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# Patient and provider perspectives of the implementation of remote consultations for community-dwelling people with mental health conditions: A systematic mixed studies review

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## ABSTRACT

Remote, or tele-, consultations became a necessary form of mental healthcare provision during the COVID-19 pandemic. As the prevalence of mental health problems rises, they may have a role in future mental health services. We aimed to review the literature on patient and provider perspectives on factors influencing the implementation of remote consultations for community-dwelling people with mental health conditions. We searched five electronic databases (PubMed, EMBASE, Web of Science, CINAHL, and PsycINFO) for empirical research up to July 13th, 2022. Only studies of synchronous, interactive remote consultations conducted via video, phone, or live-messaging between patients and providers were included. Two reviewers independently assessed the quality of included studies using the Mixed Methods Appraisal Tool. We integrated qualitative and quantitative data from 39 studies into a single mixed-methods synthesis. We mapped reported factors to the domains of the Consolidated Framework for Implementation Research (CFIR). Acceptability was generally high among participants, despite concerns about the quality of care and the perceived impeded therapeutic relationship. A prominent facilitator was the increased accessibility and convenience of remote consultations, while lack of appropriate infrastructure and low patient comfort and competence were among the most prevalent barriers. This review highlights the importance of patient preferences and provider buy-in to the future of remote consultations.

## 1. Introduction

Use of telemental health, the provision of mental healthcare at a distance (Clarke and Yarborough, 2013), has grown slowly over the past two decades (Muir et al., 2020), until a rapid adoption of remote care during the COVID-19 pandemic allowed for the continuation of essential mental health services for community-dwelling patients. Telemental health is a broad term encompassing modalities such as email, online group therapy, video consultations, tele-monitoring, and SMS messaging (Alhajri et al., 2021). In particular, phone and video consultations

became widespread during the pandemic (Car et al., 2020), where organisations and providers rapidly moved to provide an alternative to in-person care for people largely confined to their homes and neighbourhoods. Hence, the focus of this review are these remote consultations between mental health providers and community-dwelling patients.

Systematic reviews and meta-analyses have demonstrated that telemental health services are comparable to in-person care in terms of clinical effectiveness (Bashshur et al., 2016; Batastini et al., 2021), including for patients with depression (Guaiana et al., 2020),

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post-traumatic stress disorder (Sloan et al., 2011), and eating disorders (Mitchell et al., 2008). In addition, patients and providers have reported satisfaction with telemental health (Backhaus et al., 2012; Hubley et al., 2016; Thomas et al., 2021). In particular, patients and providers have cited reduced costs, convenience, and accessibility as some of the benefits of telemental health (Barnett et al., 2021; Christensen et al., 2020). Despite this large body of evidence supporting the effectiveness and acceptability of telemental health, its widespread adoption before the pandemic was limited (Sheridan Rains et al., 2021). Reasons for its slow uptake included technical difficulties, reimbursement and licensure issues, provider reluctance, and privacy concerns (Chen et al., 2020; Cowan et al., 2019; Douglas et al., 2017). Many of these studies were conducted in large, academic hospitals in outpatient settings. During the pandemic, the transformation to remote care occurred across the entire mental health care landscape, from small primary care practices (Frank et al., 2021), to individual psychotherapists (Cantone et al., 2021), and large community mental health authorities (Kopeck et al., 2020). This widespread move to remote care shed light on some novel, and previously-documented, challenges of telemental health implementation across a variety of settings.

For community-dwelling patients with mental health conditions, the adoption of telemental health was appreciated, allowing for the continuity of care (Madigan et al., 2021; Nicholas et al., 2021; Sugarman et al., 2021), and has potential to alleviate disparities in mental health provision beyond the pandemic (Bunnell et al., 2020; Husain et al., 2021; Qian et al., 2021). Moreover, recent literature has indicated an increase in mental health problems arising from the pandemic, which will place an increased pressure on already encumbered mental health services (Moreno et al., 2020). This increase in demand, coupled with patient and clinician expressions of interest in its future use (Gentry et al., 2021), has pointed to a need to explore the potential use of remote consultations for patients in the community.

Hence, to ensure the safe and sustained use of remote consultations, a systematic exploration of factors affecting its adoption has been identified as imperative (Stein et al., 2022). While previous reviews have attempted to examine telemental health implementation factors (Cowan et al., 2019), the rapid and increased use of remote consultations raises new questions about the sustainability of such services. Moreover, less is known about the implementation of mental health care provision when remote care is necessary, or in some cases, mandatory. Identifying the barriers and facilitators to sustained and satisfactory implementation is essential, in order to direct resources and infrastructure to improve the use of remote consultations and their outcomes (Alhajri et al., 2021). Moreover, to gain a comprehensive and relevant understanding of these factors, the perspectives of both mental health providers and patients were explored.

The primary objective of this review was to identify patients' and providers' perspectives of the factors influencing the implementation of remote consultations for patients with mental health conditions in the community. The secondary objectives was to map these factors to the domains of the Consolidated Framework for Implementation Research (CFIR).

## 2. Materials and methods

### 2.1. Design

A mixed methods systematic review was conducted following the Joanna Briggs Institute (JBI) approach to mixed methods systematic reviews (Stern et al., 2020) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (See Supplementary material) (Page et al., 2021). A protocol was registered on the PROSPERO register of systematic reviews (Registration number: CRD42021273422) and published online (Galvin et al., 2021). Changes to the protocol are summarised in the Supplementary material.

The Consolidated Framework for Implementation Research (CFIR)

(Damschroder et al., 2009) was chosen to classify the identified factors. This is a comprehensive framework comprising of constructs within five domains that are considered to be important determinants of implementing research into practice (Damschroder et al., 2009). This framework was chosen as it allows for the categorization of various implementation factors across diverse settings and enables the comparison of findings across studies and reviews (Damschroder et al., 2009). Previous telehealth reviews have demonstrated the utility of the CFIR to structure findings and inform recommendations for the implementation of such modalities (Dovigi et al., 2020), however a theoretically-informed understanding of the factors affecting the implementation of remote consultations for community-dwelling people with mental health conditions is missing.

### 2.2. Search strategy and selection criteria

A systematic literature search was undertaken of the following electronic databases: PubMed, EMBASE, Web of Science, CINAHL and PsycINFO. The search was comprised of terms relating to the main concepts of “mental health”, “telemedicine”, “implementation” and “community setting”, and was guided by search strategies from reviews of telemedicine implementation (Barnett et al., 2021; Dovigi et al., 2020). Relevant MeSH terms and keywords were used and the search syntax was adapted to suit each database. An information specialist librarian was consulted to develop the final search strategy. The search was limited to articles published in English. We also searched references of all included studies alongside forward citation searching.

Studies were searched from January 2016 to July 2022. This time period was chosen to include relevant studies published prior to the pandemic. Due to this unique period of rapid implementation, it is considered valuable to draw on both experiences during the pandemic and the body of research conducted pre-pandemic (Barnett et al., 2021). In addition to including studies conducted during the pandemic when remote consultation were considered necessary, the inclusion of studies in a recent time period prior to this helped to understand the findings that are unique to the pandemic. Whilst research on telemental health extends beyond this time period, a scoping search prior to the review revealed that there is considerably less research on the implementation of remote patient-provider consultations; those that mirror the form of remote care that was swiftly adopted during the pandemic. The full search strategies for all databases can be found in the Supplementary material.

Remote consultations were defined as live, synchronous, individual consultations between a patient and a health care provider using phone, video, or live messaging modalities. We defined “providers” as individual health care professionals who provide mental health care to patients via remote consultations. To be eligible for inclusion, studies had to meet the following criteria: a) original research using quantitative and/or qualitative methods, b) include patients with mental health conditions, patients under the care of a mental health provider, or mental healthcare providers who work with patients with mental health conditions, c) published in English, d) published in a peer-reviewed journal, e) include data relating to the implementation of remote consultations, f) be conducted in community, primary care, or outpatient settings, g) include the perspectives of healthcare providers, patients, and/or caregivers/parents.

Articles with a primary focus on group, families, or couples consultations were excluded as the unique concerns and complexities relating to these were outside the scope of this review (Wrape and McGinn, 2019). While it was plausible that providers in some studies conducted group therapies as part of their practice, data was extracted relating to individual consultations where possible. We included studies that examined the perspectives of caregivers and/or parents, as these consultations involve the care of the individual patient only. Studies only exploring anticipated or hypothetical views were excluded. Grey literature, including commentaries and conference abstracts, were excluded,

due to the lack of peer-review within these studies.

### 2.3. Data screening and extraction

Titles and abstracts of studies identified through the search strategy were imported into a reference manager (EndNote X9) and duplicate records were removed. The first author (EG) and a second author (JH) independently reviewed the titles and abstracts for eligibility. Remaining articles were screened independently by two authors (EG & JH) by reading the full texts, with any discrepancies resolved through discussion. A standardised data extraction spreadsheet was created in Microsoft Excel and piloted on three studies. Extracted data included study title, author(s), publication year, country, study design, methods, instruments, dates of data collection, setting, consultation type, and sample characteristics. Data relating to implementation were extracted from the results sections of all studies, including reported barriers and facilitators. Data extraction was conducted by one author (EG) and was cross-checked by a second author (JH), to ensure data accuracy.

### 2.4. Data synthesis

In line with the JBI convergent integrated approach (Stern et al.,

2020), after data extraction, quantitative data was “qualitised”, or transformed to textual descriptions, to allow for integration with the qualitative studies. The findings of both quantitative and qualitative were considered sufficiently similar to warrant an integrated method of synthesis (Sandelowski, 2000). Thematic synthesis, following the guidance of Thomas and Harden (2008) was conducted by the first author (EG) and involved three steps. Firstly, the extracted data, qualitative and transformed quantitative, from the results sections of the studies were coded line-by-line. Secondly, the codes were organised into descriptive themes, and finally, analytical themes were developed. The final themes were discussed and refined by the review team. The final thematic synthesis was presented narratively. The extracted data, qualitative and transformed quantitative, were then coded to the constructs and domains of the CFIR by the first author (EG), and presented in a tabular format.

### 2.5. Quality appraisal

The Mixed Methods Appraisal Tool (MMAT) was used to critically appraise all included studies (Hong et al., 2018). MMAT is a validated tool for appraisal of all study designs. Two reviewers (EG & JH) independently appraised all of the studies. Any disagreements were resolved

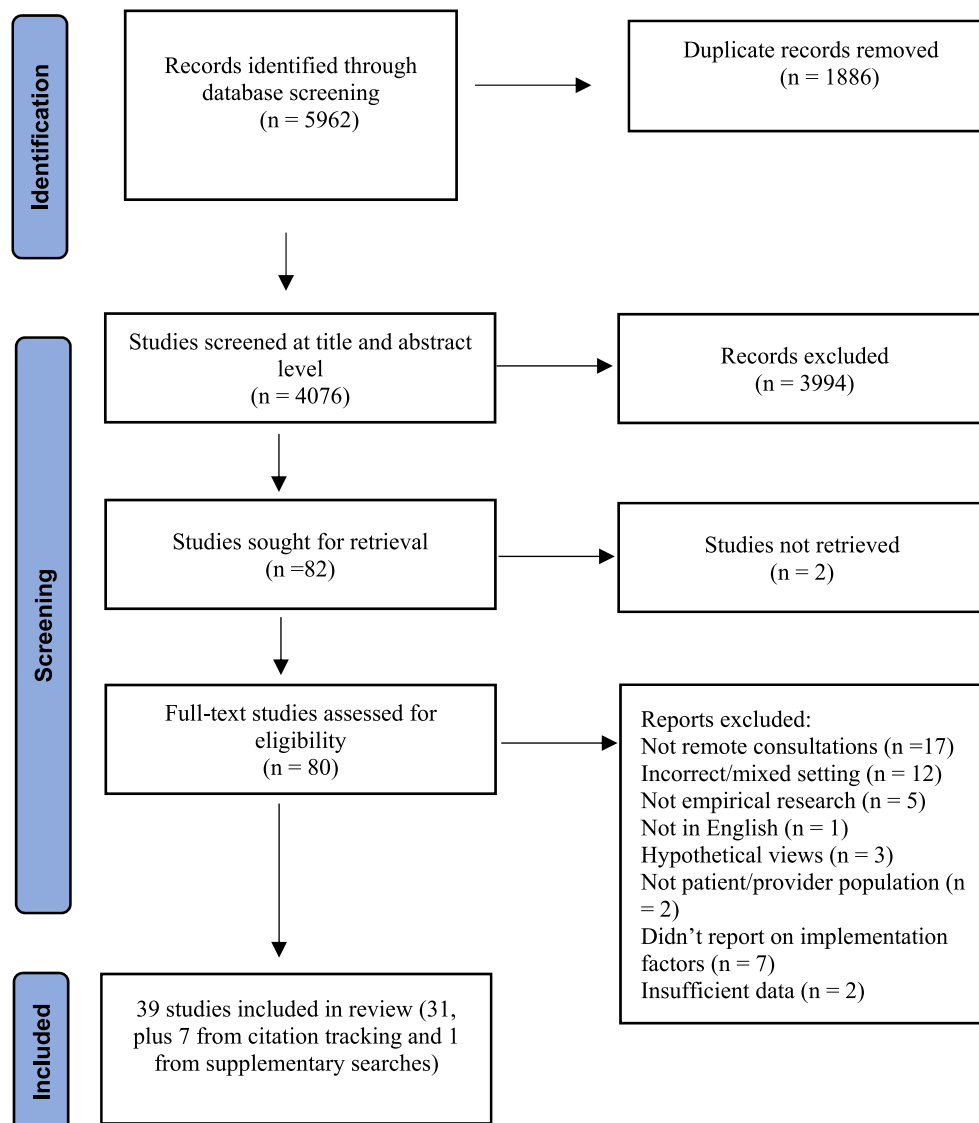


Fig. 1. PRISMA flow diagram showing the selection of studies for a systematic review and meta-analysis, 2020 (Adapted from Page et al. (2021)).

by consensus. An assessment of confidence in the cumulative findings using the GRADE or ConQual approach was not conducted as per current recommendations for mixed methods systematic reviews using the integrated approach (Stern et al., 2020). Instead, themes were checked by re-reading the studies to ensure that they accurately represented the findings.

### 3. Results

#### 3.1. Identification of selected studies

Up to July 13th 2022, we identified a total of 5962 articles from five electronic databases. After duplicates were removed, 4076 articles remained. Following title and abstract screening, 82 articles were screened for full-text eligibility. Of these articles, 31 full-text articles fulfilled the eligibility criteria. Backward and forward citation tracking was conducted on these articles and seven additional articles were identified. One additional study was identified during supplementary searches at the data synthesis stage. In total, 39 studies were included in the final systematic review (See Fig. 1).

#### 3.2. Description of included studies

The 39 studies identified were published between 2019 and 2022, with 30 (77%) of the studies conducted during the COVID-19 pandemic. Twenty-two studies employed quantitative methods, 16 studies used qualitative methods, and one study used a mixed-methods design. Studies were primarily conducted in the USA ( $n = 22$ ) and in hospital outpatient settings ( $n = 22$ ). Remote consultation modality included video ( $n = 18$ ), phone ( $n = 1$ ), and both phone and video ( $n = 20$ ). Patient/caregiver perspectives were explored in 15 studies and provider perspectives were explored in 16 studies, with eight studies exploring both perspectives. Detailed study characteristics can be found in the Supplementary material.

#### 3.3. Quality appraisal

The full quality appraisal results using the MMAT can be seen in the Supplementary material. All studies scored “yes” to the two screening questions indicating that the MMAT was appropriate to assess them. Fifteen of the sixteen qualitative studies scored “yes” on the five methodological criteria, with one study scoring “yes” on four out of the five criteria. The mixed-methods study scored “yes” on four of the five criteria. All of the 22 quantitative studies were quantitative descriptive studies. One study scored 1/5, eight studies scored 2/5, seven scored 3/5, five scored 4/5, and one scored 5/5 on the methodological criteria. The most common reasons for low or moderate methodological quality in these studies included uncertainty about whether the samples were representative, low response rates, and lack of information about the validity and reliability of survey instruments.

#### 3.4. Thematic synthesis

The thematic synthesis identified seven themes relating to patient and provider perspectives on the factors that influence the implementation of remote consultations for patients with mental health conditions in the community. These themes are 1) acceptability, 2) quality of care, 3) the therapeutic relationship, 4) accessibility, 5) patient comfort and competence, 6) provider workload and wellbeing, and 7) regulations and reimbursement (See Panel 1).

##### 3.4.1. Acceptability

Across studies, participants reported satisfaction with remote consultations, with some patients and providers reporting that remote consultations were on par with in-person consultations. For studies conducted during the pandemic, there was a sense of appreciation for

#### Panel 1 Summary of themes.

Themes	Description
<b>Acceptability</b>	Participants' acceptability and satisfaction with remote consultations and their views on its utility compared to in-person care.
<b>Quality of care</b>	Participants' views on the perceived effectiveness of remote consultations, including providers' perspectives on their confidence and efficacy in assessing patients and providing care.
<b>The therapeutic relationship</b>	The perceived impact of remote consultations on the therapeutic relationship, including the impact of less non-verbal and visual information on rapport building and the perceived inferior quality of connection.
<b>Accessibility</b>	The reported benefits of remote consultations for enhancing access to care and improving convenience, in addition to the barriers to accessing remote consultations.
<b>Patient comfort and competence</b>	Participants' views on patients' efficacy and comfort with using remote consultations, including perceptions of complexity and concerns about privacy.
<b>Provider workload and wellbeing</b>	Providers' views on workload-related changes and the move to remote working during the pandemic.
<b>Regulations and reimbursement</b>	Participants' views on the facilitating and hindering influence of regulations and insurance reimbursement on remote consultation implementation.

the continuity of care during this time (Schow et al., 2022), and it was suggested by providers in one study that patient acceptability may stem from this appreciation rather than satisfaction with virtual care itself (Uscher-Pines et al., 2020). Some providers acknowledged their reluctance when remote consultations were initially implemented, but quickly realised the benefits of remote care resulting in a more positive attitude.

During the pandemic, patients expressed gratitude to providers that continued to provide uninterrupted care at this time (Costa et al., 2021). Despite this appreciation of remote consultations, many providers were of the opinion that in-person care was still necessary and that remote consultations cannot replace in-person care (Olwill et al., 2021). In fact, during the pandemic, providers in one study reported that they could still see patients face-to-face if they were concerned for their wellbeing (Ashcroft et al., 2021). Many providers and patients expressed a preference for in-person care (Lockard et al., 2022), acknowledging that remote consultations were not suitable for every patient. Patients and providers across studies endorsed using remote consultations after the pandemic (Frye et al., 2022a), with a hybrid model of remote and in-person care being commonly suggested (Benudis et al., 2022).

##### 3.4.2. Quality of care

Relating to perceptions of quality of care, many providers reported on the limits remote consultations place on their ability to effectively provide care to patients. While some providers reported that they were as effective as delivering care remotely as in-person, many reported that they perceived the quality of care in remote consultations to be inferior to that of in-person care, a view mirrored by patients (Kaigwa et al., 2022). Many providers reported that it was more difficult to assess patients, and their symptoms, remotely, with limited access to non-verbal information, such as body language, in both video and phone visits being reported as affecting their assessment. For example, one provider reported difficulty assessing extrapyramidal symptoms from antipsychotics (Uscher-Pines et al., 2020). Another provider noted that not being able to smell one of their patients limited their assessment ability; “There may be something about cleanliness and, what can I say, if a person does not take care of himself it can be a sign of, for example, depression.” (Gullslett et al., 2021). The lack of available guidance and guidelines for conducting remote assessments was recognised as a limitation by some providers (Al-Mahrouqi et al., 2022; Romanchych et al., 2022).

Providers also reported that it was more difficult to do therapeutic or



behavioural work with patients, in some cases because providers did not have access to resources they would use in in-person consultations, such as whiteboards to draw out diagrams with patients. For example, some providers reported that eye movement desensitisation and reprocessing (EMDR) therapy was challenging to conduct remotely (Freske and Malczyk, 2021), with one provider stating that they attempted to teach their patient how to perform this therapy on themselves (Schow et al., 2022). Some providers reported that they would have liked to have received training and education on how to effectively deliver care remotely (Schriger et al., 2022), while others felt confident in their abilities and did not feel there was a need for training (Budhwani et al., 2021). In contrast, phone consultations were acknowledged as an effective and efficient method for some appointments such as medication visits (Budhwani et al., 2021; Wyler et al., 2021) and brief follow-up calls (Christensen et al., 2021).

### 3.4.3. The therapeutic relationship

An important facet of mental health care is the therapeutic relationship between provider and patient. Providers and patients shared their perceptions on the impact of remote consultations on the therapeutic relationship in multiple studies. Whilst negative views pertaining to the therapeutic relationship were more prevalent, some participants rated the working alliance in remote consultations as similar to that of in-person consultations (Doran and Lawson, 2021; Frye et al., 2022b), with half of providers in another study reporting that they were able to build rapport (Romanchych et al., 2022). Prominently, having less access to non-verbal or visual cues in both phone and video visits was reported as negatively impacting the quality of the interaction (Maher et al., 2022), with both patients and providers reporting the video was more engaging than phone for this reason. Providers reported that it was difficult to build rapport with patients (AlRasheed et al., 2022), particularly with new patients. Participants emphasised the perceived necessity of conducting an initial in-person consultation to build this rapport (Gullslett et al., 2021; Shang et al., 2021) and having an existing relationship (Moeller et al., 2022).

The perceived impersonal nature of remote consultations was cited as a barrier to virtual care for some respondents, which meant that some patients felt less likely to talk about sensitive issues. However, in one study the impersonal nature of remote consultations was cited as a potential benefit, making it easier to take about certain topics (Frayn et al., 2021). In relation to disclosure, it was noted by one provider that young people may be less likely to talk freely at home (AlRasheed et al., 2022). The anonymity of a phone consultation, over video, was cited as a reason for increased disclosures (Lipschitz et al., 2022).

Finally, the therapeutic relationship was also perceived to be impacted by some patients being more distracted and having difficulty focusing in the virtual interactions. Patients reported being more distracted by interruptions such as notifications on screen and distractions in their home environment (Maher et al., 2022). Children, in particular, were reported as being more distracted and more difficult to engage (Gullslett et al., 2021; Severe et al., 2020; Wyler et al., 2021). Technical issues were also a source of interruption to the therapeutic process (Christensen et al., 2021), with providers noting that the fear of technical problems prevented them from pursuing sensitive topics with patients (Lipschitz et al., 2022). For example, one provider expressed concern that the internet connection would drop in the middle of a vulnerable conversation and they would have to ask a patient to repeat a part of a trauma monologue (Gullslett et al., 2021).

### 3.4.4. Accessibility

Overwhelmingly, the main facilitator to remote consultations was the increased access to care experienced by patients. This improved access to care was specifically reported as a facilitating factor for patients living far away or those living with mobility issues or long-term conditions. These improvements in accessibility were reported as making it easier to attend appointments. The time-saving benefits of remote

consultations were also reported as facilitating factors, primarily in relation to reducing time spent travelling to appointments (Goetter et al., 2022; Moo et al., 2020; Schubert et al., 2019). In addition, patients also reported that remote consultations improved their access to care by removing some of the logistical barriers, including requiring less time off work (Aronowitz et al., 2021), reducing expenses (Das et al., 2020), removing childcare barriers (Lockard et al., 2022), and reducing waiting times (Tuijt et al., 2021). In the context of the COVID-19 pandemic, patients also remarked that remote consultations reduced their likelihood of contracting COVID-19 (Severe et al., 2020). Patients highlighted convenience and flexibility as facilitating factors to their participation in remote consultations, and acknowledged that they were more likely to attend appointments (Frayn et al., 2021; Guinart et al., 2020).

Furthermore, participants reported that remote consultation removed the psychological barriers of stigma (Al-Mahrouqi et al., 2022; Ashcroft et al., 2021) and anxiety (Frayn et al., 2021; Gullslett et al., 2021) that they associated with attending in-person consultations. A provider in one study elaborated that patients find it “less stigmatizing ... they don’t have to worry about running into anyone” (Ashcroft et al., 2021). Other providers noted that the move to remote consultations during the pandemic increased the engagement of some patients who previously lacked motivation to attend in-person consultations. From the patient perspective, the reduction of logistical barriers removed some of the stress relating to attending in-person appointments (Frayn et al., 2021), such as rushing in traffic or trying to find parking, making attending remote appointments a more relaxing experience (Seritan et al., 2019). For example, caregivers of patients with dementia reported that they experienced less negative dementia symptoms compared to attending in-person sessions (Gately et al., 2022).

While remote consultations increased access to care for many patients, the presence of barriers to remote consultations was widespread across studies of provider and patient perspectives. Namely, lack of reliable internet or phone connection and lack of technology were the most commonly-reported barriers to accessing and partaking in remote consultations for patients with mental health conditions (Hunsinger et al., 2021). Some patients preferred phone consultations because of their reliability over unstable video calls (Kaigwa et al., 2022). These barriers were particularly prevalent among patients of low socio-economic status who lacked access to software, hardware, and sufficient internet data to successfully participate in remote consultations.

### 3.4.5. Patient comfort and competence

The fifth theme is patients’ comfort and competence with using remote consultations. Many patients reported finding remote consultations easy to use (Lima et al., 2022) and appreciated the option of choosing between virtual modalities. However, for others, lack of comfort with technology was reported as influencing patients’ decisions to partake or continue with remote consultations. This initial nervousness and apprehension diminished among some patients with use (Christensen et al., 2021). When technical issues persisted, patients with low digital literacy experienced frustration and feelings of incompetence. Some patients, namely older patients, reported relying on others for assistance when these issues occurred. In contrast, providers reported that younger patients, such as adolescents, were comfortable with technology, and were able to exert control over what they chose to display on the consultation. Finally, it was reported by some participants that patients were more relaxed in their own environments and therefore more forthcoming (Guinart et al., 2020; Uscher-Pines et al., 2020), and felt self-empowered participating from their home (Al-Mahrouqi et al., 2022).

Aside from concerns about competence, some participants reported patients’ concerns about privacy, particularly difficulties finding a quiet, private space to conduct the consultation. This is particularly relevant to mental health consultations, where patients reported not feeling as comfortable talking at home compared to at a clinic (Uscher-Pines et al.,

2020). Providers recognised that patients were worried about being overheard (Uscher-Pines et al., 2020) and recognised the stigma of attending a remote mental health appointment compared to a remote general medical appointment (Budhwani et al., 2021). This issue of difficulty finding privacy was exacerbated during the pandemic, where multiple members of the same family or household were at home at the same time (Budhwani et al., 2021). Furthermore, providers expressed concern about the potential of an abusive or controlling partner being in the room during a remote consultation (Gullslett et al., 2021). Patients reported using phone, over video, in an attempt to heighten their privacy (Benudis et al., 2022).

#### 3.4.6. Provider workload and wellbeing

The sixth theme is that of the workload and wellbeing changes involved with the adoption of remote consultations, and the associated move to remote working during the pandemic. During the pandemic in particular, many providers reported increases in workload associated with the transition to remote consultations. Specifically, some providers reported an increase in the amount of administrative tasks and engaging in extra work to help patients troubleshoot problems and prepare for appointments. Feelings of exhaustion were also reported, specifically from spending an increased amount of time in front of a screen, referred to as “Zoom fatigue” (Buckman et al., 2021; Romanchych et al., 2022). Some providers also reported difficulties managing their time and needing to incorporate more breaks into their working day. On a more positive note, many providers reported that there were less patient cancellations and less “no-shows” and that patients were more likely to be on time (Lipschitz et al., 2022).

Providers also discussed their experiences of working remotely during the pandemic. Providers endorsed the benefits of working from home such as not having to book rooms (Buckman et al., 2021), having more flexibility in their day, and saving time travelling to the office. The downsides of working from home included missing colleagues and collegial support (Benudis et al., 2022), invasion of privacy, (Lipschitz et al., 2022), and not having an adequate space to conduct consultations from (Schow et al., 2022).

#### 3.4.7. Regulations and reimbursement

The final theme relates to the regulatory factors considered important to the future of remote consultations. Many providers, particularly those working in the USA, expressed gratitude at the relaxation of practice restrictions on telemental health at the start of the pandemic (Aronowitz et al., 2021). These regulations were recognised as a barrier to the pre-pandemic adoption of telemental health. Looking forward to the future of remote consultations after the pandemic, many providers expressed hope that these restrictions would remain lifted so they could continue to practice outside of their jurisdiction (Freske and Malczyk, 2021). However, there was a sense of confusion and apprehension among providers that these regulations may return when in-person care resumed following the pandemic (Freske and Malczyk, 2021). Providers expressed concern that re-instating restrictions could impact patient care, and considered this to be a step backwards (Schow et al., 2022).

Similarly, providers and patients expressed concern that insurance companies would not continue to reimburse for remote consultations or may begin to bill at different rates. Patients in one study were particularly concerned about the high cost of remote consultations within the private health sector (Al-Mahrouqi et al., 2022). The lack of clarity surrounding these issues led to a sense of uncertainty about the future of remote consultations (Aronowitz et al., 2021).

### 3.5. Consolidated framework for implementation research

Patients’ and providers’ perspectives on implementation factors aligned closely with four of the five domains of the CFIR, including intervention characteristics (e.g. increased accessibility), the inner setting (e.g. lack of necessary resources), the outer setting (e.g. patient

competence), and characteristics of individuals (e.g. provider beliefs about effectiveness) (See Table 1 for examples). Only one study reported factors relating to the process domain (Budhwani et al., 2021).

Barriers and facilitators pertaining to the *intervention characteristics* domain of the CFIR were among the most commonly reported, particularly relating to the *relative advantage* construct whereby comparisons between remote and in-person consultations were frequently made. In addition, factors relating to the *patient needs and resources* construct were the most prevalent in the *outer setting* domain, emphasising the importance of patients’ needs and preferences to the implementation of remote consultations. In the *inner setting* domain, reported barriers mainly pertained to the *available resources* sub-construct of the *readiness for implementation* construct, highlighting the lack of necessary resources, such as adequate internet bandwidth, within organisations. Finally, within the *characteristics of individuals* domain, participants frequently reported barriers and facilitators relating to the *knowledge and beliefs about the intervention* construct, emphasising the importance of provider acceptability to the implementation of remote consultations. Factors pertaining to the *process* construct of the CFIR were not as frequently reported, reflecting the lack of planning and evaluation of services during the pandemic. The presence of the CFIR constructs across studies can be seen in the Supplementary material.

## 4. Discussion

### 4.1. Key findings

This synthesis identified seven themes relating to patients’ and providers’ perspectives on the factors that influence the implementation of remote consultations for community-dwelling people with mental health conditions. Despite high acceptability among participants, a number of barriers and challenges were reported, namely concerns about the quality of care and the perceived impact of remote consultations on the therapeutic relationship. The increased accessibility and convenience of remote consultations were among its primary facilitators, removing logistical and psychological barriers to help-seeking and allowing for continuation of care during the COVID-19 pandemic. Other challenges included technical difficulties, lack of available guidance and training for providers, and increases to providers’ workload.

Providers and patients endorsed a “hybrid” model of mental health care going forward, taking into account the suitability of the patient, consultation type, and patient preferences. However, providers expressed confusion and concern about the uncertain regulatory environment that may limit the use of telemental health beyond the pandemic. Another potential systemic barrier to remote consultation adoption and use is the lack of appropriate infrastructure such as unreliable phone and internet connections. These barriers, combined with patients’ limited access to technology and low digital literacy, highlight a risk of digital exclusion that may disproportionately affect patients of low socio-economic status.

The reported barriers and facilitators were mapped to the domains of the CFIR, and related to patient-, provider-, and system-level factors. Across various contexts and patients, increased access to care was identified as a prominent facilitator within the CFIR construct *relative advantage*, highlighting its importance to the future of remote consultations. In addition, provider *knowledge and beliefs about the intervention* were as a facilitator to the implementation of remote consultations, highlighting the importance of provider buy-in. Finally, the prevalence of the CFIR construct *patient needs and resources* emphasised the importance of considering patients’ preferences and circumstances to the implementation of remote consultations.

### 4.2. Comparison with previous literature

The swift and somewhat-haphazard adoption of remote consultations during the COVID-19 pandemic created unique issues and

**Table 1**  
Barriers and facilitators mapped to the domains of the CFIR.

CFIR domain/construct	Barrier	Facilitator	Finding
<b>1. Intervention characteristics</b>			
<i>Relative advantage</i>	B		More challenging to build a therapeutic relationship
	B		Increased challenges physically examining patients and taking vitals
	B		More difficult to assess suicidal risk
	B		Increase in provider workload and burnout
	B		Increased challenges assessing and diagnosing patients
	B		Less access to non-verbal and visual cues than in-person visits
		F	More efficient for medication management visits
		F	Advantages of working from home
		F	Improved access to care for patients
		F	Improved convenience and flexibility
		F	Removal of logistical and psychological barriers to care
<i>Evidence strength and quality</i>	B		Lack of training on effectiveness of remote care
<i>Trialability</i>		F	Experience with pilot helped providers feel prepared for implementation
<i>Adaptability</i>		F	Being able to adjust the duration of the consultation to increase engagement
<i>Complexity</i>	B		Additional effort required to prepare patients
		F	Remote consultations were uncomplicated
<i>Design quality and packaging</i>	B		Technical issues with platforms
	B		Poor sound and audio quality
		F	Technology was easy to use
		F	Technology worked as expected
		F	Satisfaction with sound and audio quality
<i>Cost</i>	B		Money required to purchase new equipment
	B		Patients discouraged by high cost of remote consultations
		F	Reduction in travel-related costs
<b>2. Outer Setting</b>			
<i>Patient needs and resources</i>	B		Patients lacked hardware and software
	B		Patients lacked reliable access to internet and phone connection
	B		Patients lacked access to private, quiet space
	B		Patients lacking digital literacy skills
		F	Remote consultations met patients' needs
		F	Patients feeling competent with remote consultations
		F	Remote consultations removed logistical barriers to accessing care
		F	Remote consultations were less stressful for patients
<i>External policy and incentives</i>	B		Provider concerns about insurance coverage
	B		Concerns about medico-legal issues
	B		Provider concerns about restrictions remaining lifted beyond the pandemic
	B		Lack of standards and guidelines for conducting remote care
		F	Providers appreciated having billing codes
		F	Providers grateful for lifting of practice restrictions
		F	Providers appreciated use of non-HIPAA approved platforms
<b>3. Inner setting</b>			
<i>Leadership engagement (readiness for implementation)</i>		F	Support from employers was helpful
<i>Available resources (readiness for implementation)</i>	B		Lack of therapeutic resources available to providers
	B		Lack of high speed internet/bandwidth problems within organisation
	B		Providers not having adequate space to conduct remote consultations from
		F	Adequate access to internet and equipment
<i>Access to knowledge and information (readiness for implementation)</i>	B		Too busy to learn how to deliver remote care well
	B		Lack of education and training in virtual care
	B		Lack of guidance and information
		F	Adequate training and support
<i>Compatibility (implementation climate)</i>	B		Increased administrative burden
	B		Increase in scheduling challenges
	B		Lack of automatised documentation system
	B		Taking longer to prepare patients for remote consultations
		F	Remote consultations fitted with workflow
<i>Relative priority (implementation climate)</i>	B		Belief that hospital will return to in-person care to recoup facility fee
		F	Provider interest in continuing with remote consultations, even after return to in-person care
<i>Networks &amp; communication</i>		F	Providers valued working with colleagues facing similar situations
<i>Culture</i>		F	Culture of teamwork and communication appreciated by providers
<b>4. Characteristics of individuals</b>			
<i>Self-efficacy</i>	B		Reduced confidence in conducting assessments
	B		Less non-verbal and visual cues affected assessment ability
	B		Lack of training and skills in delivering care online
		F	Providers felt confident delivering remote care
<i>Knowledge and beliefs</i>	B		Beliefs that remote care is not as effective as in-person care
	B		Belief that remote care is not suitable for some patients
	B		Belief that virtual care cannot replace in-person care
	B		Belief that there are increased risk and safety issues
		F	Belief that video has advantages over phone in relation to building a therapeutic relationship
		F	Belief that remote care can meet patients' needs

(continued on next page)



Table 1 (continued)

CFIR domain/construct	Barrier	Facilitator	Finding
		F	Belief that remote care is efficient
<b>5. Process</b>			
<i>Planning</i>		F	Preparation done in pilot helped with uptake of remote consultations
<i>Engaging champions</i>		F	Clinical champions in pilot helped with preparedness

exacerbated existing challenges. Across studies, participants rated remote consultations on par with in-person care and reported that they would willingly use them again, mirroring findings from other reviews (Appleton et al., 2021). However, participants reported concerns about the quality and effectiveness of care, which contrasts with findings that telemental health is as effective as in-person care across a number of clinical outcomes (Backhaus et al., 2012; Thomas et al., 2021). The finding of the perceived impaired therapeutic relationship contrasts with some studies of effectiveness of telemental health (Hubley et al., 2016), while other reviews have recognised this as a potential limitation of telemental health (Connolly et al., 2020; Siegel et al., 2021). Perceptions of this impeding therapeutic relationship warrants further research as it has many ethical implications if not addressed (Frittgen and Haltaufderheide, 2022).

The perceived utility of remote consultations to improve access to care appears to be a prominent facilitator to the continuation of remote consultations, as reported in other reviews (Barnett et al., 2021). As patients with mental health conditions may have comorbid long-term conditions (Puyat et al., 2017), the accessibility benefit is particularly important. In addition, provider buy-in to telemental health implementation has been reported as an important facilitator in previous reviews (Connolly et al., 2020). As suggested in a previous review (Connolly et al., 2020), providers may be willing to overcome the associated issues if they believe remote care benefits, such as increased accessibility and flexibility, outweigh the barriers. However, for some patients these benefits may not be enough to justify continuing with remote consultations. One such group of patients are those with low competence or comfort with remote consultations. Finally, organisational and system factors, such as concerns about the temporary relaxation of regulations during the pandemic have been documented in the recent telemental health literature (Chen et al., 2020).

#### 4.3. Implications for practice and policy

The findings of this review are particularly important in the context of the post-pandemic mental health care landscape. Many participants endorsed a “hybrid” model of care, where patients attend a combination of remote and in-person consultations depending on their needs, their accessibility, and appointment type. This idea of a hybrid model is not new (Connolly et al., 2020; Yellowlees and Nafiz, 2010), but is particularly relevant to post-pandemic healthcare provision, where the option of remote care may not have been available to patients pre-pandemic. Moreover, including patients in shared decision-making surrounding their modality of care could foster their agency and autonomy, which are key concepts in psychiatry and psychotherapy (Trachsel and Sedlakova, 2022). Furthermore, with the recent increase in availability of private telemental health companies, patients now have more choice and control over their preferred modality and provider of mental health care. Our findings, highlighting the importance of patients’ preferences and needs, may be applicable to understand the use of remote consultations within this new mental healthcare landscape.

The “digital divide” barriers, prominent in the telemental health literature (Eruchalu et al., 2021), are still prevalent, even in high-income countries where the majority of these studies were conducted. This has important implications as patients with low digital literacy, who may already be disenfranchised from care, may further become excluded because of their level of comfort and ability with remote consultations. It is important to consider this in remote mental health service planning,

including the provision of patient training and induction, and follow-up with those who decline to participate in remote consultations. Nonetheless, the patient’s autonomous choice should be respected when deciding to engage, or not engage, with remote care. From our findings, we suggest a number of practical recommendations for the implementation and use of remote consultations for community-dwelling patients with mental health conditions (See Panel 2), some of which may be generalised to medical remote consultations.

#### 4.4. Implications for research

A common narrative across the included studies was a sense of an appreciation of continuity of care during the pandemic, with patients happy to receive any care at all during this time, possibly reflecting short-term and immediate perspectives of remote consultations. Further research in this area could benefit from exploring acceptability in the long-term, when patients have a choice between both modalities, to investigate if these views change over time. The misalignment between high acceptability and perceptions of inferior quality points to a perceived trade-off between the continuation of care and the quality of care that was evident in the studies; patients and providers were willing to sacrifice some of the effectiveness associated with in-person consultations to continue with care in exceptional circumstances. An important question to consider now is will patients and providers be willing to make this trade-off beyond the pandemic? Considering the effectiveness of telemental health is well-established (Batastini et al., 2021), a more promising avenue of research could be the development of a conceptual model of provider acceptance to help further understand the factors that influence provider acceptability of telemental health, including the role of perceived effectiveness as a potential determinant of provider acceptability.

A limitation of the included quantitative studies is that many of them did not report using a validated instrument when measuring patient and provider perspectives. This points to a need to develop a validated survey to explore perspectives of telemental health services. Another gap in the research is the lack of studies that explored cost as a factor in relation to remote consultation implementation. Whilst participants mentioned cost savings in terms of reduced travel, there is a need for evidence on the cost-effectiveness of remote consultations if they are to be used beyond the pandemic. A further area of potential future research is the implementation of telemental health for child and adolescent populations. Conducting research with these populations, and their caregivers, may reveal unique challenges and advantages that have yet to be fully explored. Relatedly, while beyond the scope of this review, research into remote consultations for families and couples may elucidate some of the challenges relating to privacy, trust, and the therapeutic relationship, when multiple individuals are involved.

#### 4.5. Strengths and limitations

This review has many strengths. We conducted a broad, comprehensive search and followed the current best-practice guidance to conducting a mixed methods review (Stern et al., 2020). A strength of this review is the inclusion of patient perspectives, which is considered an essential perspective to understanding mental health care delivery during the pandemic (Ashcroft et al., 2021). Another strength is the use of an implementation framework which aided with the interpretation of findings and allows for comparison with future studies and reviews.

**Panel 2**

Practical recommendations for the implementation and use of remote consultation for people with mental health conditions in the community.

**Recommendations for organisations**

Provide continuous training and skills sessions to providers, including training to improve self-efficacy with diagnosing and assessing patients<sup>a</sup>  
 Provide supports for staff who are burdened or struggling<sup>a</sup>  
 Obtain regular feedback from providers and patients to improve remote consultations<sup>a</sup>  
 Provide adequate administrative support and staff, particularly during initial stages of implementation<sup>a</sup>  
 Provide the necessary software and hardware for staff working remotely<sup>a</sup>  
 Offer adaptations to patients with hearing or visual impairments<sup>a</sup>  
 Provide a quiet, private room in GP, local health centre or pharmacy for those living in crowded homes etc.<sup>a</sup>  
 Follow up with those who have refused online care and find out the reason for refusal e.g. low digital literacy, no internet connection<sup>a</sup>  
 Provide FAQs to patients and staff on common technical problems<sup>a</sup>  
 Conduct a separate session for preparing patients for remote consultations<sup>a</sup>  
 Make increased efforts to communicate delayed appointments to patients<sup>a</sup>  
 Advocate for continued insurance coverage for remote consultations<sup>a</sup>  
 Develop an automatised documentation system whereby paper and electronic notes can be integrated and accessed remotely by all staff involved in a patient's care<sup>a</sup>

**Recommendations for providers**

Adopt a hybrid model of care where possible, taking into account the type of consultation and patients' preferences<sup>a</sup>  
 Share positive experiences with colleagues to improve buy-in<sup>a</sup>  
 Schedule breaks and take regular breaks from the screen<sup>a</sup>  
 Encourage patients to include their full body on screen, and emphasise the importance of this to the patient<sup>a</sup>  
 Conduct special follow-up with older patients or those experiencing difficulties with remote consultations<sup>a</sup>  
 Make use of online resources such as online whiteboards for therapeutic work  
 Offer choice of consultation format to patient and engage patient in decision-making<sup>a</sup>  
 Implement contingency planning if disconnected from patient, for example, ask the patient for their location and for a call-back number at the beginning of each consultation  
 Utilise phone consultations for certain visits when efficiency is required e.g. medication management visits<sup>a</sup>  
 Utilise virtual (inspection) physical examination (ViPE) when a physical examination is required<sup>a</sup>  
 For patients at risk of suicidal thoughts, schedule future appointments to which the patient can look forward  
 Explain to the patients how the pathway of recovery will be addressed on remote consultations  
 Test the technology with a colleague before conducting the initial consultation with a patient, to reduce fears and increase efficacy<sup>a</sup>  
 Be open with the patient about your insecurities with technology, if not confident, to create balance in the relationship<sup>a</sup>

**Recommendations for patients**

Ask the organisation if they can offer devices and equipment temporarily, such as laptops, tablets, and Wi-Fi boosters<sup>a</sup>  
 Attempt to have first meeting in-person in person to build rapport with provider  
 Communicate any needs or adaptations to the practice or provider<sup>a</sup>  
 Conduct consultation in a quiet, private space, free of distractions where possible<sup>a</sup>

<sup>a</sup> May be generalizable to remote medical consultations.

Nevertheless the review has limitations. While an exhaustive search was conducted, it is possible that some studies were missed, considering that the citation tracking revealed a number of additional studies. One possible reason for this is the heterogeneity of terms used to describe remote mental health care and telemedicine, which differ depending on the context in which they are applied (Sood et al., 2007). We acknowledge that by focusing the review on synchronous "remote consultations", we may limit the generalisability of the findings to the broader area of telemental health, such as asynchronous modalities. Another possible limitation is the exclusion of grey literature. During the pandemic, many brief reports and commentaries were quickly published outlining how organisations adopted remote consultations and it is possible that we may have missed some important perspectives.

As we limited the search to studies in the English, it is possible that we missed relevant studies, which could be a reason why only three studies were conducted in low- or middle-income countries. This may limit the applicability of findings to these countries and future research of telemental health implementation in low-resource contexts is warranted. In addition, the prominence of studies conducted in hospital outpatient settings may limit the applicability of the findings to smaller organisations. Finally, considering the majority of studies were published during the pandemic, this review is limited in its ability to draw comparisons between pre- and post-pandemic contexts.

**5. Conclusion**

This review aimed to identify patients' and providers' perspectives on the factors that influence the implementation of remote consultations for community-dwelling patients with mental health conditions. While many studies have explored the adoption of telemental services during the pandemic, this review draws together research across various mental

health settings and services to provide an overarching view of some of the key considerations to the future of remote consultations. Our findings indicate that the views, preferences, and needs of patients and providers are important factors to the implementation of remote consultations. The review highlights several gaps in the research that need to be addressed, including understanding long-term acceptability and cost-effectiveness, and solutions to lessen digital barriers to access. Potential implications of the findings include taking into account the individual needs and preferences of patients when delivering remote mental health consultations.

**Ethical approval and consent to participate**

Ethical approval was not required.

**Consent for publication**

Not applicable.

**Availability of data and materials**

Not applicable.

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## Contributors

All authors contributed to conceptualisation and methodology. EG drafted the manuscript and contributed to data curation. All authors contributed to reviewing and editing.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A. Supplementary data

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## References

- Al-Mahrouqi, T., Al-Alawi, K., Al-Alawi, M., Al Balushi, N., Al Ghailani, A., Al Sabti, H., Al Sinawi, H., 2022. A promising future for tele-mental health in Oman: a qualitative exploration of clients and therapists' experiences. *SAGE Open Med* 10, 1–13.
- Alhajri, N., Simsekler, M.C.E., Alfasali, B., Alhashmi, M., AlGhatrif, M., Balalaa, N., Al Ali, M., Almaashari, R., Al Memari, S., Al Hosani, F., Al Zaabi, Y., Almazroui, S., Alhashemi, H., Baltatu, O.C., 2021. Physicians' attitudes toward telemedicine consultations during the COVID-19 pandemic: cross-sectional study. *JMIR Med. Inform.* 9 (6), e29251.
- AlRasheed, R., Woodard, G.S., Nguyen, J., Daniels, A., Park, N., Berliner, L., Dorsey, S., 2022. Transitioning to telehealth for COVID-19 and beyond: perspectives of community mental health clinicians. *J. Behav. Health Serv. Res.* <https://doi.org/10.1007/s11414-022-09799-z>.
- Appleton, R., Williams, J., Vera San Juan, N., Needle, J.J., Schlieff, M., Jordan, H., Sheridan Rains, L., Goulding, L., Badhan, M., Roxburgh, E., Barnett, P., Spyridonidis, S., Tomaskova, M., Mo, J., Harju-Seppanen, J., Haime, Z., Casetta, C., Papamichail, A., Lloyd-Evans, B., Simpson, A., Sevdalis, N., Gaughran, F., Johnson, S., 2021. Implementation, adoption, and perceptions of telemental health during the COVID-19 pandemic: systematic review. *J. Med. Internet Res.* 23 (12), e31746.
- Aronowitz, S.V., Engel-Rebitzer, E., Dolan, A., Oyekanmi, K., Mandell, D., Meisel, Z., South, E., Lowenstein, M., 2021. Telehealth for opioid use disorder treatment in low-barrier clinic settings: an exploration of clinician and staff perspectives. *Harm Reduct. J.* 18 (1).
- Ashcroft, R., Donnelly, C., Dancy, M., Gill, S., Lam, S., Kourgiantakis, T., Adamson, K., Verrilli, D., Dolovich, L., Kirvan, A., Mehta, K., Sur, D., Brown, J.B., 2021. Primary care teams' experiences of delivering mental health care during the COVID-19 pandemic: a qualitative study. *BMC Fam. Pract.* 22 (1), 143.
- Backhaus, A., Agha, Z., Maglione, M.L., Repp, A., Ross, B., Zuest, D., Rice-Thorp, N.M., Lohr, J., Thorp, S.R., 2012. Videoconferencing psychotherapy: a systematic review. *Psychol. Serv.* 9 (2), 111–131.
- Barnett, P., Goulding, L., Casetta, C., Jordan, H., Sheridan-Rains, L., Steare, T., Williams, J., Wood, L., Gaughran, F., Johnson, S., 2021. Implementation of telemental health services before COVID-19: rapid umbrella review of systematic reviews. *J. Med. Internet Res.* 23 (7), e26492.
- Bashshur, R.L., Shannon, G.W., Bashshur, N., Yellowlees, P.M., 2016. The empirical evidence for telemedicine interventions in mental disorders. *Telemed. J. e Health* 22 (2), 87–113.
- Batastini, A.B., Paprzycki, P., Jones, A.C.T., MacLean, N., 2021. Are videoconferenced mental and behavioral health services just as good as in-person? A meta-analysis of a fast-growing practice. *Clin. Psychol. Rev.* 83, 101944.
- Benudis, A., Re'em, Y., Kanellopoulos, D., Moreno, A., Zonana, J., 2022. Patient and provider experiences of telemental health during the COVID-19 pandemic in a New York City academic medical center. *Psychiatr. Res.* 311, 114496.
- Buckman, J.E.J., Saunders, R., Leibowitz, J., Minton, R., 2021. The barriers, benefits and training needs of clinicians delivering psychological therapy via video. *Behav. Cognit. Psychother.* 49 (6), 1–25.
- Budhwani, S., Fujioka, J.K., Chu, C., Baranek, H., Pus, L., Wasserman, L., Vigod, S., Martin, D., Agarwal, P., Mukerji, G., 2021. Delivering mental health care virtually during the COVID-19 pandemic: qualitative evaluation of provider experiences in a scaled context. *JMIR Form Res* 5 (9), e30280.
- Bunnell, B.E., Barrera, J.F., Paige, S.R., Turner, D., Welch, B.M., 2020. Acceptability of telemedicine features to promote its uptake in practice: a survey of community telemental health providers. *Int. J. Environ. Res. Publ. Health* 17 (22).
- Cantone, D., Guerriera, C., Architravo, M., Alfano, Y.M., Cioffi, V., Moretto, E., Mosca, L., Longobardi, T., Muzii, B., Maldonato, N.M., Sperandeo, R., 2021. A sample of Italian psychotherapists express their perception and opinions of online psychotherapy during the covid-19 pandemic. *Riv. Psichiatr.* 56 (4), 198–204.
- Car, J., Koh, G.C., Foong, P.S., Wang, C.J., 2020. Video consultations in primary and specialist care during the covid-19 pandemic and beyond. *BMJ* 371, m3945.
- Chen, J.A., Chung, W.J., Young, S.K., Tuttle, M.C., Collins, M.B., Darghouth, S.L., Longley, R., Levy, R., Razafsha, M., Kerner, J.C., Wozniak, J., Huffman, J.C., 2020. COVID-19 and telepsychiatry: early outpatient experiences and implications for the future. *Gen. Hosp. Psychiatr.* 66, 89–95.
- Christensen, L.F., Moller, A.M., Hansen, J.P., Nielsen, C.T., Gildberg, F.A., 2020. Patients' and providers' experiences with video consultations used in the treatment of older patients with unipolar depression: a systematic review. *J. Psychiatr. Ment. Health Nurs.* 27 (3), 258–271.
- Christensen, L.F., Wilson, R., Hansen, J.P., Nielsen, C.T., Gildberg, F.A., 2021. A qualitative study of patients' and providers' experiences with the use of videoconferences by older adults with depression. *Int. J. Ment. Health Nurs.* 30 (2), 427–439.
- Clarke, G., Yarborough, B.J., 2013. Evaluating the promise of health IT to enhance/expand the reach of mental health services. *Gen. Hosp. Psychiatr.* 35 (4), 339–344.
- Connolly, S.L., Miller, C.J., Lindsay, J.A., Bauer, M.S., 2020. A systematic review of providers' attitudes toward telemental health via videoconferencing. *Clin. Psychol.* 27 (2), e12311.
- Costa, M., Reis, G., Pavlo, A., Bellamy, C., Ponte, K., Davidson, L., 2021. Tele-mental health utilization among people with mental illness to access care during the COVID-19 pandemic. *Community ment. Health J* 57 (4), 720–726.
- Cowan, K.E., McKean, A.J., Gentry, M.T., Hilty, D.M., 2019. Barriers to use of telepsychiatry: clinicians as gatekeepers. *Mayo Clin. Proc.* 94 (12), 2510–2523.
- Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A., Lowery, J.C., 2009. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement. Sci.* 4 (1), 50.
- Das, S., Manjunatha, N., Kumar, C.N., Math, S.B., Thirthalli, J., 2020. Tele-psychiatric after care clinic for the continuity of care: a pilot study from an academic hospital. *Asian J. Psychiatry* 48, 101886.
- Doran, J.M., Lawson, J.L., 2021. The impact of COVID-19 on provider perceptions of telemental health. *Psychiatr. Q.* 92 (3), 1241–1258.
- Douglas, M.D., Xu, J., Heggs, A., Wrenn, G., Mack, D.H., Rust, G., 2017. Assessing telemedicine utilization by using medicaid claims data. *Psychiatr. Serv.* 68 (2), 173–178.
- Dovigi, E., Kwok, E.Y.L., English, J.C., 2020. A framework-driven systematic review of the barriers and facilitators to teledermatology implementation. *Curr. Dermatol. Rep.* 1–9.
- Eruchalu, C.N., Pichardo, M.S., Bharadwaj, M., Rodriguez, C.B., Rodriguez, J.A., Bergmark, R.W., Bates, D.W., Ortega, G., 2021. The expanding digital divide: digital health access inequities during the COVID-19 pandemic in New York city. *J. Urban Health* 98 (2), 183–186.
- Frank, H.E., Grumbach, N.M., Conrad, S.M., Wheeler, J., Wolff, J., 2021. Mental health services in primary care: evidence for the feasibility of telehealth during the COVID-19 pandemic. *J. Affect. Disord.* 5, 100146.
- Frayn, M., Fojtu, C., Juarascio, A., 2021. COVID-19 and binge eating: patient perceptions of eating disorder symptoms, tele-therapy, and treatment implications. *Curr. Psychol.* 40 (12), 6249–6258.
- Freske, E., Malczyk, B.R., 2021. COVID-19, rural communities, and implications of telebehavioral health services: addressing the benefits and challenges of behavioral health services via telehealth in Nebraska. *Societies* 11 (4).
- Frittgen, E.-M., Haltaufderheide, J., 2022. 'Can you hear me?': communication, relationship and ethics in video-based telepsychiatric consultations. *J. Med. Ethics* 48 (1), 22.
- Frye, W.S., Gardner, L., Campbell, J.M., Katzenstein, J.M., 2022a. Implementation of telehealth during COVID-19: implications for providing behavioral health services to pediatric patients. *J. Child Health Care* 26 (2), 172–184.
- Frye, W.S., Gardner, L., Mateus, J.S., 2022b. Utilising telemental health in a paediatric outpatient psychology clinic: therapeutic alliance and outcomes. *Counsell. Psychother. Res. J.* 22 (2), 322–330.
- Galvin, E., Desselle, S., Gavin, B., Quigley, E., Flear, M., Kilbride, K., McNicholas, F., Cullinan, S., Hayden, J., 2021. Implementation of telemedicine consultations for people with mental health conditions in the community: a protocol for a systematic review. *HRB Open Res.* <https://doi.org/10.12688/hrbopenres.13435.2>.
- Gately, M.E., Tickle-Degnen, L., McLaren, J.E., Ward, N., Ladin, K., Moo, L.R., 2022. Factors influencing barriers and facilitators to in-home video telehealth for dementia management. *Clin. Gerontol.* 45 (4), 1020–1033.
- Gentry, M.T., Puspitarani, A.J., McKean, A.J., Williams, M.D., Breiting, S., Geske, J.R., Clark, M.M., Moore, K.M., Frye, M.A., Hilty, D.M., 2021. Clinician Satisfaction with Rapid Adoption and Implementation of Telehealth Services during the COVID-19 Pandemic. *Telemedicine and E-Health.* <https://doi.org/10.1089/tmj.2020.0575>.
- Goetter, E.M., Iaccarino, M.A., Tanev, K.S., Furbish, K.E., Xu, B., Faust, K.A., 2022. Telemental health uptake in an outpatient clinic for veterans during the COVID-19 pandemic and assessment of patient and provider attitudes. *Prof. Psychol. Res. Pract.* 53 (2), 151–159.
- Guaiana, G., Mastrangelo, J., Hendriks, S., Barbui, C., 2020. A Systematic Review of the Use of Telepsychiatry in Depression. *Community Ment. Health J.*, pp. 1–8.
- Guinart, D., Marcy, P., Hauser, M., Dwyer, M., Kane, J.M., 2020. Patient Attitudes toward telepsychiatry during the COVID-19 pandemic: a nationwide, multisite survey. *JMIR Ment Health* 7 (12), e24761.
- Gullslett, M.K., Kristiansen, E., Nilsen, E.R., 2021. Therapists' experience of video consultation in specialized mental health services during the COVID-19 pandemic: qualitative interview study. *JMIR Hum. Factors* 8 (3), e23150.

- Hong, Q.N., Fabregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.P., Griffiths, F., Nicolau, B., O' Cathain, A., Rousseau, M.C., Vedel, I., Pluye, P., 2018. The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Educ. Inf.* 34 (4), 285–291.
- Hubley, S., Lynch, S.B., Schneck, C., Thomas, M., Shore, J., 2016. Review of key telepsychiatry outcomes. *World J. Psychiatr.* 6 (2), 269–282.
- Hunsinger, N., Hammarlund, R., Crapanzano, K., 2021. Mental health appointments in the era of COVID-19: experiences of patients and providers. *Ochsner J.* 21 (4), 335–340.
- Husain, M.O., Gratz, D., Husain, M.I., Naeem, F., 2021. Mental illness in the post-pandemic world: digital psychiatry and the future. *Front. Psychol.* 12, 567426.
- Kaigwa, L.C., Njenga, F., Onger, L., Nguithi, A., Mugane, M., Mbugua, G.M., Anundo, J., Kimari, M.Z., Onono, M., 2022. Implementation of telepsychiatry in Kenya: acceptability study. *BJPsych Open* 8 (3).
- Kopec, K., Janney, C.A., Johnson, B., Spykerman, K., Ryskamp, B., Achtyes, E.D., 2020. Rapid transition to telehealth in a community mental health service provider during the COVID-19 pandemic. *Prim. Care Companion CNS Disord* 22 (5).
- Lima, D.P., Queiroz, I.B., Carneiro, A.H.S., Pereira, D.A.A., Castro, C.S., Viana-Júnior, A. B., Nogueira, C.B., Coelho Filho, J.M., Lôbo, R.R., Roriz-Filho, J.S., Braga-Neto, P., 2022. Feasibility indicators of telemedicine for patients with dementia in a public hospital in Northeast Brazil during the COVID-19 pandemic. *PLoS One* 17 (5), e0268647.
- Lipschitz, J.M., Connolly, S.L., Van Boxel, R., Potter, J.R., Nixon, N., Bidargaddi, N., 2022. Provider perspectives on telemental health implementation: lessons learned during the COVID-19 pandemic and paths forward. *Psychol. Serv.* <https://doi.org/10.1037/ser0000625>.
- Lockard, R., Priest, K.C., Gregg, J., Buchheit, B.M., 2022. A qualitative study of patient experiences with telemedicine opioid use disorder treatment during COVID-19. *Subst. Abuse* 43 (1), 1150–1157.
- Madigan, S., Racine, N., Cooke, J.E., Korczak, D.J., 2021. COVID-19 and telemental health: benefits, challenges, and future directions. *Can. Psychol.* 62 (1), 5–11.
- Maher, M., Reilly, K., Smith, E., Coyne, E., Murphy, S., Wilson, C., 2022. Receiving teletherapy in Ireland: the experiences of service users in the public mental health system. *Counsell. Psychother. Res. J.* 1–13, 00.
- Mitchell, J.E., Crosby, R.D., Wonderlich, S.A., Crow, S., Lancaster, K., Simonich, H., Swan-Kremer, L., Lysne, C., Cook Myers, T., 2008. A randomized trial comparing the efficacy of cognitive-behavioral therapy for bulimia nervosa delivered via telemedicine versus face-to-face. *Behav. Res. Ther.* 46 (5), 581–592.
- Moeller, A.M., Hansen, J.P., Andersen, P.T., 2022. Patients' experiences of home-based psychotherapy via videoconference: a qualitative study. *Arch. Psychiatr. Nurs.* 39, 91–96.
- Moo, L.R., Gately, M.E., Jafri, Z., Shirk, S.D., 2020. Home-Based video telemedicine for dementia management. *Clin. Gerontol.* 43 (2), 193–203.
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., Cannon, M., Correll, C.U., Byrne, L., Carr, S., Chen, E.Y.H., Gorwood, P., Johnson, S., Karkkainen, H., Krystal, J.H., Lee, J., Lieberman, J., Lopez-Jaramillo, C., Mannikko, M., Phillips, M.R., Uchida, H., Vieta, E., Vita, A., Arango, C., 2020. How mental health care should change as a consequence of the COVID-19 pandemic. *Lancet Psychiatr.* 7 (9), 813–824.
- Muir, S.D., de Boer, K., Nedeljkovic, M., Meyer, D., 2020. Barriers and facilitators of videoconferencing psychotherapy implementation in veteran mental health care environments: a systematic review. *BMC Health Serv. Res.* 20 (1), 999.
- Nicholas, J., Bell, I.H., Thompson, A., Valentine, L., Simsir, P., Sheppard, H., Adams, S., 2021. Implementation lessons from the transition to telehealth during COVID-19: a survey of clinicians and young people from youth mental health services. *Psychiatr. Res.* 299, 113848.
- Ollwill, C., Mc Nally, D., Douglas, L., 2021. Psychiatrist experience of remote consultations by telephone in an outpatient psychiatric department during the COVID-19 pandemic. *Ir. J. Psychol. Med.* 38 (2), 132–139.
- Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E., Chou, R., Glanville, J., Grimshaw, J.M., Hrobjartsson, A., Lalu, M.M., Li, T., Loder, E.W., Mayo-Wilson, E., McDonald, S., McGuinness, L.A., Stewart, L.A., Thomas, J., Tricco, A.C., Welch, V.A., Whiting, P., Moher, D., 2021. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 372, n71.
- Puyat, J.H., Kazanjian, A., Wong, H., Goldner, E., 2017. Comorbid chronic general health conditions and depression care: a population-based analysis. *Psychiatr. Serv.* 68 (9), 907–915.
- Qian, F., Hastings, J.F., Ahmed, R., 2021. Overcoming telemental health disparities during the COVID-19 pandemic. *Int. J. Qual. Health Care* 33 (3), mzab127.
- Romanchych, E., Desai, R., Bartha, C., Carson, N., Korenblum, M., Monga, S., 2022. Healthcare providers' perceptions of virtual-care with children's mental health in a pandemic: a hospital and community perspective. *Early Interv. Psychiatry* 16 (4), 433–443.
- Sandelowski, M., 2000. Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. *Res. Nurs. Health* 23 (3), 246–255.
- Schow, D.C., Thomson, A., Trusty, W.T., Buchi-Fotre, L., 2022. Use of a research as intervention approach to explore telebehavioral health services during the COVID-19 pandemic in southeastern Idaho. *J. Prim. Care Community Health* 13, 1–11.
- Schriger, S.H., Klein, M.R., Last, B.S., Fernandez-Marcote, S., Dallard, N., Jones, B., Beidas, R.S., 2022. Community mental health clinicians' perspectives on telehealth during the COVID-19 pandemic: mixed methods study. *JMIR Pediatr. Parent.* 5 (1).
- Schubert, N.J., Backman, P.J., Bhatla, R., Corace, K.M., 2019. Telepsychiatry and patient-provider concordance. *Can. J. Rural Med.* 24 (3), 75–82.
- Seritan, A.L., Heiry, M., Iosif, A.-M., Dodge, M., Ostrem, J.L., 2019. Telepsychiatry for patients with movement disorders: a feasibility and patient satisfaction study. *J. Clin. Mov. Disord.* 6 (1), 2.
- Severe, J., Tang, R., Horbatch, F., Onishchenko, R., Naini, V., Blazek, M.C., 2020. Factors influencing patients' initial decisions regarding telepsychiatry participation during the COVID-19 pandemic: telephone-based survey. *JMIR form. Res.* 4 (12), e25469.
- Shang, Z., Arnaert, A., Hindle, Y., Debe, Z., Cote-Leblanc, G., Saadi, A., 2021. Experiences of psychiatrists and support staff providing telemental health services to Indigenous peoples of Northern Quebec. *BMC Health Serv. Res.* 21 (1), 85.
- Sheridan Rains, L., Johnson, S., Barnett, P., Steare, T., Needle, J.J., Carr, S., Lever Taylor, B., Bentivegna, F., Edbrooke-Childs, J., Scott, H.R., Rees, J., Shah, P., Lomani, J., Chipp, B., Barber, N., Dedat, Z., Oram, S., Morant, N., Simpson, A., Group, C., 2021. Early impacts of the COVID-19 pandemic on mental health care and on people with mental health conditions: framework synthesis of international experiences and responses. *Soc. Psychiatr. Psychiatr. Epidemiol.* 56 (1), 13–24.
- Siegel, A., Zuo, Y., Moghaddamcharkari, N., McIntyre, R.S., Rosenblat, J.D., 2021. Barriers, benefits and interventions for improving the delivery of telemental health services during the coronavirus disease 2019 pandemic: a systematic review. *Curr. Opin. Psychiatr.* 34 (4), 434–443.
- Sloan, D.M., Gallagher, M.W., Feinstein, B.A., Lee, D.J., Pruneau, G.M., 2011. Efficacy of telehealth treatments for posttraumatic stress-related symptoms: a meta-analysis. *Cognit. Behav. Ther.* 40 (2), 111–125.
- Sood, S., Mbarika, V., Jugoo, S., Dookhy, R., Doarn, C.R., Prakash, N., Merrell, R.C., 2007. What is telemedicine? A collection of 104 peer-reviewed perspectives and theoretical underpinnings. *Telemedicine and e-Health* 13 (5), 573–590.
- Stein, D.J., Naslund, J.A., Bantjes, J., 2022. COVID-19 and the global acceleration of digital psychiatry. *TLancet Psychiatry* 9 (1), 8–9.
- Stern, C., Lizarondo, L., Carrier, J., Godfrey, C., Rieger, K., Salmond, S., Apostolo, J., Kirkpatrick, P., Loveday, H., 2020. Methodological guidance for the conduct of mixed methods systematic reviews. *JB Evid. Synth.* 18 (10), 2108–2118.
- Sugarman, D.E., Horvitz, L.E., Greenfield, S.F., Busch, A.B., 2021. Clinicians' perceptions of rapid scale-up of telehealth services in outpatient mental health treatment. *Telemed. J. e Health* 27 (12), 1399–1408.
- Thomas, J., Harden, A., 2008. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med. Res. Methodol.* 8 (1), 45.
- Thomas, N., McDonald, C., de Boer, K., Brand, R.M., Nedeljkovic, M., Seabrook, L., 2021. Review of the current empirical literature on using videoconferencing to deliver individual psychotherapies to adults with mental health problems. *Psychol. Psychother.* 94 (3), 854–883.
- Trachsel, M., Sedlakova, J., 2022. Ethics of telepsychiatry versus face-to-face treatment: let the patients make their autonomous choice. *J. Med. Ethics* 48 (1), 32–33.
- Tuijt, R., Rait, G., Frost, R., Wilcock, J., Manthorpe, J., Walters, K., 2021. Remote primary care consultations for people living with dementia during the COVID-19 pandemic: experiences of people living with dementia and their carers. *Br. J. Gen. Pract.* 71 (709), e574–e582.
- Uscher-Pines, L., Sousa, J., Raja, P., Mehrotra, A., Barnett, M.L., Huskamp, H.A., 2020. Suddenly becoming a "virtual doctor": experiences of psychiatrists transitioning to telemedicine during the COVID-19 pandemic. *Psychiatr. Serv.* 71 (11), 1143–1150.
- Wrape, E.R., McGinn, M.M., 2019. Clinical and ethical considerations for delivering couple and family therapy via telehealth. *J. Marital Fam. Ther.* 45 (2), 296–308.
- Wylter, H., Liebrezn, M., Ajdacic-Gross, V., Seifritz, E., Young, S., Burger, P., Buadze, A., 2021. Treatment provision for adults with ADHD during the COVID-19 pandemic: an exploratory study on patient and therapist experience with on-site sessions using face masks vs. telepsychiatric sessions. *BMC Psychiatr.* 21 (1), 237.
- Yellowlees, P., Nafiz, N., 2010. The psychiatrist-patient relationship of the future: anytime, anywhere? *Harv. Rev. Psychiatr.* 18 (2), 96–102.