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Perinatal mental telehealth: a Singaporean experience born in COVID-19

Lin Feng Hong¹, MBBS, MRCPsych, Tze-Ern Chua¹, MBBS, MMed,
Liow Ping Delphine Koh¹, DPsych, Flora Su Hui Yong¹, MCOU, BA(Hons),
Helen Yu Chen¹, MBBS, MMed

¹Department of Psychological Medicine, KK Women's and Children's Hospital, Singapore

Correspondence: Dr Hong Lin Feng, Department of Psychological Medicine, KK Women's and Children's Hospital, 100 Bukit Timah Road, Singapore 229899.
hong.lin.feng@kkh.com.sg

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Dear Sir,

Telemedicine has been of increasing interest with the incorporation of technology into the healthcare system. A World Health Organization report by in 2009 showed that Southeast Asia has the most established services for telemedicine.⁽¹⁾ Regardless of this, there has been rapid global progression in the usage of telemedicine during the COVID-19 pandemic. At the Women's Mental Wellness Services at KK Women's and Children's Hospital, Singapore, we launched telemedicine video consultation (TVC) in February 2020 when there were increasing local cases of COVID-19 infection. Since the start of the pandemic, restructuring of the clinical team and refurbishment of clinical areas within the hospital have resulted in reduced capabilities to provide traditional care and hence, the TVC initiative was born.

In the setup of TVC, multiple factors were considered, including patient suitability, choice of video platform and the incorporation of ancillary services such as laboratory investigations, medication prescription and payment. Ultimately, these were synchronised to provide a holistic experience for both the clinician and patient. The equipment required at each site is shown in Box 1. Close initial communications with our information technology department was crucial to ensure security measures, such as procurement of a hospital-approved device and setup of a secured network and videoconference account, were in place.

Box 1. Equipment required for telemedicine video consultation:

Clinical site

- Hospital-approved webcam-enabled device (laptop, computer, tablet)
- Hospital-approved secured Internet network
- Encrypted video-conference Zoom account
- Zoom software

Patient site

- Webcam-enabled device (laptop, computer, tablet, handphone)
- Secured Internet network
- Zoom software

We also complied with the local privacy law to ensure that transmitted information was encrypted, stored and handled in an appropriate manner. Suitability of patients for TVC was determined by their clinical stability, technological adequacy and willingness to engage in video consultation. Informed consent was taken after the entire process was explained and a pictorial user guide was provided to the patient. Patients were given a unique meeting ID and login password for their individual sessions. Prior to the commencement of each session, clinicians were equipped with the patient's predetermined emergency contact details to facilitate safety measures should risk escalation occur during the session. Clinicians would also identify the patient's location and all individuals present during the session. Feedback was solicited from the patient for continual improvement of the current processes.

Here, we discuss a patient who has reaped the benefits of the TVC service. Rachel (a pseudonym) has struggled with her mood and relationships since childhood. Sensitive to criticism and non-confrontational by nature, she feels anxious and guilty each time she encounters interpersonal conflict. She also had several isolated episodes of panic attack in her lifetime. Now married and pregnant for the first time, she experienced a panic attack of unprecedented severity while on her way to work. She started seeking psychiatric care soon after, in October 2019. During her psychiatric consultations, she spoke of being stressed at work because she had a colleague whom she felt picked on her. She took pains to avoid confrontation with her perceived aggressor and instead focused on producing work of irreproachable standard, which eventually led to her feeling burdened and fatigued, along with a sense of unresolved anger and helplessness. She started avoiding work and spent most of her

time brooding alone in her room. Worried about the effect of her mood on her unborn baby, she was highly motivated to get better. She engaged well in psychoeducation about her anxiety and soon started to develop some insight and confidence. She then agreed to begin therapy with a psychologist.

The COVID-19 outbreak reached Singapore in January 2020. Keen to avoid contracting the infection, especially while pregnant, Rachel decided to cancel subsequent appointments and stay home as much as possible, even though she was still symptomatic. When TVC was offered to her as an option, she accepted with alacrity. She was already familiar with videoconferencing and was equipped with a smartphone and home Wi-Fi. During the session, visual aids were shared on screen and she was able to quickly grasp psychological concepts and apply the skills taught. She particularly liked having the option to see the face of her doctor and psychologist, as in-session interpersonal issues could still be addressed using this medium. She had also been practicing mindfulness during sessions in an effort to recognise and accept her emotions. She has been feeling well enough to resume and find satisfaction in work, as well as enjoy her pregnancy.

In summary, telemedicine in psychiatry has been heavily adopted; rather than being deemed as adjunctive care, it is touted to be the new frontier in medical practice.⁽²⁾ A review showed that telepsychiatry is as effective as traditional consultations.⁽³⁾ Psychiatric diagnoses that are made via telemedicine are found to have good inter-rater reliability and validity.⁽³⁾ Factors to consider when implementing telemedicine may include cost, and this is often a significant factor that impedes its expansion in developing countries because of less robust technology infrastructure and technical expertise. In developed countries, there are more concerns with regard to legislation, privacy and confidentiality issues.⁽¹⁾ Indeed, since the COVID-19 pandemic, the rules and regulations governing telepsychiatry services have changed dramatically, the most radical being adjustments to Medicaid to ensure services are

widely accessible.⁽⁴⁾ In Singapore, the National Telemedicine Guidelines and the Licensing and Experimentation and Adaptation Programme have been established to guide stakeholders in the adoption of such services in a safe environment.⁽⁵⁾ However, the most common barrier in both developing and developed countries remains that of an organisation culture that is unaccustomed to telemedicine service.⁽¹⁾ As illustrated above, in dire situations such as a public health emergency, this barrier can be overcome to facilitate continuity of care. Key factors to the successful and rapid implementation of TVC within our services have been the well-coordinated efforts from the entire department and the willingness to progress in a different direction even in such times of uncertainty. Telemedicine in our department is at its infancy and the process will be continually incorporated as part of our standard care. This is a journey that will redefine the future of the healthcare profession in Singapore.

Yours sincerely,

Lin Feng Hong¹, Tze-Ern Chua¹, Liow Ping Delphine Koh¹, Flora Su Hui Yong¹, Helen Yu Chen¹

¹Department of Psychological Medicine, KK Women's and Children's Hospital, Singapore.

hong.lin.feng@singhealth.com.sg

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