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3   Telepsychiatry: learning from the

4   pandemic

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Summary

This article draws on research and clinical experience to discuss how and when to use video consultations in mental health settings. The appropriateness and impact of virtual consultations are influenced by the patient's clinical needs and social context as well as by service-level socio-technical and logistical factors.

Introduction

Telepsychiatry is the delivery of psychiatric and mental health services through telecommunications technology, usually video. Before the pandemic, research had suggested that synchronous video consultations were safe and effective for selected patients with depression [1], anxiety [2], autism [3], psychosis [4], geriatric psychiatry [5], child and adolescent mental health needs [6], disaster response [7], as well as psychotherapy [8] and some forensic mental health uses [9]. Efforts to create guidance and systematically benchmark the quality of services had begun [10].

Outside the research setting, however, mainstream use of telepsychiatry was slow before the pandemic, limited by clinicians' concerns around regulation, licensure and credentialing (e.g. if the clinician is seeing patients in a different country or territory), patient privacy, safety, the logistics of managing mental health crises and concerns about quality of care [11-14]. As described below, the pandemic created a strong policy push to develop and extend such services. Rapid consensus methods produced useful preliminary guidance for setting up and running in-pandemic telepsychiatry services, which were later replaced by more definitive guidance—both generic [15] and country-specific [16-18]. Many patients and clinicians had their first teleconsultation during the pandemic.

FIGURE 1

This article summarises what we have learnt to date about the place—and the challenges—of telepsychiatry as we look towards a post-pandemic future. We have structured it around the Planning and Evaluating Remote Consultation Services (PERCS) framework [19], which reminds us that sustained adoption of remote consultation services at scale will require attention to system, organisational, technology and staff domains (including policy, regulatory, logistical and staff wellbeing concerns). Even when this underpinning infrastructure is established, the question of whether a telepsychiatry consultation is appropriate for an individual patient requires a case-by-case assessment of the patient, their home and family context, their condition, and the clinical relationship. Below, we consider all these domains in turn.

Multiple domains to consider in a telepsychiatry service

1. The system context: clinical need, policy push and regulatory green light

The pandemic produced a 'burning platform' for the introduction of telepsychiatry. High clinical need for mental health services occurred in the context of the urgent need to minimise face-to-face encounters. Relaxation of regulatory constraints [20, 21] led to a dramatic increase in the uptake of telepsychiatry models [22, 23]. This very positive system context is generally depicted as having produced, in a crisis context, relatively good access to mental health services, efficient use of specialists, high patient and staff satisfaction, and smooth transitions of care [23-30]. But as the immediate crisis subsides and the system tries to move to 'business as usual', some patients have begun to question whether they are being short-changed with remote forms of care [31] and questions have rightly been raised about equity and digital inclusion [19]. At the time of writing, there are many unanswered questions about how regulatory and clinical governance requirements need to adapt to accommodate the effective, safe and equitable use of video and other remote modalities.

2. The organisational domain: workflows and the 'virtual patient'

Clinical services which introduced remote forms of consulting ad hoc and in haste are now facing the challenge of how to align these with traditional face-to-face services in a way that supports clinical excellence and quality of care in a 'business-as-usual' context. Of particular relevance to mental health services is patient safeguarding and meeting ethical and regulatory standards (e.g. for undertaking and documenting informed consent, emergency management and medication prescribing) [18]. These changes may require not only reworking of clinical and administrative workflows but also changes to the risk management and governance policies that underpin them (e.g. in the processes and requirements for compulsory detention of a patient under mental health legislation).

An under-appreciated aspect of telehealth is that all clinical consultations are embedded in wider organisational routines (defined as recurring patterns of interdependent action carried out by multiple actors). The routines which support face-to-face consultations are so deeply embedded in organisational life (and in our internal mental models) that they often go unnoticed. But whether the patient is seen face-to-face or remotely, coordination has to happen to ensure that an appointment is sent, the medical record (along with test results) is made available to the clinician, the patient appears at the right time in the right waiting room, and 'paperwork' tasks (e.g. writing to the GP,

105   booking a follow-up, checking test results) are completed afterwards. Considerable work is usually

106   needed to align all these administrative routines to accommodate and sustain use of video

107   consultations at scale.

108   A significant challenge in this regard is dealing with the *virtual* presence of the patient. In contrast to

109   a face-to-face clinic, managing the patient's 'arrival' at the clinic and their 'entry' into the

110   consultation room, and arranging a follow-up appointment cannot be done by sending the patient to

111   queue at different desks; these flows must be built into the system using software. Administrative

112   systems must also be configured to distinguish between different appointment types (e.g. video,

113   telephone, face to face) and generate appropriate documentation and communication channels.

114   Scale-up of telepyschiatry during the pandemic required significant restructuring of patient care

115   pathways alongside temporary suspension of regulatory constraints [21, 22].

3. Technologies—and the infrastructure they run on

117   The pandemic prompted rapid development of bespoke technologies for video consulting which

118   were vastly more intuitive and user-friendly than earlier generations. Whilst enthusiasts may favour

119   'nice-to-have' features, as a general rule basic dependability is preferable over advanced

120   functionality, and investment decisions for particular technologies and platforms should consider

121   how the design relates to the capabilities (e.g. cognitive functioning, anxiety levels), preferences and

122   digital set-up (e.g. broadband connection, data package) of both patients and clinicians.

123   In psychiatry and mental health contexts, most diagnostic and treatment information is gathered

124   through talk and visual interaction. Mental health consultations are thus potentially well-suited to

125   video technology, but set-up is important. The camera, for example, should be positioned to

126   maximise non-verbal communication and therapeutic presence (e.g. making sure it captures face

127   and hand expressions and avoid the need for users to concentrate on on staying 'in view' of one

128   another) [32]. Clinicians and patients will need to consider how the background that is visible to the

129   other party contributes to impression management, trust and sense of privacy. The limited view

130   achieved on video will fail to capture all aspects of body language and behaviour (e.g. a tapping foot

131   in an anxious patient).

132   Video and audio connection must be sufficiently high-quality to ensure that expressions are visible

133   and conversation flows without too much lag [33]. Minor technical breakdowns (e.g. difficulty

134   establishing audio connection or temporary freezing of the video) tend not to disrupt the clinical

135   interaction as they are typically easy to resolve so long as both parties have adequate technical skills

136   (but can be prohibitive if they do not) [33]. Contingency plans are needed in case of technical

137 failures (e.g. agreeing a backchannel, such as telephone, in case of cut-out and plans for dealing with

138 patient anxiety).

139 Technologies are rarely plug-and-play; they require infrastructure including a physical scaffolding

140 (hardware and software, as well as buildings, wires, connections, clinical record templates, charts

141 and so on), people (the individuals whose roles and interactions make the service possible and the

142 training and oversight of those individuals), and the standards and guidance needed for the system

143 to work effectively, safely and legally. Efforts to implement and spread remote consultation services

144 often fail or stall due to problems interfacing the new technology with local material constraints (e.g.

145 physical space), legacy computer systems, patterns of working, and historically-established

146 standards [34].

4. The staff domain: acceptance, well-being, training

147

148 Most technologies in healthcare fail because clinicians do not use them. The research literature

149 shows that clinicians are overwhelmingly driven by standards of professional excellence, and the

150 main reason why they fail to adopt technologies (or adopt but soon abandon them) is concern about

151 potential compromises to the quality and safety of care [35]. Training clinicians to use video

152 technologies is important—but if widespread and sustained uptake and use of telepsychiatry is the

153 goal, careful attention must also be paid to professional concerns about the quality of the

154 consultation (e.g. the need to see the whole patient not just their head and torso), risk and safety,

155 confidentiality, and equity [19]. These concerns must be considered both at the level of clinical

156 guidelines (which can give broad indications for when telepsychiatry is more or less suitable) and on

157 an individual, case-by-case basis (see examples below). Some staff may prefer to work remotely (e.g.

158 if they are clinically vulnerable themselves). Others—particularly less experienced clinicians—may

159 become stressed, burnt out and demoralised, partly because remote consultations are more

160 cognitively demanding and partly because they may have fewer opportunities for the clinical training

161 and mentoring they need. Hence, the policy push to expand telepsychiatry for reasons of 'efficiency'

162 must be tempered by the needs and preferences of the workforce.

5. The reason for consulting

163

164 Whilst some clinical conditions lend themselves to video format more than others, every patient is

165 different and there are few if any absolute contraindications to video consulting. Box 1 gives some

166 fictional cases to illustrate how the assessment of the clinical reason for consulting does not

167 *determine* the optimum modality. Rather, the clinical need(s) must be assessed in the light of

168   patient, home and family factors and the nature of (and need for) the therapeutic relationship,

169   which are considered in the next sections.

170   BOX 1

171

172   In Case 1, a video consultation for this patient with autism seems appropriate, for several reasons.

173   The patient is already digitally literate and his home has a suitable broadband connection and

174   computer hardware. He has previously expressed a preference for remote consultations and has

175   experience of these. Unlike some teenagers, he has a private space from which to connect and his

176   parents have a track record of respecting his privacy during his medical appointments. A trained

177   clinician has established that he is not in a high-risk category.

178

179   In Case 2, there are clinical, social and technical reasons why a video consultation may not be the

180   best choice. As the GP has discovered, suspected mania is not easily assessed by telephone. A video

181   connection would allow visual assessment of the patient's demeanour and behaviour, allowing a

182   more confident diagnosis, but she is uncooperative and unlikely to engage. From the history, she

183   may require legal detention measures. She is likely to require a change in medication but it is not

184   clear how this would be supplied to her. The family's digital set-up is limited and data poverty mean

185   they will not be comfortable with the lengthy consultation that is likely needed, and the encounter

186   may be thwarted by poor technical connection.

187

188   Case 3 illustrates the complex challenges of institutionalised psychogeriatric patients. This patient

189   clearly needs a full clinical and psychiatric assessment as well as a medication review. Whereas in

190   the previous cases, the overall picture points clearly in favour (Case 1) and against (Case 2)

191   attempting a video consultation, in this case an emergent approach may be needed (e.g. discuss the

192   option of video with staff who know Daniel and take their views into account). It may be that a video

193   consultation could be attempted as a first step, but extended to a face-to-face assessment if it

194   proves clinically, socially or technically inadequate.

195   *6. The patient: capacity, capability, comorbidities, preferences*

196   Whilst guidance now exists on the principles of safe and effective telepsychiatry [15-18], and

197   provision in practice will inevitably be constrained by what services are available locally and what

198   capacity exists in those services, the decision as to whether a particular patient should be seen

199   remotely or face-to-face necessarily involves judgement. The decision should take account of the

200   patient's capabilities and capacity (e.g. English fluency, sensory or cognitive impairment, capacity to

201   consent) [16, 18] as well as their comorbidities, and consider how all these may influence

202   contingency plans (safety-netting) and other risk management strategies. Unless there are over-

203   riding reasons not to, patients should be given a choice so they can select their preferred format.

204   Careful consideration must be paid to 'high risk' issues (e.g. risk of violence, aggression or self-harm,

205   stability of the patient's condition, and intoxication).

206   ## 7. The home and family: support, structural challenges and digital

207   ## inclusion

208   Consulting from home may be possible and preferred—but the patient may not have a home. There

209   may be physical limitations (e.g. lack of private, quiet space), technical ones (lack of digital

210   technologies or the infrastructure to run them), or psychosocial ones (distraction, coercion,

211   violence). Mental health patients may experience multiple jeopardy from (for example) poverty,

212   poor housing, low health literacy, weak social networks, psychological stress (e.g. from fear of crime)

213   and language and cultural discordance. To these we must now add digital inequalities, defined as

214   differential access to healthcare depending on digital access, digital literacy or both [36]. It is

215   important to go beyond a binary perspective (presence or absence of Internet access) when

216   assessing digital inclusion and consider how much bandwidth, data, IT literacy and skills, and power

217   (e.g. over who in the household has use of the computer or smartphone) people have. For patients

218   whose home set-up does not allow safe video consulting, non-digital alternatives (the option to ask

219   for a traditional face-to-face appointment) and flexibility in how remote is used (e.g. allowing

220   patients to consult with the video switched off if they prefer) are important components of a digital

221   inclusion strategy. In some settings, local health or care services can provide a private space or 'pod'

222   from which a patient can arrange to connect to their video appointment.

223   ## 8. The clinical relationship

224   Much (though perhaps not all) mental health consultations benefit from a strong therapeutic

225   alliance. Some authors have argued that the therapeutic alliance achieved via video during the

226   pandemic was comparable to that in in-person encounters (video can be seen as a vehicle for

227   building rapport and trust rather than an obstacle to achieving it) [37]. For instance, video may allow

228   the clinician to witness some of the living circumstances the patient describes in their sessions,

229   provide a comfortable space to engage in relaxation exercises, and facilitate engagement and playful

230   activities with children. The video format can even provide a preferred format for the therapeutic

231   alliance—for example for those experiencing mood disorders and interpersonal avoidance who may

232   find close contact overwhelming [37]. But this is contingent on the capabilities of the clinician to

233   account for the physical and symbolic differences in the technology-supported environment, and to

234   make adjustments to convey empathy and warmth.

235   Our previous research highlighted the 'opening' to be an important part of the consultation because

236   this is when both patient and clinician establish whether the video and/or audio connection is

237   adequate before proceeding with the consultation proper. Greetings and rapport-building should be

238   used to help put patients at ease, given that more conventional forms of prosocial interaction and

239   contact during face-to-face medical encounters (eg, shaking hands and inviting into the consultation

240   room) are absent.

241   Facial expressions and hand gestures can help compensate for loss of physical presence and body

242   language. Both clinicians and patients will also need to deal with inherent problems of latency (time

243   delay in transmission from one end of the call to the other), especially as responsiveness to what the

244   other person is saying is essential for conveying empathy and understanding. Clinicians should

245   attend to effective turn-taking—for example, using longer pauses to minimise overlap and inviting
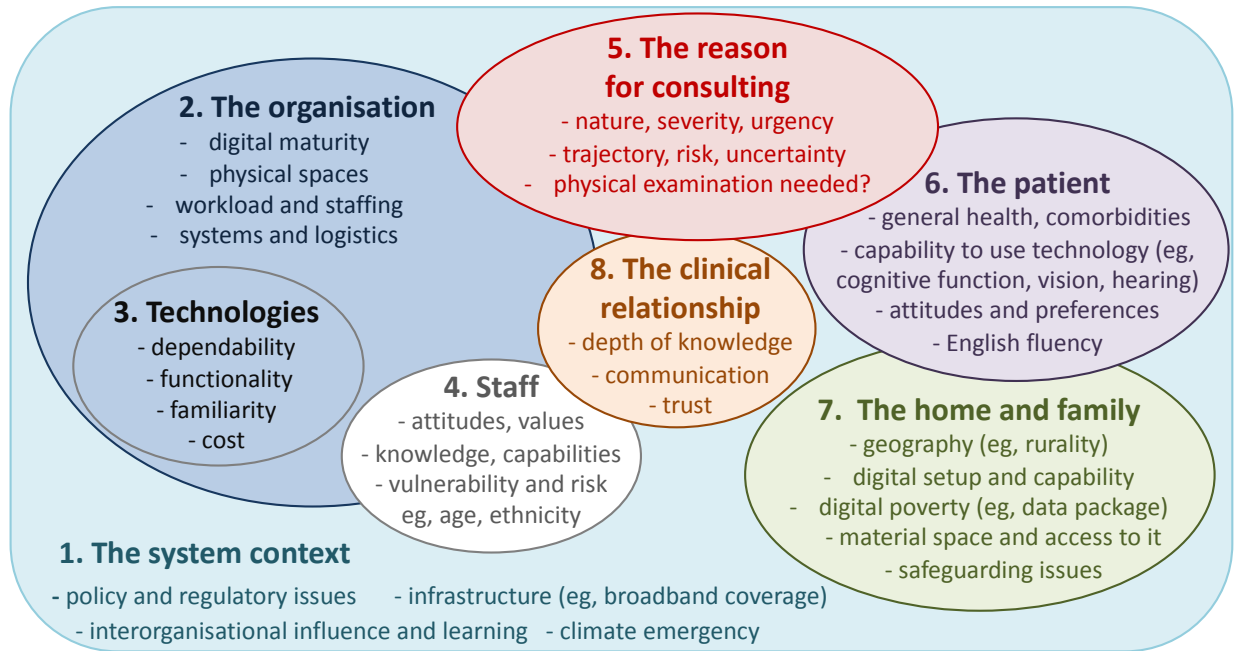
246   the patient to speak [38].

Conclusion

248   Whilst telepsychiatry is not a panacea, there is good reason to be optimistic about its potential in

249   most though not all patients and settings. There will, inevitably, be a personal and an organisational

250   learning curve before people become confident in using this new medium for clinical encounters. It

251   will be important to assess both patient and staff satisfaction and comfort with telepsychiatry

252   models over time, as increasing familiarity may lead to increased confidence and acceptance.

253   A major growth area for telepsychiatry in the next few years is likely to be refinement of the draft

254   professional guidance, competences and quality standards that have been produced to date [10, 15,

255   18]. It is important that practitioners harness and share knowledge on effective approaches through

256   communities of practice, produce rules of thumb on what is generally safe, and engage with

257   professional bodies and defence societies to develop contemporary definitions of good clinical

258   practice.

259

260   Figure 1: The PERCS (Planning and Evaluating Remote Consultation Services)

261   framework

262

5. The reason for consulting
- nature, severity, urgency
- trajectory, risk, uncertainty
- physical examination needed?

2. The organisation
- digital maturity
- physical spaces
- workload and staffing
- systems and logistics

6. The patient
- general health, comorbidities
- capability to use technology (eg, cognitive function, vision, hearing)
- attitudes and preferences
- English fluency

8. The clinical relationship
- depth of knowledge
- communication
- trust

3. Technologies
- dependability
- functionality
- familiarity
- cost

4. Staff
- attitudes, values
- knowledge, capabilities
- vulnerability and risk eg, age, ethnicity

7. The home and family
- geography (eg, rurality)
- digital setup and capability
- digital poverty (eg, data package)
- material space and access to it
- safeguarding issues

1. The system context
- policy and regulatory issues   - infrastructure (eg, broadband coverage)
- interorganisational influence and learning   - climate emergency

263

264   Adapted under Creative Commons Licence from [19]

265

1

266   Box 1: Three clinical cases

267

268   Case 1: A teenager with autism

269   Robert is a 15-year-old boy with high-functioning autism; he is well known to the Child and
270   Adolescent Mental Health Services. Before the pandemic, he attended mainstream school and had
271   been working towards his GCSE exams. He enjoys playing computer games in his bedroom and is
272   adept at programming. Because he disliked attending the hospital (he found it noisy and
273   disorienting), he had been seeing his community mental health nurse via video consultation every
274   three months. With prolonged lockdown, his routines have been disrupted and he has become
275   depressed. His mother is alarmed that he has begun to self-harm, though at present this is limited to
276   superficial cutting. His community psychiatric nurse is confident that he is not suicidal but feels he
277   should see a consultant for full assessment of his mental state and possible prescription of
278   medication.

279

280   Case 2: A patient with a possible manic episode

281   Reena is a 37-year-old waitress who lives in a remote rural setting; she has been under the care of
282   her GP for several years for mood swings. She has had several episodes of moderate depression,
283   managed by her GP with talking therapy and medication. On this occasion, Reena's husband
284   contacted the GP saying she had become agitated over the past week. The GP had tried to speak to
285   her on the phone but she was unable to continue a conversation. Her husband noted that she was
286   pacing constantly and sleeping only 2-3 hours per night, and had on one occasion left the house in
287   her underwear and had to be brought back by a neighbour. He had returned form work yesterday to
288   find her smelling of alcohol and the children unfed. The family live in rented council accommodation
289   and whilst they have a broadband connection, the husband says their data package is somewhat
290   restrictive so he hopes that the video consultation won't last more than a few minutes. Reena has
291   never used the family computer, which was bought 10 years ago and has a habit of crashing.

292

293   Case 3: A psychogeriatric patient

294   Daniel is a 76-year-old retired engineer who has been living in a residential home for two years. He
295   has diabetes, heart failure, depression, a leg ulcer and gout, as well as progressively worsening
296   cognitive function (perhaps early Alzheimer's disease). He has recently become incontinent of urine
297   (though a specimen showed no growth), and seems to be becoming slower and more withdrawn. His
298   medication includes sertraline, insulin injections, allopurinol, enalapril, and omeprazole. He has
299   begun to decline all his tablets (though he will take them with coaxing) and this morning refused to
300   have his insulin injection. The care home staff have asked for an urgent assessment. The care home
301   is well connected digitally and staff are used to supporting their clients to have video conversations
302   with their relatives and with clinicians. Daniel is chair-bound so he may co-operate to some extent
303   with a video consultation, but he may not understand that the person on the screen is a doctor.

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