychological therapies and psychoeducational recommendations for bipolar disorder treatment during COVID-19 pandemic. Bipolar Disord. 2020;22(6):644.

55. Adams SM, Rice MJ, Jones SL, Herzog E, Mackenzie LJ, Oleck LG. Telemental health: Standards, reimbursement, and interstate practice. J Am Psychiatr Nurses Assoc. 2018;24(4):295–305.

56. McCord C, Bernhard P, Walsh M, Rosner C, Console K. A consolidated model for telepsychology practice. J Clin Psychol. 2020 Jun;76(6):1060–82.

57. Sabin JE, Skimming K. A framework of ethics for telepsychiatry practice. Int Rev Psychiatry. 2015;27(6):490–5.

58. Xiang Y-T, Zhao N, Zhao Y-J, Liu Z, Zhang Q, Feng Y, et al. An overview of the expert consensus on the mental health treatment and services for major psychiatric disorders during COVID-19 outbreak: China's experiences. Int J Biol Sci. 2020;16(13):2265–70.

59. Batastini AB, Jones ACT, Lester ME, Davis RM. Initiation of a multidisciplinary telemental health clinic for rural justice-involved populations: Rationale, recommendations, and lessons learned. J Community Psychol. 2020 Sep;48(7):2156–73.

60. Krzystanek M, Matuszczyk M, Krupka-Matuszczyk I, Koźmin-Burzyńska A, Segiet S, Przybyło J. Letter to Editor. Polish recommendations for conducting online visits in psychiatric care. Vol. 54,

Psychiatria polska. Poland; 2020. p. 391–4.

61. Drum KB, Littleton HL. Therapeutic boundaries in telepsychology: Unique issues and best practice recommendations. Prof Psychol Res Pr. 2014 Oct;45(5):309–15.

62. Hilty DM, Serhal E, Crawford A. A Telehealth and Telepsychiatry Economic Cost Analysis Framework: Scoping Review. Telemed J e-health Off J Am Telemed Assoc. 2023 Jan;29(1):23–37.

63. Palesy D, Forrest G, Crowley ME. Education guidelines, frameworks and resources for building virtual care capacity: An integrative review. J Telemed Telecare. 2023 Apr;29(3):222–43.

64. Thomas EE, Haydon HM, Mehrotra A, Caffery LJ, Snoswell CL, Banbury A, et al. Building on the momentum: Sustaining telehealth beyond COVID-19. J Telemed Telecare. 2022 May;28(4):301–8.

65. Gordon HS, Solanki P, Bokhour BG, Gopal RK. "I'm Not Feeling Like I'm Part of the Conversation" Patients' Perspectives on Communicating in Clinical Video Telehealth Visits. J Gen Intern Med [Internet]. 2020;35(6):1751–8. Available from: https://doi.org/10.1007/s11606-020-05673-w

66. Yellowlees P, Richard Chan S, Burke Parish M. The hybrid doctor-patient relationship in the age of technology - Telepsychiatry consultations and the use of virtual space. Int Rev Psychiatry. 2015;27(6):476–89.

67. Serhal E, Kirvan A, Sanches M, Crawford A. Client Satisfaction and Experience With Telepsychiatry: Development and Validation of a Survey Using Clinical Quality Domains. J Med Internet Res. 2020 Sep;22(9):e19198.

68. Yusuf A, O'Neill B. Access to virtual mental-health care uneven across Canada. Healthy Debate [Internet]. 2023; Available from: https://healthydebate.ca/2023/05/topic/access-mental-health-care-uneven/

69. O'Keefe M, White K, Jennings JC. Asynchronous telepsychiatry: A systematic review. J Telemed Telecare. 2021 Apr;27(3):137–45.

70. Rodriguez JA, Betancourt JR, Sequist TD, Ganguli I. Differences in the use of telephone and video telemedicine visits during the COVID-19 pandemic. Am J Manag Care. 2021 Jan;27(1):21–6.

71. Sachs JW, Graven P, Gold JA, Kassakian SZ. Disparities in telephone and video telehealth engagement during the COVID-19 pandemic. JAMIA Open [Internet]. 2021 Jul 1;4(3):ooab056. Available from: https://doi.org/10.1093/jamiaopen/ooab056

72. Ontario Health. Clinically Appropriate Use of Virtual Care for Depression and Anxiety- Related Conditions | Guidance Reference Document. 2023; Available from: https://www.ontariohealth.ca/sites/ontariohealth/files/DepressionAnxietyRelatedConditionsVirtualCareGuidance.pdf

73. College of Physicians and Surgeons of Saskatchewan. Virtual Care [Internet]. 2021. Available from: https://www.cps.sk.ca/imis/CPSS/For_Physicians/Patient_Care/Virtual_Care/CPSS/For_Physicians/Patient_Care/Virtual_Care.aspx?hkey=534927ea-eb4b-4ec2-ba89-d09928e2bd07

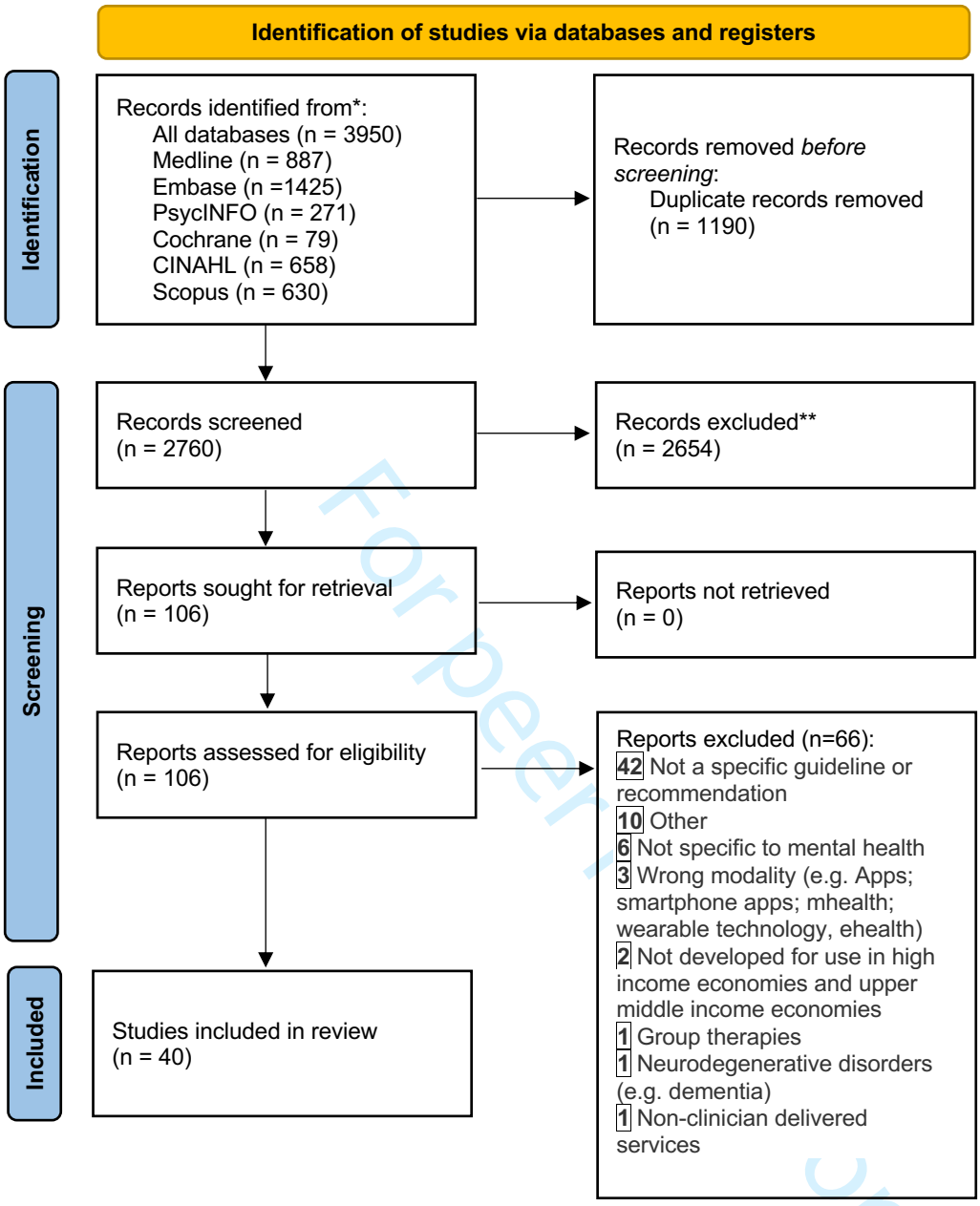
74. College of Physicians and Surgeons of British Columbia. Virtual Care [Internet]. 2013. Available from: https://www.cpsbc.ca/files/pdf/PSG-Virtual-Care.pdf

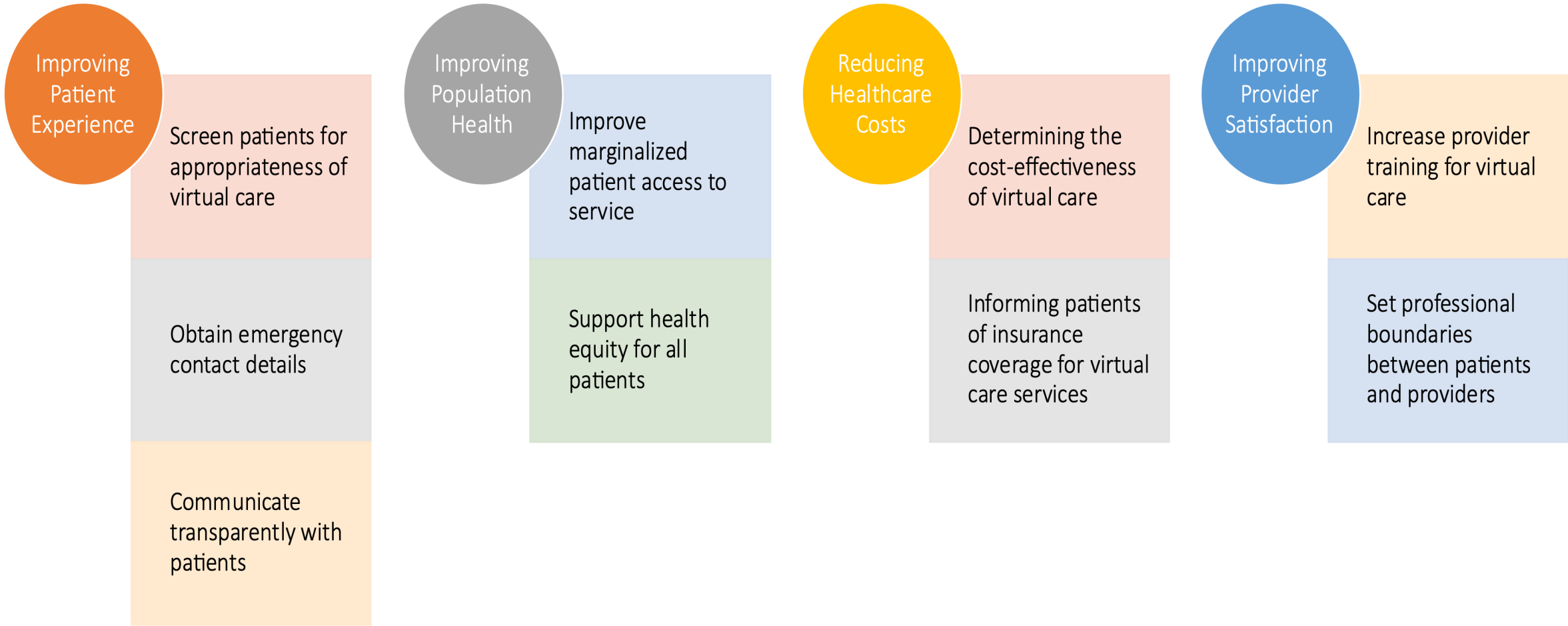
75. College of Physicians and Surgeons of Alberta. Virtual Care | Standard of Practice [Internet].

2014. Available from: https://cpsa.ca/physicians/standards-of-practice/virtual-care/

76. Northwest Territories | Health and Social Services Authority. Telehealth [Internet]. Available from: https://www.nthssa.ca/en/services/telehealth

77. Tricco AC, Antony J, Zarin W, Strifler L, Ghassemi M, Ivory J, et al. A scoping review of rapid review methods. BMC Med. 2015 Sep;13:224.




Improving Patient Experience
Screen patients for appropriateness of virtual care
Obtain emergency contact details
Communicate transparently with patients
Improving Population Health
Improve marginalized patient access to service
Support health equity for all patients
Reducing Healthcare Costs
Determining the cost-effectiveness of virtual care
Informing patients of insurance coverage for virtual care services
Improving Provider Satisfaction
Increase provider training for virtual care
Set professional boundaries between patients and providers

Appendix A. PRISMA Reporting Checklist for:
Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	See checklist
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Page 4
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 4
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Page 5
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Appendix A
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Page 6
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 6
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Page 6-7
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Page 6-7
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	N/A
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	N/A
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Page 6
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	N/A
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Page 6-7
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Page 6-7
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A

Appendix A. PRISMA Reporting Checklist for:
Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Page 7 and figure 1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Figure 1
Study characteristics	17	Cite each included study and present its characteristics.	Table 2
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	N/A; not required in rapid review
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	N/A; results page 7-11
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	N/A
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Page 11-12
	23b	Discuss any limitations of the evidence included in the review.	Page 13
	23c	Discuss any limitations of the review processes used.	Page 13
	23d	Discuss implications of the results for practice, policy, and future research.	Page 14
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Not registered
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Protocol not

Appendix A. PRISMA Reporting Checklist for:
Guidance for virtual mental health services: a rapid review of guidelines and recommendations from high income countries

Section and Topic	Item #	Checklist item	Location where item is reported
			prepared
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 14
Competing interests	26	Declare any competing interests of review authors.	Page 14
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	All data available in manuscript and supplementary information

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71
For more information, visit: http://www.prisma-statement.org/

Appendix B. PRISMA 2020 for Abstracts Checklist

Section and Topic	Item #	Checklist item	Reported (Yes/No)
TITLE			
Title	1	Identify the report as a systematic review.	YES
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	YES
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	YES
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when eachwas last searched.	YES
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	NO
Synthesis of results	6	Specify the methods used to present and synthesise results.	YES
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	YES
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparinggroups, indicate the direction of the effect (i.e. which group is favoured).	YES
DISCUSSION			
Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	YES
Interpretation	10	Provide a general interpretation of the results and important implications.	YES
OTHER			
Funding	11	Specify the primary source of funding for the review.	YES
Registration	12	Provide the register name and registration number.	YES

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematicreviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

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Appendix C: Search Strategies

Summary of Results per Database

Database	**Date Searched**	**Number of Results**
Medline (Ovid)	July 20, 2022	887
Embase (Ovid)	July 21, 2022	1425
PsycINFO (Ovid)	July 20, 2022	271
Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (Ovid)	July 22, 2022	79
CINAHL (Ebscohost)	July 22, 2022	658
Scopus	July 22, 2022	630
Total Number of Results		**3,950**
Total Number of Results after de-duplication in EndNote		**2,760**

We searched using a comprehensive combination of subject headings and keywords, adapted for each database, for the concepts telemedicine and mental illnesses, combined with adapted search filters designed to retrieve guidelines that was created by the Canadian Agency for Drugs and Technology in Health [CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca. Accessed 2022-7-21.]

The results were limited to English language; commentaries, letters, editorials, book reviews, conference proceedings were excluded.

The above listed databases were searched from 2010 to the present on July 20-22, 2022

There were 3,950 total results. Following duplicate record removal in EndNote there were 2,760 results.

Search Histories:

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations <1946 to July 19, 2022>

1 mental disorders/ or exp anxiety disorders/ or exp "bipolar and related disorders"/ or exp "disruptive, impulse control, and conduct disorders"/ or exp dissociative disorders/ or exp "feeding and eating disorders"/ or exp mood disorders/ or exp tic disorders/ or neurotic disorders/ or exp personality disorders/ or exp "schizophrenia spectrum and other psychotic disorders"/ or exp somatoform disorders/ or exp "trauma and stressor related disorders"/ 639467
2 Mentally Ill Persons/ 6395
3 Mental Health/ 54136
4 psychotherapy/ or exp behavior therapy/ or emotion-focused therapy/ or exp feedback, psychological/ or interpersonal psychotherapy/ or person-centered psychotherapy/ or exp psychoanalytic therapy/ or psychosocial intervention/ or exp psychotherapeutic processes/ or psychotherapy, brief/ or psychotherapy, multiple/ or psychotherapy, psychodynamic/ or psychotherapy, rational-emotive/ or reality therapy/ or socioenvironmental therapy/ or exp psychotherapy, group/ or therapeutic alliance/ 184009
5 Counseling/ 38736
6 psychiatric rehabilitation/ or mental health recovery/ or mental health services/ or exp emergency services, psychiatric/ or social work, psychiatric/ 42495
7 affective symptoms/ or depression/ or exp stress, psychological/ or exp compulsive behavior/ or exp anger/ or anxiety/ or self-injurious behavior/ or suicidal ideation/ or suicide, attempted/ 393283
8 Psychology, Clinical/ 3242
9 psychiatry/ or community psychiatry/ or psychoanalysis/ or psychosomatic medicine/ 58258
10 Community Mental Health Services/ or exp Community Mental Health Centers/ 21937
11 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw,kf. 1555083
12 or/1-11 1924016
13 telemedicine/ 34108
14 Videoconferencing/ 2246
15 remote consultation/ 5556
16 (telecommunications/ or telephone/ or exp cell phone/ or computer communication networks/ or internet/ or internet access/ or internet-based intervention/) and (professional-patient relations/ or nurse-patient relations/ or physician-patient relations/) 3019

17 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 38890
18 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 6302
19 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 567
20 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 122
21 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 41
22 or/13-21 69259
23 Distance Counseling/ 76
24 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 1534
25 (12 and 22) or 23 or 24 14698
26 exp clinical pathway/ 7549
27 exp clinical protocol/ 185333
28 clinical protocols/ 29712
29 exp consensus/ 18793
30 exp consensus development conference/ 12614
31 exp consensus development conferences as topic/ 2996
32 critical pathways/ 7549
33 exp guideline/ 37125
34 guidelines as topic/ 42015
35 exp practice guideline/ 29915
36 practice guidelines as topic/ 127363
37 health planning guidelines/ 4164
38 exp treatment guidelines/ 0
39 Clinical Decision Rules/ 870
40 (guideline or practice guideline or consensus development conference or consensus development conference, NIH).pt. 46980
41 (position statement* or policy statement* or practice parameter* or best practice*).ti,ab,kf. 42012
42 (standards or guideline or guidelines).ti,kf. 127739
43 ((practice or treatment* or clinical) adj guideline*).ab. 48691
44 (CPG or CPGs).ti. 6243
45 consensus*.ti,kf. 32034
46 consensus*.ab. /freq=2 31214
47 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).ti,ab,kf. 24588
48 recommendat*.ti,kf. or guideline recommendation*.ab. 54139
49 (care adj2 (standard or path or paths or pathway or pathways or map or maps or plan or plans)).ti,ab,kf. 75520

50 (algorithm* adj2 (screening or examination or test or tested or testing or assessment* or diagnosis or diagnoses or diagnosed or diagnosing)).ti,ab,kf. 9323
51 (algorithm* adj2 (pharmacotherap* or chemotherap* or chemotreatment* or therap* or treatment* or intervention*)).ti,ab,kf. 11926
52 (guideline* or standards or consensus* or recommendat*).au. 557
53 (guideline* or standards or consensus* or recommendat*).co. 0
54 (guideline* or standards or consensus* or recommendat*).ca. 1257
55 or/26-54 [Guidelines - Broad - MEDLINE, Embase, PsycInfo. In: CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca/link/26. Accessed 2022-06-02.] 712083
56 25 and 55 1109
57 limit 56 to "all child (0 to 18 years)" 182
58 limit 57 to "all adult (19 plus years)" 103
59 56 not (57 not 58) 1030
60 limit 59 to english language 1004
61 limit 60 to yr="2010 -Current" 889
62 remove duplicates from 61 887

APA PsycInfo <1987 to July Week 2 2022>

1 online therapy/ 3690
2 telepsychiatry/ or telepsychology/ 741
3 (distance counselling or distance counseling).tw. 47
4 (telemental health* or Tele mental health* or telepsych* or tele psych*).tw. 1405
5 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 966
6 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 91
7 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 32
8 or/1-7 5791
9 mental disorders/ or exp affective disorders/ or exp anxiety disorders/ or exp bipolar disorder/ or borderline states/ or exp chronic mental illness/ or exp dissociative disorders/ or exp eating disorders/ or exp personality disorders/ or exp psychosis/ or serious mental illness/ or exp somatoform disorders/ or exp "stress and trauma related disorders"/ or exp thought disturbances/ 487135
10 psychiatric patients/ 17465
11 mental health/ 75194
12 exp psychotherapy/ or exp cognitive therapy/ 186110
13 counseling/ or group counseling/ or exp psychotherapeutic counseling/ 41702
14 exp mental health services/ or community mental health centers/ 43014
15 clinical psychology/ 7117
16 suicidal ideation/ or attempted suicide/ or suicidality/ 20146
17 exp self-injurious behavior/ 6576

18 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw. 1326305
19 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 1424019
20 telemedicine/ or exp teleconferencing/ or teleconsultation/ 7922
21 digital interventions/ 955
22 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw. 8298
23 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw. 4350
24 20 or 21 or 22 or 23 16820
25 19 and 24 8646
26 8 or 25 12110
27 exp treatment guidelines/ 8469
28 best practices/ 5895
29 (standard or standards or guideline*).ti. 16652
30 (standard or standards or guideline* or best practice* or consensus or recommendation*).ti. 28578
31 (position statement* or policy statement* or practice parameter*).tw. 1791
32 ((practice or treatment* or clinical) adj guideline*).ab. 8621
33 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).tw. 2320
34 guideline recommendation*.ab. 435
35 (care adj2 (standard or path or paths or pathway or pathways or map or maps or plan or plans)).tw. 9778
36 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 56132
37 26 and 36 480
38 limit 37 to (100 childhood <birth to age 12 yrs> or 120 neonatal <birth to age 1 mo> or 140 infancy <2 to 23 mo> or 160 preschool age <age 2 to 5 yrs> or 180 school age <age 6 to 12 yrs> or 200 adolescence <age 13 to 17 yrs>) 58
39 limit 38 to ("300 adulthood <age 18 yrs and older>" or 320 young adulthood <age 18 to 29 yrs> or 340 thirties <age 30 to 39 yrs> or 360 middle age <age 40 to 64 yrs> or "380 aged <age 65 yrs and older>" or "390 very old <age 85 yrs and older>") 20
40 38 not 39 38
41 37 not 40 442
42 limit 41 to (chapter or "column/opinion" or "comment/reply" or dissertation or editorial or letter or review-book) 73

43 41 not 42 369
44 limit 43 to (english language and yr="2010 -Current") 271

Embase Classic+Embase <1947 to 2022 July 20>

1 mental disease/ or exp anxiety disorder/ or exp dissociative disorder/ or exp emotional disorder/ or exp mood disorder/ or exp neurosis/ or exp personality disorder/ or exp psychosis/ or exp psychosomatic disorder/ or exp psychotrauma/ or exp schizophrenia spectrum disorder/ or exp thought disorder/ 1771301
2 eating disorder/ or anorexia nervosa/ or binge eating disorder/ or bulimia/ 56644
3 exp suicidal behavior/ 122831
4 mental patient/ 31222
5 mental health/ 182501
6 psychotherapy/ or exp behavior therapy/ or client centered therapy/ or exp cognitive therapy/ or couple therapy/ or emotion-focused therapy/ or "eye movement desensitization and reprocessing"/ or family therapy/ or gestalt therapy/ or group therapy/ or interpersonal psychotherapy/ or marital therapy/ or psychodynamic psychotherapy/ or psychosocial intervention/ or rational emotive behavior therapy/ or reality therapy/ or short term psychotherapy/ or solution-focused therapy/ 223799
7 psychological counseling/ 436
8 mental health care/ or psychosocial care/ 52890
9 community mental health service/ or mental health service/ 65935
10 clinical psychology/ 6856
11 psychiatry/ or emergency psychiatry/ 81615
12 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).tw,kf. 2124174
13 or/1-12 3057114
14 telehealth/ or telecare/ or telenursing/ 14670
15 telemedicine/ or video consultation/ 38819
16 teleconsultation/ 13704
17 exp mobile phone/ or telephone/ or web conferencing/ 83788
18 videoconferencing/ 7221
19 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 56379
20 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 9020

ST. JOSEPH'S · ST. MICHAEL'S · PROVIDENCE
UNITY HEALTH TORONTO

21 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 765
22 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 125
23 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 50
24 or/14-23 170964
25 13 and 24 36472
26 telepsychiatry/ or telepsychology/ or teletherapy/ or telepsychotherapy/ or e-counseling/ 3051
27 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 1758
28 25 or 26 or 27 38731
29 (guideline* or standards or consensus* or recommendat*).ti. 232472
30 (practice parameter* or position statement* or policy statement* or CPG or CPGs or best practice*).ti. 21268
31 (care adj2 (path or paths or pathway or pathways or map or maps or plan or plans or standard)).ti. 11960
32 ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol*)).ti. 5963
33 (guideline* or standards or consensus* or recommendat*).au. 26
34 (guideline* or standards or consensus* or recommendat*).co. 1860
35 systematic review.ti,pt,kf,sh. and (practice guideline* or treatment guideline* or clinical guideline* or guideline recommendation*).ti,ab,kf. 7561
36 guidelines as topic/ 463763
37 exp practice guideline/ 653366
38 practice guidelines as topic/ 397009
39 health planning guidelines/ 105973
40 or/29-39 [CADTH Guidelines Search Filters, Adapted] 901280
41 28 and 40 2873
42 limit 41 to (infant <to one year> or child <unspecified age> or preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>) 354
43 limit 42 to (adult <18 to 64 years> or aged <65+ years>) 142
44 42 not 43 212
45 41 not 44 2661
46 limit 45 to (books or chapter or conference abstract or conference paper or "conference review" or editorial or letter) 711
47 45 not 46 1950
48 limit 47 to (english language and yr="2010 -Current") 1592
49 limit 48 to embase 1425

Search History
Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Complete

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#	Query	Limiters/Expanders	Results
S26	S24 NOT S25	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	658
S25	S24	Limiters - Publication Type: Book, Book Chapter, Book Review, Commentary, Doctoral Dissertation, Editorial, Letter, Masters Thesis, Proceedings, Response Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	30
S24	S22 AND S23	Limiters - Published Date: 20100101-20231231; English Language Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	688
S23	MH Critical Path or MH Practice Guidelines or PT (practice guidelines or standards or protocol or critical path or care plan) or TI ("position statement*" or "policy statement*" or "practice parameter*" or "best practice*") OR AB ("position statement*" or "policy statement*" or "practice parameter*" or "best practice*") or TI (standards or guideline or guidelines) or AB (practice N1 guideline* or treatment* N1 guideline*) or TI (CPG or CPGs) or TI consensus* or AB consensus* or AU (guideline* or standards or consensus* or recommendat*) or CA (guideline* or standards or consensus* or recommendat*) or TI (critical N2 path or critical N2 paths or critical N2 pathway or critical N2 pathways or critical N2 protocol* or clinical N2 path or clinical N2 paths or clinical N2 pathway or clinical N2 pathways or clinical N2 protocol* or practice N2 path or practice N2 paths or practice N2 pathway or practice N2 pathways or practice N2 protocol*) or AB (critical N2 path or critical N2 paths or critical N2 pathway or critical N2 pathways or critical N2 protocol* or clinical N2 path or clinical N2 paths or clinical N2 pathway or clinical N2 pathways or clinical N2 protocol* or practice N2 path or practice N2 paths or practice N2 pathway or practice N2 pathways or practice N2 protocol*) or TI recommendat* or TI (care N2 path or care N2 paths or care N2 pathway or care N2 pathways or care N2 map or care N2 maps or care N2 plan or care N2 plans or care N2 standard*) or AB (care N2 path or care N2 paths or care N2 pathway or care N2 pathways or care N2 map or care N2 maps or care N2 plan or care N2 plans or care N2 standard*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase *Note – the is a modified version of* *Guidelines - Broad - CINAHL. In: CADTH Search Filters Database. Ottawa: CADTH; 2022: https://searchfilters.cadth.ca/link/74. Accessed 2022-07-22.* *The search strings for algorithms at the end wereremoved*	307,665
S22	S1 OR S21	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	12,322
S21	S9 AND S20	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	11,973
S20	S10 OR S11 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	55,833
S19	(mental healthcare N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	114
S18	(mental health care N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	114
S17	(psychotherap* N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	321

S16	(therap* N3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital))	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	10,636
S15	(telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	38,830
S14	S12 AND S13	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	2,595
S13	(MH "Telecommunications") OR (MH "Internet") OR (MH "Email") OR (MH "Internet-Based Intervention") OR (MH "Internet Access") OR (MH "Telephone+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	87,445
S12	(MH "Professional-Patient Relations") OR (MH "Physician-Patient Relations") OR (MH "Professional-Client Relations+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	79,307
S11	(MH "Videoconferencing") OR (MH "Teleconferencing")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	4,705
S10	(MH "Telehealth") OR (MH "Telemedicine") OR (MH "Remote Consultation") OR (MH "Telenursing")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	30,965
S9	S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	985,913
S8	(mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*)	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	907,260
S7	(MH "Psychology, Clinical")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	1,074
S6	(MH "Eating Disorders") OR (MH "Anorexia") OR (MH "Anorexia Nervosa") OR (MH "Binge Eating Disorder") OR (MH "Bulimia") OR (MH "Bulimia Nervosa") OR (MH "Self-Injurious Behavior") OR (MH "Suicidal Ideation") OR (MH "Suicide, Attempted") OR (MH "Depression") OR (MH "Anxiety")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	184,160
S5	(MH "Mental Health Services") OR (MH "Counseling") OR (MH "Couples Counseling") OR (MH "Emergency Services, Psychiatric+") OR (MH "Social Work, Psychiatric")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	73,532
S4	(MH "Mental Health")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	50,531
S3	(MH "Psychotherapy") OR (MH "Behavior Therapy+") OR (MH "Desensitization, Psychologic+") OR (MH "Crisis Intervention") OR (MH "Interpersonal Psychotherapy") OR (MH "Mentalization-Based Therapy") OR (MH "Psychosocial Intervention") OR (MH "Psychotherapy, Brief+") OR (MH "Psychotherapy, Psychodynamic") OR (MH "Reality Therapy") OR (MH "Psychotherapy, Group") OR (MH "Family Therapy") OR (MH "Psychopharmacology")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	78,370

S2	(MH "Mental Disorders") OR (MH "Adjustment Disorders+") OR (MH "Mental Disorders, Chronic") OR (MH "Neurotic Disorders+") OR (MH "Organic Mental Disorders, Psychotic") OR (MH "Personality Disorders+") OR (MH "Psychotic Disorders+") OR (MH "Psychiatric Emergencies") OR (MH "Psychological Trauma+")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	376,717
S1	(MH "Telepsychiatry")	Expanders - Apply equivalent subjects Search modes - Boolean/Phrase	618

Scopus

630 document results

((ABS ("treatment guideline*" OR "practice guideline*" OR "treatment guideline*" OR "clinical guideline*" OR "guideline recommendation*")) OR ((TITLE (care W/2 standard*) OR ABS (care W/2 standard*))) OR (TITLE (standard OR standards OR guideline* OR "best practice*" OR consensus OR recommendation* OR "position statement*" OR "policy statement*" OR "practice parameter*"))) AND ((TITLE-ABS-KEY (("telemental health*" OR "tele mental health*" OR telepsych* OR "tele psych*"))) OR (((TITLE-ABS-KEY (therap* W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY (psychotherap* W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY (telemedicine OR "tele-medicine" OR telehealth* OR "tele health*" OR "remote consult*" OR "virtual care" OR "virtual mental health" OR "virtual delivery" OR "virtual health*" OR "virtual primary care" OR "virtual service*" OR "phone call*" OR "telephone call*")) OR (TITLE-ABS-KEY ("mental health care" W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital))) OR (TITLE-ABS-KEY ("mental healthcare" W/3 (internet OR web OR phone* OR telephone* OR computer* OR online OR remote OR smartphone* OR cellphone* OR virtual OR video* OR zoom OR digital)))) AND (TITLE-ABS (("mental health" OR "mental illness*" OR "mentally ill" OR "mental disorder*" OR psychiatr* OR psycholog* OR psychosis OR psychotic OR psychoses OR bipolar OR depression OR depressive OR anxiety OR schizophreni* OR ptsd OR "post traumatic" OR posttraumatic OR "stress disorder*" OR suicidal OR "attempt* suicide" OR "suicide attempt*" OR "self harm" OR "self injur*" OR counselling OR counseling OR psychotherap* OR "behaviour* therap*" OR "behavior* therap*" OR "cognitive therap*" OR "obsessive compulsive disorder*" OR ocd OR "panic disorder*" OR "phobic disorder*" OR anorexi* OR "binge eating" OR bulimi* OR "mood disorder*" OR "personality disorder*" OR "dissociative disorder*" OR "eating disorder*" OR "schizoaffective disorder*" OR "affective disorder*"))))) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018) OR LIMIT-TO (PUBYEAR , 2017) OR LIMIT-TO (PUBYEAR , 2016) OR LIMIT-TO (PUBYEAR , 2015) OR LIMIT-TO (PUBYEAR , 2014) OR LIMIT-TO (PUBYEAR , 2013) OR LIMIT-TO (PUBYEAR , 2012) OR LIMIT-TO (PUBYEAR , 2011) OR LIMIT-TO (PUBYEAR , 2010)) AND (LIMIT-TO (LANGUAGE , "English")) AND (EXCLUDE (DOCTYPE , "cp") OR EXCLUDE (DOCTYPE , "le") OR EXCLUDE (DOCTYPE , "no") OR EXCLUDE (DOCTYPE , "ed") OR EXCLUDE (DOCTYPE , "ch") OR EXCLUDE (DOCTYPE , "cr"))

EBM Reviews - Cochrane Central Register of Controlled Trials <June 2022>
EBM Reviews - Cochrane Database of Systematic Reviews <2005 to July 20, 2022>

1 mental disorders/ or exp anxiety disorders/ or exp "bipolar and related disorders"/ or exp "disruptive, impulse control, and conduct disorders"/ or exp dissociative disorders/ or exp "feeding and eating disorders"/ or exp mood disorders/ or exp tic disorders/ or neurotic disorders/ or exp personality disorders/ or exp "schizophrenia spectrum and other psychotic disorders"/ or exp somatoform disorders/ or exp "trauma and stressor related disorders"/ 41573
2 Mentally Ill Persons/ 60
3 Mental Health/ 1932
4 psychotherapy/ or exp behavior therapy/ or emotion-focused therapy/ or exp feedback, psychological/ or interpersonal psychotherapy/ or person-centered psychotherapy/ or exp psychoanalytic therapy/ or psychosocial intervention/ or exp psychotherapeutic processes/ or psychotherapy, brief/ or psychotherapy, multiple/ or psychotherapy, psychodynamic/ or psychotherapy, rational-emotive/ or reality therapy/ or socioenvironmental therapy/ or exp psychotherapy, group/ or therapeutic alliance/ 24097
5 Counseling/ 4546
6 psychiatric rehabilitation/ or mental health recovery/ or mental health services/ or exp emergency services, psychiatric/ or social work, psychiatric/ 886
7 affective symptoms/ or depression/ or exp stress, psychological/ or exp compulsive behavior/ or exp anger/ or anxiety/ or self-injurious behavior/ or suicidal ideation/ or suicide, attempted/ 27376
8 Psychology, Clinical/ 30
9 psychiatry/ or community psychiatry/ or psychoanalysis/ or psychosomatic medicine/ 219
10 Community Mental Health Services/ or exp Community Mental Health Centers/ 860
11 (mental health or mental illness* or mentally ill or mental disorder* or psychiatr* or psycholog* or psychosis or psychotic or psychoses or bipolar or depression or depressive or anxiety or schizophreni* or PTSD or post traumatic or posttraumatic or stress disorder* or suicidal or attempt* suicide or suicide attempt* or self harm or self injur* or counselling or counseling or psychotherap* or behaviour* therap* or behavior* therap* or cognitive therap* or Obsessive Compulsive Disorder* or OCD or Panic Disorder* or Phobic Disorder* or Anorexi* or Binge Eating or bulimi* or Mood Disorder* or personality disorder* or dissociative disorder* or eating disorder* or Schizoaffective Disorder* or affective Disorder*).ti. 101111
12 or/1-11 137305
13 telemedicine/ 2734
14 Videoconferencing/ 220
15 remote consultation/ 390
16 (telecommunications/ or telephone/ or exp cell phone/ or computer communication networks/ or internet/ or internet access/ or internet-based intervention/) and (professional-patient relations/ or nurse-patient relations/ or physician-patient relations/) 178
17 (telemedicine or tele-medicine or telehealth* or tele health* or remote consult* or virtual care or virtual mental health or virtual delivery or virtual health* or virtual primary care or virtual service* or phone call* or telephone call*).tw,kf. 11805

18 (therap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 3430
19 (psychotherap* adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 252
20 (mental health care adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 24
21 (mental healthcare adj3 (internet or web or phone* or telephone* or computer* or online or remote or smartphone* or cellphone* or virtual or video* or zoom or digital)).tw,kf. 3
22 or/13-21 17434
23 Distance Counseling/ 22
24 (Telemental health or Tele-mental health or telepsych* or tele psych*).tw,kf. 201
25 (12 and 22) or 23 or 24 4222
26 (standards or guideline* or "best practice*" or consensus or recommendation* or "position statement*" or "policy statement*" or "practice parameter*").m_titl. 5638
27 ("treatment guideline*" or "practice guideline*" or "treatment guideline*" or "clinical guideline*" or "guideline recommendation*").tw. 8830
28 (care adj2 standard*).m_titl. 2685
29 26 or 27 or 28 16057
30 25 and 29 100
31 remove duplicates from 30 100
32 limit 31 to yr="2010 -Current" 79

Appendix D: Characteristics of included studies

Author and year	Title of Document	Country	Setting	Study description	Provider type	Quadruple Aim 1 ('Improving patient experience')	Quadruple Aim 2 ('Improving population health')	Quadruple Aim 3 ('Reducing costs')	Quadruple Aim 4 ('Improving provider satisfaction')
Abraham, A.; Jithesh, A.; Doraiswamy, S.; Al-Khawaga, N.; Mamtani, R.; Cheema, S (2021)	Telemental Health Use in the COVID-19 Pandemic: A Scoping Review and Evidence Gap Mapping	"International"	Virtual mental health care environment	Scoping review describing the scope and domains of telemental health during the COVID-19 pandemic from the published literature and discussing associated challenges	Psychologists, psychiatrists	Authors wish for provides to prepare patients, for the telemental health experience. Telemental health sessions should last for reasonable lengths of time, with a periodic break, if needed, and patients should be empowered and an equal partner in their own care.	Health service providers and policy makers must both recognize and advocate to reduce health disparities	Ensure patients are aware of billing and insurance policies up front. Insurance providers should expand coverage for telemental health	Staff should receive appropriate training and practice, adopt empathetic and personalized communications styles and properly consult patients for consent.
Adams, S. M.; Rice, M. J.; Jones, S. L.; Herzog, E.; Mackenzie, L. J.; Oleck, L. G. (2018)	TeleMental Health: Standards, Reimbursement, and Interstate Practice	United States	Virtual mental healthcare environment	Literature review about telemental health guidelines, specifically related to 'interstate' practices (where provider is in one state and the client is in another one)	Psychologists, psychiatrists, advanced practice registered nurses, social workers, mental health nurse practitioners	Important considerations for patients include clients' personal information secure, does the technology used by provider ensure client confidentiality, is the provider licensed in the patient's state, are there any limitations to the use of a Telehealth Service with this provider.	**N/A**	**N/A**	Providers should have professional liability coverage (i.e., malpractice insurance and note that multiple billing codes, documentation standards, reimbursement schedules, and patient or provider location restrictions create a billing landscape that is difficult to navigate.
Barnett, Jeffrey E.; Kolmes, Keely (2016)	The practice of tele-mental health: Ethical, legal, and clinical issues for practitioners	United States	Virtual mental health care environment	In order to address ethical, legal, and clinical difficulties, the study looks at how technology might be integrated into clinical services, particularly tele-mental health, for the benefit of practitioners and clients. It	**N/A**	It is important to research resources in each client's local area and to provide the client with recommended resources to contact if experiencing a crisis that cannot be addressed through tele-mental health	The practice of telemental health can help clients obtain needed services to which they might not otherwise have access. In a rural state with so many individuals not having easy access to in-person mental health treatment, the practice of tele-mental health may be of great benefit to them	**N/A**	Clinicians need to be aware of appropriate billing codes for telemental health services so that they are not inadvertently engaging in insurance fraud by billing these services the same as face-to-face services -anticipated response time to electronic communications by the client

				also offers recommendations.					should be shared and agreed to -It is each clinician's responsibility to research any applicable licensing laws and regulations prior to providing professional services in those jurisdictions
Batastini, A. B.; Jones, A. C. T.; Lester, M. E.; Davis, R. M. (2020)	Initiation of a multidisciplinary telemental health clinic for rural justice-involved populations: Rationale, recommendations, and lessons learned	United States	Telemental health clinic serving prison inmates	In order to reduce criminogenic and psychiatric risks, this study presents a case of establishing a virtual telemental health clinic in a rural Mississippi county. It then analyses the use of videoconferencing technology (VCT) in mental healthcare for justice-involved populations, offers recommendations for community partnerships, operational procedures, and evidence-based interventions.	Clinicians	**N/A**	**N/A**	One multistate survey of telepsychiatry visits in correctional facilities found between $12,000 and $1-million-dollar cost savings following the implementation of remote programs.	**N/A**
Chipps, J.; Ramlall, S.; Mars, M. (2012)	Practice guidelines for videoconference-based telepsychiatry in South Africa	South Africa	Telepsychiatry-providing institutions	This study looks at telepsychiatry as a commonly used form of telemedicine, emphasizing the need for guidelines to ensure safe	Primary care mental health practitioner	Sensory deficits, especially visual and auditory, can impair the ability to interact over a videoconference connection. The inclusion of family members should be undertaken as	**N/A**	**N/A**	The comfort of the mental health professionals who perform consultations should be considered to prevent fatigue and vision problems from

				and effective therapeutic use, especially for vulnerable groups.		clinically appropriate and with the permission of the MHCU.			prolonged/increased computer interactions.
Crowe, Teresa V. (2017)	Is telemental health services a viable alternative to traditional psychotherapy for deaf individuals?	United States	Clinics providing virtual mental health care to deaf patients	This study looks into the viewpoints of 422 deaf people on telemental health services, emphasising its potential as a viable choice for getting mental health treatment and providing accessible and equitable healthcare options.	Mental health providers	Patients frequently reported that they would use virtual mental health services, if these services were available to them. Factors contributing to willingness to use virtual mental health care were: barriers experienced from accessing services in-person (e.g. long wait times for interpreters, poor communication between providers who did not know ASL and patients, etc.)	Authors suggest that virtual mental health services can help provide service that is culturally and linguistically appropriate for deaf populations in the US.	Financial barriers may be alleviated should insurance companies offer more financial compensation for mental health services. In addition, virtual mental health services should focus on being 'far-reaching' as basing there are not enough deaf people per capita to support services aimed at them. Hence, virtual mental health care may stem this gap in services, especially to those living rurally	**N/A**
de Siqueira Rotenberg, L.; Nascimento, C.; Cohab Khafif, T.; Silva Dias, R.; Lafer, B. (2020)	Psychological therapies and psychoeducational recommendations for bipolar disorder treatment during COVID-19 pandemic	Brazil	Clinics providing virtual mental health care to patients with bipolar disorder	The study explores psychological therapy approaches and psychoeducational recommendations for the management of bipolar disorder specifically during the COVID-19 pandemic.	Healthcare professionals (e.g. nurses, psychologists, doctors)	Patient experience is improved by easy access to clinicians, availability of online, social and psychological support	Telehealth provides psychological and social online support for patients. Healthcare professionals should unite to reinforce prescription of psychological therapies, review psychoeducation, and reinforce healthy living behaviors for BPD	**N/A**	**N/A**
de Weger, E.; MacInnes, D.; Enser, J.; Francis, S.; Jones, F.	Implementing video conferencing in mental health practice	United Kingdom	Mental health sector	This paper presents an overview of the evidence base on video	Health care provider	Staff and service users should meet/discuss prior to implementation whether there are gaps in the overall service of	Face-to-face virtual mental health services suitable for routine outpatient assessments,	**N/A**	Training sessions relating to VC best practice guidelines and

(2013)				conferencing (VC) in mental health, based on a literature review and the authors' implementation experience. The paper also discusses challenges that may arise during VC implementation in a mental health context, highlighting the importance of cultural change for staff acceptance.		the provider and whether VC (or other ehealth applications) could fill these gaps. Healthcare professionals should increase flexibility and availability for scheduling sessions/appointments with patients, while interacting with patients in new and flexible ways.	cognitive assessments, forensic services may be able to help provide services to those who may not be able to attend these services in-person, such as those currently imprisoned.		even role-playing sessions may be helpful for staff. Determine what support staff and service users would need in order to feel comfortable with the technology; whether staff and service users feel it would improve the care provided

Drum, Katherine B.; Littleton, Heather L. (2014)	Therapeutic Boundaries in Telepsychology: Unique Issues and Best Practice Recommendations	United States	Virtual mental health care environment	This paper explores the importance of maintaining therapeutic boundaries in telepsychology, providing best practice recommendations to ensure ethical and effective treatment in this evolving service delivery context.	Clinicians	**N/A**	**N/A**	**N/A**	Virtual mental health service should not lead to inappropriately casual interactions between providers and clientele. There should be clear markers to the beginning and end of therapeutic appointments, and these should be scheduled ahead of time and kept within business hours. Providers should avoid interacting with patients virtually in public settings. They should also keep backgrounds consistent during video calls to avoid confidentiality concerns and avoid 'friending' patients on social media.

Duane, J. N.; Blanch-Hartigan, D.; Sanders, J. J.; Caponigro, E.; Robicheaux, E.; Bernard, B.; Podolski, M.; Ericson, J. (2022)	Environmental Considerations for Effective Telehealth Encounters: A Narrative Review and Implications for Best Practice	United States	Virtual mental health care environment	This study conducts a narrative review to explore environmental factors influencing video-based clinician-patient telehealth communication, providing guidance for clinical practice and future research to enhance patient experience and outcomes in telehealth visits.	Clinicians	Communication within digital (e.g., telehealth) environments can be adversely impacted when nonverbal cues that are available during face-to-face interaction are reduced or degraded. Nonverbal cues include: immediacy, the ‘‘closeness’’ of individuals (e.g., as specified by body orientation, and eye contact); relaxation, or the tension evident through pose and posture); and responsiveness (e.g., facial expressions, voice inflection).	**N/A**	**N/A**	**N/A**
Goldin, Deana; Maltseva, Tatayana; Scaccianoce, Monica; Brenes, Francisco (2021)	Cultural and Practical Implications for Psychiatric Telehealth Services: A Response to COVID-19	United States	Virtual mental health care environment	The paper provides an overview of the growing utilization of telehealth for mental health services during the COVID-19 pandemic, focusing on culturally appropriate practice strategies and promoting client-provider engagement.	Healthcare practitioners	For telehealth to be effective and achieve its full potential, it must include safe, effective, client-centered, timely, efficient, and equitable care. Factors to consider during remote mental visits includes risk assessment, level of supervision, appraisal of symptom severity, cognitive capacity, evaluation of medical comorbidities requiring in-person examinations, and a review of prior history of treatment compliance, substance abuse, and self-injurious behaviors. In, availability of necessary technology is critical to consider considerations when screening clients.	Telehealth may improve access to psychiatric services for patients who live in rural areas/ lack ability to access public transportation.	Telemedicine more cost-effective for patients because productivity is increased as time and money spent to try and attend an appointment is lowered.	**N/A**

Gorenko, Julie A.; Moran, Chelsea; Flynn, Michelle; Dobson, Keith; Konnert, Candace (2021)	Social Isolation and Psychological Distress Among Older Adults Related to COVID-19: A Narrative Review of Remotely-Delivered Interventions and Recommendations	United States	Virtual mental health care for seniors	This narrative review highlights the negative impacts of the COVID-19 pandemic on older adults' well-being and provides an overview of remotely-delivered interventions targeting loneliness and psychological symptoms, along with recommendations to overcome implementation barriers.	Clinicians	Ensure clients are actively engaged in interventions; otherwise, clinicians risk worsening their symptoms. Clinicians should also be flexible when implementing psychological interventions in this demographic. Clinicians may also want to consider peer-support -including interventions for patients struggling with depression. Clients should be actively engaged in interventions	N/A	Interventions involving peer support for senior patients with depression typically require less clinician time, reducing per capita health care costs.	**N/A**
Grosch, M. C.; Gottlieb, M. C.; Cullum, C. M. (2011)	Initial practice recommendations for tele-neuropsychology	Canada and the United States	Virtual neuropsychological care environment	This addresses the need for guidelines in the ethical practice and utilization of telemedicine, specifically in the context of telecognitive assessment and teleneuropsychology, providing practical and ethical considerations and initial practice recommendations.	Neuropsychologists	Use appropriate volume levels on a call, make sure the camera is facing the provider at a decent angle. The provider also needs to ensure that technical specifications are up to par.	Virtual care can be offered to individuals that would not otherwise have access, such as people living in rural settings, those with insufficient healthcare resources in their community, disabled individuals with limited mobility, service members deployed to remote settings, victims of natural disasters, etc.	**N/A**	Neuropsychologists should be trained in providing virtual care prior to deploying it in their practice. They should also follow current standards.
Haydon, Helen M.; Smith, Anthony C.; Snoswell, Centaine L.; Thomas, Emma E.; Caffery, Liam J. (2021)	Addressing concerns and adapting psychological techniques for videoconsultations: a practical guide	Australia	Virtual mental health care environment	This provides practical recommendations for psychologists transitioning to telepsychology services during the COVID-19 pandemic, addressing	Clinicians	Clinicians should discuss whether to do telepsychology with patients, while asking for their opinions.	There is "substantial evidence" regarding the efficacy of telepsychology, particularly for PTSD, eating disorders, anxiety, depression. Less research is available regarding addictive behaviors. Telepsychology will	**N/A**	**N/A**

				concerns and optimizing effectiveness			also be useful in delivering care to hard-to-reach or underserved populations		
Hilty, Donald M.; Sunderji, Nadiya; Suo, Shannon; Chan, Steven; McCarron, Robert M. (2023)	Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies	United States	Virtual mental health care environment	It examines the evidence base for various telehealth technologies, including telepsychiatry, and their effectiveness in integrated care, highlighting the importance of clinician competencies and patient-centered approaches.	Primary care providers and telepsychiatrists	Patients and providers may be able to work together to both gather data on a particular health-related behaviour or metric and track that data in an app over time.	Generally, telepsychology well-received by patients and caregivers in low, medium and high intensity models of primary care. Best used within disease management and collaborative care models	Videoconferencing is cheaper than in-person. Non-video online communication (e.g. telephone/email consults) is cheaper than videoconferencing and occasionally more appropriate for patient interactions. Telepsychiatry also cuts down on no-show appointments, saving healthcare system money	Providers can work together within collaborative care models using telepsychiatry (TP). Training should also be available for integrating TP with other clinical practices.
Johnson, Gerald R. (2014)	Toward Uniform Competency Standards in Telepsychology: A Proposed Framework for Canadian Psychologists	Canada	Virtual mental health care environment	This paper examines the evolving competence requirements for Canadian psychologists practicing telepsychology and proposes using existing frameworks as a foundation for uniform competency standards.	Psychologists	Psychologists should ensure solid understanding of professional relationships in the contexts of: interpersonal relationships, power relationships, etc. to adequately deliver care to clients. For example, psychologists should be aiming to reduce crisis-induced stress and increase client functioning. They also need to evaluate patients correctly, perform proper assessments, and correctly prescribe interventions and consultations, both in-person and online.	Development of telepsychological standards of care may help limit unlicensed virtual 'psychologists' delivering improper or incorrect psychological care to patients.	**N/A**	Current psychological standards vary heavily province-to-province. This article recommends having providers complete supervised online counseling training, so that they may have the specialized skills, knowledge, resources, etc. to deliver virtual psychological care. This training would ensure that psychologists have the correct competencies to deliver virtual care to patients
Joint Task Force for the Development	Guidelines for the practice of telepsychology	United States	Virtual mental	These guidelines provide	Psychologists	Psychologists should ensure that ethical and professional standards	**N/A**	**N/A**	Psychologists should get training on how to

of Telepsychology Guidelines for, Psychologists (2013)			health care environment	education and guidance for psychologists practicing telepsychology, addressing the unique opportunities, considerations, and challenges associated with the use of telecommunication technologies in psychological service provision.		are maintained throughout telepsychology services they provide. Technology offers the opportunity to increase client/patient access to psychological services. Service recipients limited by geographic location, medical condition, psychiatric diagnosis, financial constraint, or other barriers may gain access to high-quality psychological services through the use of technology. Psychologists should thoroughly consider the most appropriate form of virtual modality and use for each individual client. They should also consider client preference.			provide services virtually, and be able to access resources that will help them deliver this care. In-person virtual training is strongly recommended. Psychologists are encouraged to be familiar with and comply with all relevant laws and regulations when providing telepsychology services to clients/ patients across jurisdictional and international borders.
Krzystanek, M.; Matuszczyk, M.; Krupka-Matuszczyk, I.; Kozmin-Burzynska, A.; Segiet, S.; Przybylo, J. (2020)	Letter to Editor. Polish recommendations for conducting online visits in psychiatric care	Poland	Virtual mental health care environment	It highlights the use of new technologies for remote care, such as tele-visits, and provides recommendations for conducting online visits in psychiatric care. The paper emphasizes the need for reliable patient identification and suggests using video communicators for remote visits to ensure a comprehensive assessment of the patient's mental state.	Doctors, psychologist, psychotherapists, addiction therapists	**N/A**	**N/A**	In Poland, virtual care visits are billed equivalently to in-person care visits. However, they cannot replace in-person medical or psychological examinations	A doctor, psychotherapist or psychologist may want to identify a patient, so the patient should have a photo ID.

Liem, A.; Sit, H. F.; Arjadi, R.; Patel, A. R.; Elhai, J. D.; Hall, B. J. (2020)	Ethical standards for telemental health must be maintained during the COVID-19 pandemic	Asia (did not narrow down to specific country or countries)	Virtual mental health care environment	The paper underscores the need for clinicians to ensure confidentiality, develop competency in online interventions, comply with regulations, obtain informed consent, and plan for contingencies.	Psychiatric service providers	Providers should be respectful of patient agency where possible and provide care ethically to patients	Telemental health is also a strategy to close the global mental health treatment gap, especially within low- and middle-income countries. However, many mental health care providers are insufficiently trained/prepared to give virtual mental health care during the COVID-19 pandemic.	**N/A**	Providers should keep themselves aware of changing guidelines, etc. related to both psychiatric treatment and virtual delivery of care.
Luxton, David D.; O'Brien, Karen; Pruitt, Larry D.; Johnson, Kristine; Kramer, Gregory (2014)	Suicide Risk Management During Clinical Telepractice	United States	Providing virtual mental health services for suicidal military personnel and veterans	This discusses the implementation of procedures for assessing and managing suicide risk in a clinical trial comparing in-office and home-based telehealth treatment for depressed military service members and veterans. The safety protocol is adapted from best practices and guidelines, with a discussion on other safety issues in telepractice.	Mental health clinicians	This article aimed to determine whether home-based telemental health in military settings could be done feasibly, safely and effectively to inform policy for broader implementation of home-based treatments. Safety plans and care were developed with patients. The authors identified a support person who can assist in an emergency	It is important to tailor safety plans to the specific situations that may be encountered, particularly if patients are located in another geographical or jurisdictional area Virtual suicide mental health services may be useful in reaching clients living outside of regular jurisdictions.	**N/A**	**N/A**
Luxton, David D.; Pruitt, Larry D.; Osenbach, Janyce E. (2014)	Best Practices for Remote Psychological Assessment via Telehealth Technologies	United States	Virtual mental health care environment	This paper examines the impact of telehealth technologies on the validity and reliability of remote psychological assessments. It discusses factors such as physical	Clinicians	It is important to consider potential cognitive and/or sensory deficits that patients may have that could impair their ability to use telehealth technology. Telehealth-based assessments allow practitioners to conveniently monitor symptoms and other	Virtual psychological services may provide populations with more convenient care that may not have been easily accessible otherwise. VTC also considered to be satisfying among patients using it for several reasons including convenience and a	**N/A**	**N/A**

				presence, technological issues, patient/provider acceptance, and procedural considerations. The review also includes psychometric data, limitations, and considerations related to culture, ethics, and safety.		health variables between in-person or telehealth treatment sessions. Further, telehealth-based psychological assessment may improve care satisfaction and overall health outcomes by providing services that are specialized for the patient's needs. Videoconferencing should make use of things like camera angles, screen size, etc. that may inhibit/ facilitate monitoring of these behaviors.	greater sense of control over sessions.		
Luxton, D. D.; O'Brien, K.; McCann, R. A.; Mishkind, M. C. (2014)	Home-based telemental healthcare safety planning: what you need to know	United States of America	Virtual mental health care environment	This article highlights safety considerations in home-based telemental health (TMH) care and provides recommendations for safety planning. Topics include state requirements, appropriateness, technology, emergency management, and TMH policy.	Clinician	The appropriateness of TMH care should be based on the needs of the patient as well as the comfort level of the clinician. It is also important to have a back-up plan if the video connection is lost. Alternate contact methods, such as by telephone, are necessary to maintain a connection between the patient. The observation of nonverbal behaviors, such as gestures, posture, and facial expressions, are important for clinicians to observe during psychological assessment and treatment because nonverbal behaviors can provide valuable clinical information that is not expressed with words alone	Clinicians' goal should be to reduce and prevent adverse reactions/events experienced by patients who partake in care services, often through procedures such as risk *e.g. suicide) monitoring, establishment of safety protocols, etc. Providers should also determine appropriateness of virtual care for each client	**N/A**	Familiarity with civil commitment requirements as well as duty to warn/protect (both statutory and case law requirements) is also important for TMH safety planning. It is recommended that TMH clinicians become familiar with the guidelines and ethics codes of their respective professional organizations. Verification of patient location is not only important for planning for the dispatch of emergency services, but also for clinician awareness of state licensure requirements. 5 Local collaborators can also provide TMH clinicians with an additional mechanism for

									contacting patients if a connection becomes lost, provide on-site technical assistance, and when appropriate, provide support to a patient during emergency situations.
McCord, Carly; Bernhard, Paula; Walsh, McKay; Rosner, Christine; Console, Katie (2020)	A consolidated model for telepsychology practice	United States	Virtual mental health care environment	This paper reviews available telepsychology guidelines, identifies commonalities, and presents a consolidated model of core practice domains. Telepsychology has potential benefits but practitioners face challenges. The model can inform competencies and practice development.	Psychologists	Clinicians should know how their sessions are protected through encryption and the location of private information even when disposed. Then, fully inform the clients about security issues. Clearly explain how their digital health information will be protected and kept from any outside interference during the course of telephone, video, email, or text-based therapeutic services	**N/A**	Compromised mental healthcare costs $300 billion USD per year	Psychologists should be able to verify the identity of the client (or the decision-maker if the client lacks the capacity to consent to the services) and also make it possible for clients to verify the identity and credentials of the psychologist. Billing is another important administrative skill, and should be outlined plans for financial arrangements, etc.
Palomares, Ronald S.; Bufka, Lynn F.; Baker, Deborah C. (2016)	Critical Concerns When Incorporating Telepractice in Outpatient Settings and Private Practice	United States	Virtual mental health care environment	This addresses the importance of staying up-to-date with technology in healthcare practice and provides considerations for evaluating and implementing technology in outpatient settings.	Mental health practitioners	Practitioners should first evaluate how and where they should add (or remove) technology into their care routine for a given client. They should also plan with patients what steps should happen if, during a remote call for example, the patient was deemed dangerous either to themselves or to others.	Telepractice has various uses within service provision. For example, it can be used as ancillary to in-person services (e.g. an online psychoeducational model following an in-person visit), directly for services (e.g. videoconferencing an appointment) telephone or email to schedule appointments).	**N/A**	**N/A**
Pompeo-Fargnoli, Alyson; Lapa, Amanda;	Telemental health and student veterans: A practice perspective	United States	Virtual mental health care for student veterans	This study explores how telemental health can address the	Counsellors	New therapies are being developed that can be used to help treat student veterans. These include: avatar	Student veterans as a group are at high risk of developing mental illnesses like PTSD, depression,	**N/A**	**N/A**

Pellegrino, Courtne (2020)	through voices from the field			unique mental health needs of student veterans, considering stigma and accessibility. It discusses various technologies used and includes expert recommendations and ethical considerations.		therapy, which creates virtual environments and client and provider characters, gamification, which uses game-like features, such as progress bars/ goal setting/point systems/badges/etc. to increase client's motivation to complete health-related goals, videoconferencing, and SMS messaging.	anxiety, etc. from their time in the military. As they move to reintegrate themselves into society, and adjust to student life, they may additional support from counsellors compared to non-veteran students. Barriers to accessing this care include stigma surrounding mental health. Researchers hope that virtual options of care may reduce the impact mental health-related stigma has among student veterans and making it easier to access care.		
Rabe, M. (2022)	Telehealth in South Africa: A guide for healthcare practitioners in primary care	South Africa	Virtual mental health care environment	This study discusses the increasing use of telehealth in clinical practice, particularly during the COVID-19 pandemic, and provides guidelines for healthcare practitioners in South Africa to conduct safe and effective telehealth consultations.	Healthcare practitioners	It is advised that telehealth consultations should occur between HCPs and patients only when they had established professional relationship.	**N/A**	**N/A**	**N/A**
Sabin, James E.; Skimming, Kathryn (2015)	A framework of ethics for telepsychiatry practice	International	Virtual mental health care environment	This review explores the ethical challenges faced by psychiatrists providing telepsychiatric services and emphasizes the need to address these challenges to ensure	Psychiatrists	**N/A**	Telepsychiatry allows for more patients to access care that may otherwise go unserved.	**N/A**	**N/A**

				competent and ethical care in telemedicine.					
Saeed, Sy Atezaz; Pastis, Irene (2018)	Using Telehealth to Enhance Access to Evidence-Based Care	Canada	Virtual mental health care environment	The paper emphasizes the potential of telepsychiatry in reducing geographic and socioeconomic disparities, enhancing coordination of care, and decreasing stigma associated with receiving mental health services..	Psychologists	Virtual care may be hampered by factors like age, sex, gender, education level, English proficiency, etc. which may impact someone's ability to access and use the technology required for virtual care.	The use of telepsychiatry to provide mental health services has the potential to solve the provider shortage problem that directly affects access to care. Telepsychiatry is not only effective and well accepted; it can also increase administrative efficiency.	**N/A**	**N/A**
Sasangohar, F.; Bradshaw, M. R.; Carlson, M. M.; Flack, J. N.; Fowler, J. C.; Freeland, D.; Head, J.; Marder, K.; Orme, W.; Weinstein, B.; Kolman, J. M.; Kash, B.; Madan, A. (2020)	Adapting an outpatient psychiatric clinic to telehealth during the COVID-19 pandemic: A practice perspective	United States	Psychiatric care clinic	This study examines the implementation of telepsychiatry during the COVID-19 pandemic, discussing its strengths, challenges, and recommendations for improved clinical practices.	Health care workers	Facility used many different platforms and modalities to meet patient needs (e.g. FaceTime, EHR, email, telephone, text, Microsoft Teams). Providers need to prepare backup plans and technologies in case first set of technologies used fails	While telehealth may be able to molded to fit the schedules and lives of different patients, differences in household incomes may determine the type of technology available	**N/A**	There was an increased need for communication between providers- staff should prepare for new changes in communication dynamics. Incorporating reflective time into/ between appointments is important. Incorporate as many demarcations of work vs home space as needed to and be disciplined to adhere to schedule work times (i.e. don't go over)
Shore, Jay H. (2019)	Best Practices in Tele-Teaming: Managing Virtual Teams in the Delivery of Care in Telepsychiatry	United States	Virtual mental health care environment	This review focuses on the management of virtual teams in team-based telepsychiatry services. The article synthesizes findings from	Psychiatrists	Patients with traumatic experiences may feel more safe receiving care in a virtual environment	Telepyschiatry can be done using teams of staff and can be deployed onto different patient populations, such as prison populations	Telepsychiatry associated with reduced health care costs per capita because patients with mental health diagnoses "receive better targeted care	Have clearly defined processes for team communications and interaction. Keep iterative approaches and assign roles and responsibilities.

				psychology and business literature to provide recommendations for psychiatrists involved in team-based telepsychiatry.				and experience decreased hospitalizations and increased compliance	Have robust yet egalitarian leadership.
Shore, J. H.; Yellowlees, P.; Caudill, R.; Johnston, B.; Turvey, C.; Mishkind, M.; Krupinski, E.; Myers, K.; Shore, P.; Kaftarian, E.; Hilty, D. (2018)	Best Practices in Videoconferencing-Based Telemental Health April 2018	United States	Virtual mental health care environment	This article consolidates guidance from ATA and APA on telemental health, emphasizing its effectiveness and providing recommendations for safe and effective implementation based on expert consensus and research evidence	Healthcare practitioners	Providers should conduct telehealth needs assessment before initiating service; these assessments should include: program overview statement, services to be delivered, proposed patient population, provider resources, technology needs, staffing needs, quality and safety protocols, business and regulatory processes, space requirements, training needs, evaluation plan, and sustainability	**N/A**	**N/A**	Providers should comply with state licensure laws, and follow regulations regarding scope of practice, prescribing, etc.
Smith, K.; Ostinelli, E.; Macdonald, O.; Cipriani, A. (2020)	COVID-19 and telepsychiatry: Development of evidence-based guidance for clinicians	United Kingdom and United States	Virtual mental health care environment	This paper provides a comprehensive synthesis of guidance on telepsychiatry during the COVID-19 pandemic, addressing various clinical questions and practical considerations. It highlights the need for cultural change and a hybrid approach combining telepsychiatry with other technologies for successful implementation	Clinician	They should prepare patients with relevant information before consultation, discuss emergency plans with patient and document appropriately post-session.	**N/A**	**N/A**	Before consultations, providers should consult relevant guidelines, consider information governance.

				in mental healthcare.					
Stoll, J.; Muller, J. A.; Trachsel, M. (2020)	Ethical Issues in Online Psychotherapy: A Narrative Review	N/A	Virtual mental health care environment	This comprehensive review examines the ethical arguments for and against online psychotherapy, highlighting key factors such as increased access, privacy concerns, therapist competence, and research gaps. The findings aim to inform practitioners, enhance ethical guidelines, and stimulate further discussion in this growing field.	Therapist	Online therapy may lead to better and more immediate care for patients, while possibly allowing for increased frequency of appointments between caregiver and patient. Online psychotherapy can be used either as an alternative to in-person treatment, or alongside in-person treatment. It may also protect patient's anonymity as they won't be seen entering/exiting offices	Online psychotherapy may increase and better access to health care services for people previously underserved, e.g. those living in remote/rural areas/ with mobility challenges, etc., with greater flexibility	Online psychotherapy found to be more cost-efficient compared to in-person appointments, because one therapist can reach more patients.	Online psychotherapy more convenient and comfortable to patients and therapists alike and allows for more flexibility with respect to location. It is also easier to create records/ transcripts of appointments with virtual methods, allowing for greater accountability and use of materials for supervision/teaching
Summer, G.; Adelman, D. S.; Fant, C. (2021)	COVID-19 and telehealth: How to complete a successful telehealth visit	United States	Virtual mental health care environment	This article examines patient and provider dynamics in telehealth using the Four Habits Model, based on real-life telehealth experiences.	Nurse practitioners	NPs should quickly establish rapport, explore patients concerns and deliberately use beginning few minutes of conversation to "design the visit" through visual/ non-verbal cues. Assess how patients understand/feel their illness, what patients	**N/A**	**N/A**	**N/A**

						hope to get out of visit and ascertain what impact the illness has on patient. Display empathy and 'invest' in the end: deliver diagnostic info using patient's earlier words where possible, provide education and joint-decision making, and close the visit while alluding to the next visit			
Turvey, C.; Coleman, M.; Dennison, O.; Drude, K.; Goldenson, M.; Hirsch, P.; Jueneman, R.; Kramer, G. M.; Luxton, D. D.; Maheu, M. M.; Malik, T. S.; Mishkind, M. C.; Rabinowitz, T.; Roberts, L. J.; Sheeran, T.; Shore, J. H.; Shore, P.; Van Heeswyk, F.; Wregglesworth, B.; Yellowlees, P.; Zucker, M. L.; Krupinski, E. A.; Bernard, J. (2013)	ATA practice guidelines for video-based online mental health services	United States	Virtual mental health care environment	This paper provides clinical, technical, and administrative guidelines for internet-based telemental health, covering various aspects such as patient appropriateness, informed consent, communication and privacy.	Mental health providers	Assess patient appropriateness for virtual care via videoconferencing, etc. Let patients set up calls by themselves, Review changes in side effects	**N/A**	**N/A**	Professionals should review discipline definitions of 'competence' in their jurisdiction and know well local laws regarding involuntary mental health hospitalizations
Van Daele, Tom; Karekla, Maria; Kassianos, Angelos P.; Compare, Angelo; Haddouk, Lise; Salgado, João; Ebert, David D.; Trebbi, Glauco; Bernaerts, Sylvie; Van	Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond	Europe (unspecified)	Virtual mental health care environment	Addresses the increased need for telepsychotherapy during the COVID-19. It focuses on utilizing technology in psychotherapeutic practice, integrating e-mental health into the healthcare	Psychotherapist	Psychotherapists should acknowledge reluctances to switch to virtual care services. Be extra cautious towards youth/ people with intellectual disabilities who are using e-mental health, to ensure that they are still receiving adequate care even if care is no longer in person. Tailor treatments to patients	**N/A**	**N/A**	Providers should implement strong boundaries to ensure healthy work life balance. they should also make sure that they're only working within their jurisdiction

Assche, Eva; De Witte, Nele A. J. (2020)				system, and developing e-mental health applications.					
Webb, C.; Orwig, J. (2015)	Expanding our Reach: Telehealth and Licensure Implications for Psychologists	United States	Virtual mental health care environment	This article examines the background and history of the ASPPB's Principles and Standards for Telepsychology, describing their application and coordination with APA guidelines.	Psychologists	Providers providing virtual psychology services will be held to same standards as those providing in-person services. Psychologists will consult with patients regarding any technical difficulties. They will also verify identities	**N/A**	**N/A**	**N/A**
Xiang, Y. T.; Zhao, N.; Zhao, Y. J.; Liu, Z.; Zhang, Q.; Feng, Y.; Yan, X. N.; Cheung, T.; Ng, C. H. (2020)	An overview of the expert consensus on the mental health treatment and services for major psychiatric disorders during COVID-19 outbreak: China's experiences	China	Virtual mental health care recommendations for providers during COVID-19 outbreaks	This review summarizes expert consensus on mental health treatment for severe psychiatric disorders during the COVID-19 outbreak in China. It provides guidance for psychiatric services and internet-based mental health services during the pandemic, which may be relevant to other countries.	Doctors	**N/A**	Patients with mental health concerns may be struggling to take care of themselves in the pandemic	**N/A**	Provide regular training on COVID-19 diagnosis for hospital staff. Strictly adhere to rules and regulations regarding Covid-19
Yellowlees, P.; Shore, J.; Roberts, L.	Practice guidelines for videoconferencing-based telemental health - October 2009	United States	Virtual mental health care environment	This study explores the applications of telemedicine in the field of telemental health, including clinical assessments, emergency evaluations, case management,	Physician	Patients should have sufficient technological competency to navigate computer applications and websites, share information/files/documents, send messages, etc.	**N/A**	**N/A**	Providers should be aware of potential legal issues

				clinical supervision, distance learning, research, and administrative services. Guidelines for the practice of telemental health, addressing standard operating procedures, and clinical specifications.					