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THE **TeleBehavioral Health Summit**  
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Welcome!

**“Hybrid Care – The New Normal For Psychiatry results in improved provider wellbeing”**

**Peter Yellowlees MD**



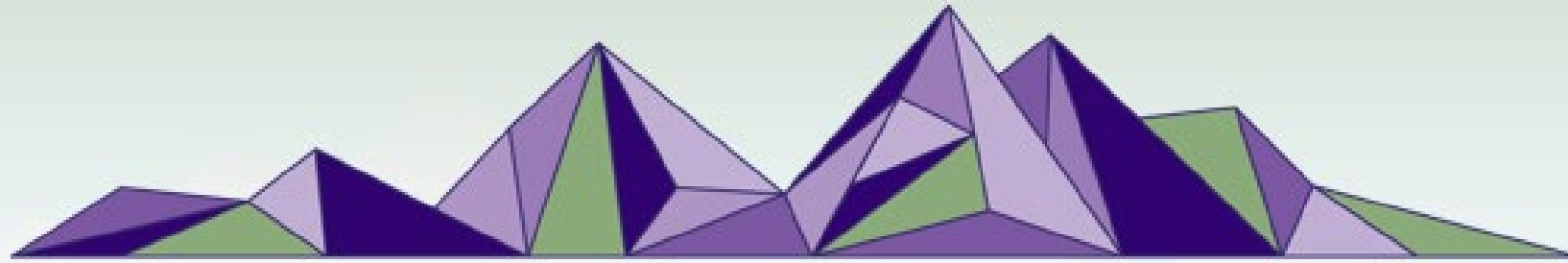
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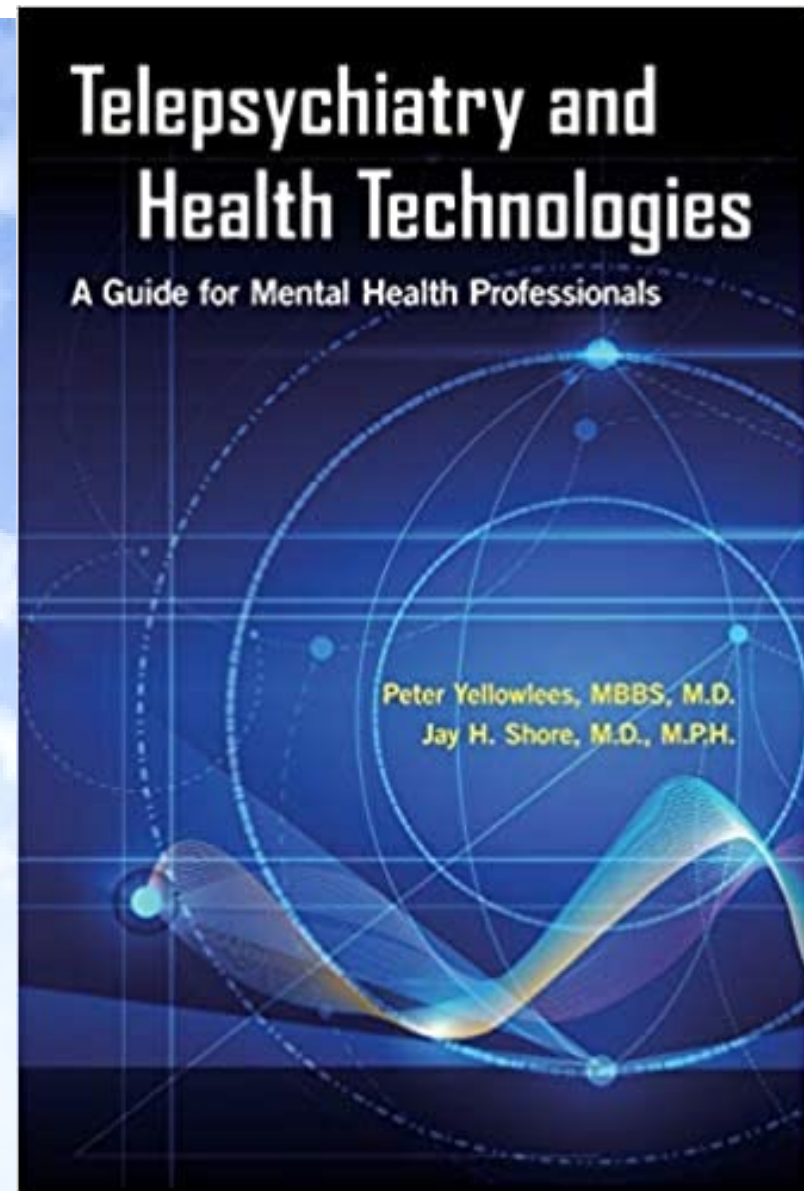
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**“Hybrid Care – The New Normal For  
Psychiatry results in improved provider  
wellbeing”**

**Peter Yellowlees MD**

# Disclosures...

CEO, AsyncHealth Inc.



# Learning Objectives

Understand telepsychiatry technologies and hybrid models used in mental health.

Be aware of evidence supporting Hybrid and Asynchronous care from the Covid-19 era, and the move of patient care to the home

Understand that the use of technologies with patients is good for clinician wellbeing.



# Impact of COVID-19 on Mental Health Care Practitioners

Peter Yellowlees, MBBS, MD

## KEYWORDS

• Psychiatrist • Telepsychiatry • Hybrid practice • Burnout • Workforce • Well-being

## KEY POINTS

- Many mental health practitioners, including psychiatrists, have suffered multiple social and mental health impacts from COVID-19
- A range of actions are described that health care organizations and individuals can take to mitigate these impacts
- There will likely be substantial positive short- and long-term outcomes for psychiatrists individually and as a profession post-COVID-19

*Nothing is permanent in this wicked world – not even our troubles*  
— Charlie Chaplin

Psychiatr Clin North Am. 2022 Mar; 45(1): 109–121.



# Covid-19: Mental Health Impacts on clinicians

- Grief and Loss – deaths, relationships, important life events
- Moral Injury and burnout
- Depression/Anxiety
- Substance use
- Trauma – domestic violence, gambling, excess online activities, abortions, suicides
- Social division, extremism and polarization – especially via social media
- Isolation
- Impact of long-covid.....and “the great resignation”

## Covid-19: Positive Impacts

- Hybrid Care – home visits
- More flexibility – work from home and changed work hours – reduced shortages
- Focus on physician leadership and wellbeing
- Reduced and shorter meetings – “zoom fatigue”
- Specific groups – IOP, Group Rx, Cross-language, Teaching/Supervision, Asynchronous approaches
- Virtual care is good for the climate



# Telepsychiatry Models

Real time (including trainees/families as third link)

- Video or Phone
  - Direct to patients in clinic/home/community
  - Collaborative care in clinic with other providers

Asynchronous – delayed time

- Recorded asynchronous interviews – English and Spanish – in primary care clinics, patient homes, and nursing homes
- Self-recorded interviews
- E-consults with EMR
- Text/secure messaging

Remote Patient Monitoring

- Active and passive data collection – apps and wearables

Hybrid Care – In-person care + any of the above

# Telepsychiatry is an evidence-based practice – prior to Covid-19



## Best Practices in Videoconferencing-Based Telemental Health (April 2018)



The American Psychiatric Association

and

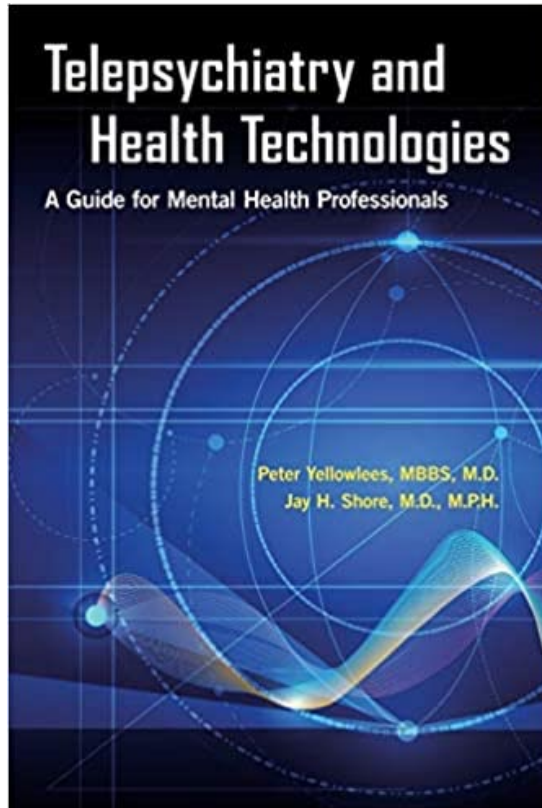


The American Telemedicine Association

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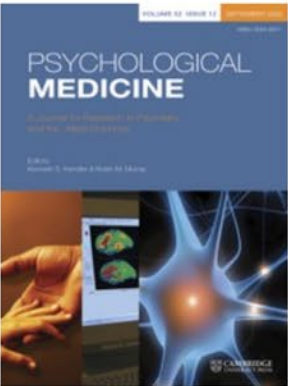


- **Business Planning**
- **Models of Care**
- **Evidence Base**
- **Clinical Communication Skills**
- **Asynchronous Telepsychiatry**
- **Hybrid Care**

# **Covid impact on telehealth a forced experiment**

- **Expanded access to care – underserved and racially diverse communities – telephony**
- **40% of all Medicare (elderly) patients received care**
- **Reduced costs – patients and providers**
- **Driven innovation and new models of care**
- **Improved care for mental health/addiction epidemic – 25m psych consults per year**
- **Efficient access to care in rural areas**
- **Convenience and satisfaction - all**

# International Collaboration



**Psychological Medicine**

## Article contents

- Abstract
- Background
- Methods
- Results
- Conclusions
- Introduction
- Methods
- Results
- Discussion

## Changes in telepsychiatry regulations during the COVID-19 pandemic: 17 countries and regions' approaches to an evolving healthcare landscape

Published online by Cambridge University Press: 27 November 2020

Shotaro Kinoshita , Kelley Cortright, Allison Crawford, Yuya Mizuno, Kazunari Yoshida, Donald Hilty, Daniel Guinart, John Torous, Christoph U. Correll, David J. Castle, **Deyvis Rocha**, Yuan Yang, Yu-tao Xiang, Pernille Kølbæk, David Dines, Mohammad ElShami, Prakarjani, Roy Kallivayalil, Marco Solmi, Angela Favaro, Nicola Veronese, Soraya Seedat, Sangho Shin, Gonzalo Salazar de Pablo, Chun-Hung Chang, Kuan-Pin Su, Hakan Karas, John M. Kane, **Peter Yellowlees** and Taishiro Kishimoto 

Show author details 

**Article** Figures Supplementary materials Metrics

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### Abstract

### Background

During the COVID-19 pandemic, the use of telemedicine as a way to reduce COVID-19 infections was noted and consequently deregulated. However, the degree of telemedicine regulation varies from country to country, which may alter the widespread use of telemedicine.



# Rapid change

Rapid Conversion of an Outpatient Psychiatric Clinic to a 100% Virtual Telepsychiatry Clinic in Response to COVID-19

Technology in Mental Health Full Access

Peter Yellowlees, M.B.B.S., M.D., Keisuke Nakagawa, M.D., Murat Pakyurek, M.D., Angel Hanson, Jerry Elder, Helen C. Kales, M.D.

Published Online: 28 May 2020 | <https://doi.org/10.1176/appi.ps.202000230>

**Abstract**

In anticipation of a surge of COVID-19 cases in Northern California, the outpatient psychiatric clinic at UC Davis Health, in which 98% of visits initially occurred in person, was converted to a telepsychiatry clinic, with all visits changed to virtual appointments within 3 business days. The clinic had 73 virtual appointments on its first day after full conversion. This column describes the process, challenges, and lessons learned from this rapid conversion. Patients were generally grateful, providers learned rapidly how to work from home, and the clinic remained financially viable with no immediate losses.

**HIGHLIGHTS**

- The outpatient psychiatry clinic at UC Davis Health was converted to a completely virtual telepsychiatry clinic in 3 business days in anticipation of a surge of patients with COVID-19.
- Clinic staff called 850 patients to notify them that their appointment had been changed to a telepsychiatry consultation and prepared

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**Psychiatric Services**  
Volume 71  
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**Metrics** 26

**Related Articles:**  
Psychiatric Training During a Global Pandemic: How COVID-19 Has Affected Clinical Care, Teaching, and Trainee Well-Being

PDF Help

# Telephony gives better access

## Rapid Telepsychiatry Implementation During COVID-19: Increased Attendance at the Largest Health System in the United States

Lynsey Avalone [✉](#), L.M.S.W., M.P.H., Charles Barron, M.D., Carla King, M.P.H., Rebecca Linn-Walton, Ph.D., L.C.S.W., Jen Lau, M.P.A., Hunter L. McQuiston, M.D., Maryann Popiel, M.D., C.P.E., Meera Balasubramaniam, M.D., Richard Freeman, Omar Fattal, M.D., M.P.H.

**Published Online:** 18 Mar 2021 | <https://doi.org/10.1176/appi.ps.202000574>

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### Abstract

#### Objective:

This study aimed to examine differences in completion rates between telepsychiatry and in-person visits during the COVID-19 pandemic and a prior reference period.

#### Methods:

The authors used electronic medical record data along with chi-squared or t tests to compare patients' demographic characteristics. Generalized estimating equations for estimating the odds of primary and secondary outcomes were used, controlling for demographic characteristics.

#### Results:

During COVID-19, the odds of completing a telepsychiatry visit (N=26,715) were 6.68 times the odds of completing an in-person visit (N=11,094). The odds of completing a telepsychiatry visit during COVID-19 were 3.00 times the odds of completing an in-person visit during the pre-COVID-19 reference period (N=40,318).

#### Conclusions:

In this cross-sectional study, outpatient adult mental health clinic telepsychiatry appointments, largely by telephone, were strongly associated with a higher rate of visit completion compared with in-person visits during and prior to the COVID-19 pandemic. Regulators should consider permanently enabling reimbursement for telephone-only telepsychiatry visits.



# 2020



## Mental Health By the Numbers

### RECOGNIZING THE IMPACT

2020 was a year of challenges, marked by loss and the uncertainty of the COVID-19 pandemic.

We must recognize the significant impact of the pandemic on our mental health – and the importance of increasing access to timely and effective care for those who need it.

#### Among U.S. ADULTS:



**1 in 5** experienced a mental illness

**1 in 20**

experienced a serious mental illness

**1 in 15**

experienced both a substance use disorder and mental illness

**12+ MILLION**

had serious thoughts of suicide

**1 in 5**

report that the pandemic had a significant negative impact on their mental health

**45%**

of those with mental illness

**55%**

of those with serious mental illness

#### Among U.S. ADULTS who received mental health services:

**17.7 MILLION**

experienced delays or cancellations in appointments

**7.3 MILLION**

experienced delays in getting prescriptions

**4.9 MILLION**

were unable to access needed care



Many struggled to get necessary mental health care, with telehealth proving an essential option.

**26.3 MILLION**

adults received virtual mental health services in the past year

**34%**

of those with mental illness

**50%**

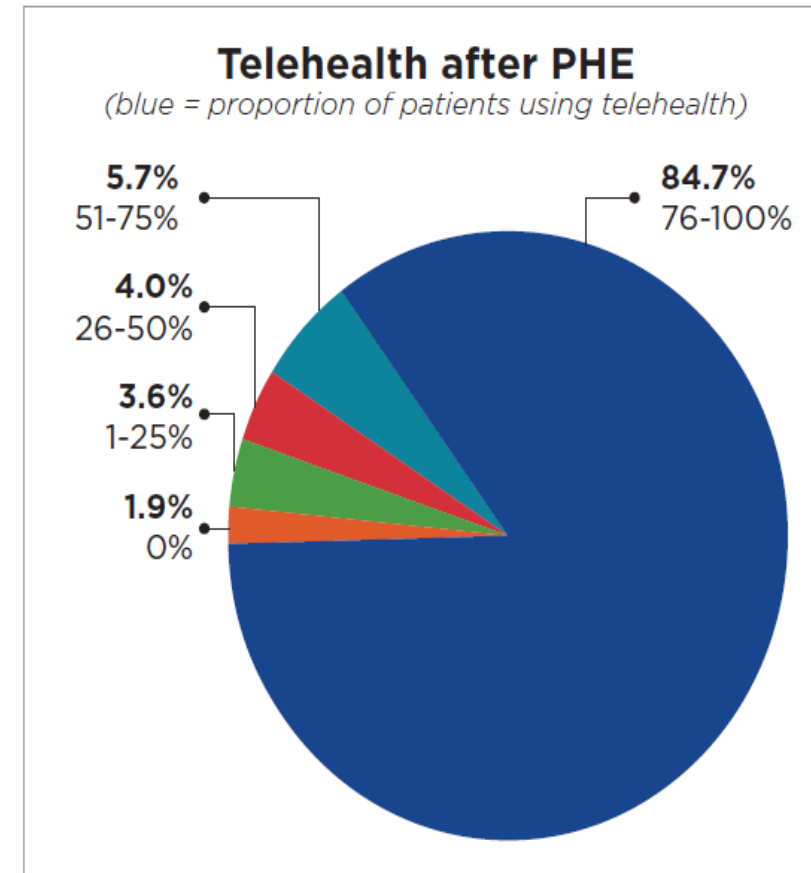
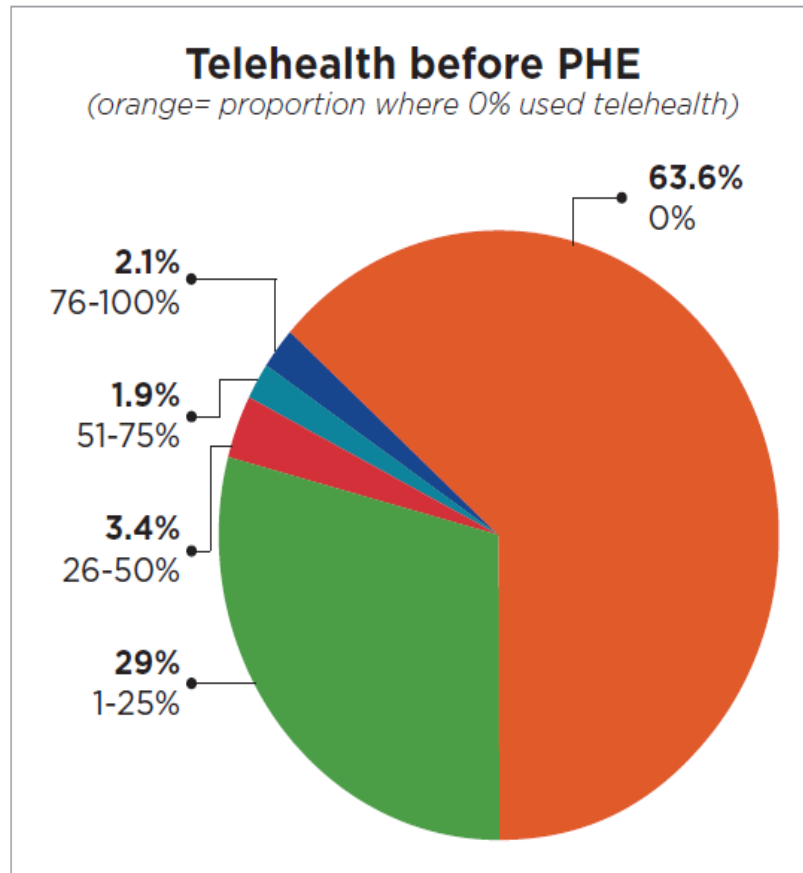
of those with serious mental illness



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# Psychiatrists changed behavior



APA data – July 2020

# High Diagnostic Concordance



Original Investigation | Health Informatics

## Assessment of Clinician Diagnostic Concordance With Video Telemedicine in the Integrated Multispecialty Practice at Mayo Clinic During the Beginning of COVID-19 Pandemic From March to June 2020

Bart M. Demaerschalk, MD, MSc; Andrew Pines, MD; Richard Butterfield, BS, MA; Jack M. Haglin, MD; Tufia C. Haddad, MD; James Yiannias, MD; Christopher E. Colby, MD; Sarvam P. TerKonda, MD; Steve R. Ommen, MD; Matthew S. Bushman, BSc; Troy G. Lokken, MBA; Rebecca N. Blegen, MBA; Mckenzie D. Hoff, MSW; Jordan D. Coffey, MBA, MHA, MA; Greg S. Anthony, MBA, MSPH; Nan Zhang, MSc; for the Diagnostic Accuracy of Telemedicine Utilized at Mayo Clinic Alix School of Medicine Study Group Investigators

### Abstract

**IMPORTANCE** There was a shift in patient volume from in-person to video telemedicine visits during the COVID-19 pandemic.

**OBJECTIVE** To determine the concordance of provisional diagnoses established at a video telemedicine visit with diagnoses established at an in-person visit for patients presenting with a new clinical problem.

**DESIGN, SETTING, AND PARTICIPANTS** This is a diagnostic study of patients who underwent a video telemedicine consultation followed by an in-person outpatient visit for the same clinical problem in the same specialty within a 90-day window. The provisional diagnosis made during the video telemedicine visit was compared with the reference standard diagnosis by 2 blinded, independent medical reviewers. A multivariate logistic regression model was used to determine factors significantly related to diagnostic concordance. The study was conducted at a large academic integrated multispecialty health care institution (Mayo Clinic locations in Rochester, Minnesota; Scottsdale and Phoenix, Arizona; and Jacksonville, Florida; and Mayo Clinic Health System locations in Iowa, Wisconsin, and Minnesota) between March 24 and June 24, 2020. Participants included Mayo Clinic patients residing in the US without age restriction. Data analysis was performed from December 2020 to June 2021.

**EXPOSURES** New clinical problem assessed via video telemedicine visit to home using Zoom Care Anyplace integrated into Epic.

### Key Points

**Question** How concordant to an in-person diagnosis are provisional diagnoses established at a video telemedicine visit for patients presenting with a new clinical problem?

**Findings** In this diagnostic study of 2393 patients who underwent a video telemedicine consultation followed by an in-person outpatient visit for the same clinical problem in the same specialty within a 90-day window, the provisional diagnosis established over video telemedicine visit matched the in-person reference standard diagnosis in 86.9% of cases.

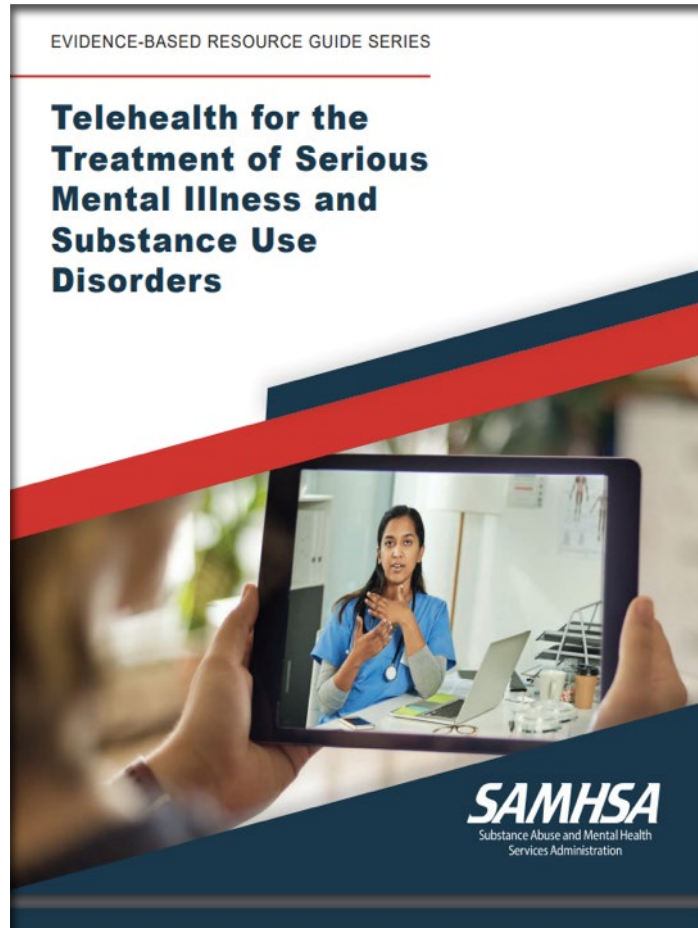
**Meaning** These findings suggest that video telemedicine visits yield a high degree of diagnostic concordance to in-person visits for most new clinical concerns.

# Multiple Approaches for therapy

Company	Accepts Insurance	Weekly Price	Rating (1-5)	Therapy Modalities	Therapists on Staff
<b>Best Overall</b> <input type="text"/>	Yes	\$65-\$99	4.5	Text, Audio, and Video	5,000
<b>Best Live Chat Sessions</b> <input type="text"/>	No	\$90-\$120	4.3	Live Chat, Messages, and Video	12,000
<b>Best for Couples</b> <input type="text"/>	No	\$90-\$120	4.1	Live Chat, Messages, and Video	1,500
<b>Best for Teens</b> <input type="text"/>	No	\$90-\$120	4.1	Live Chat, Messages, Phone, and Video	1,250
<b>Best for LGBTQ</b> <input type="text"/>	No	\$90-\$120	4.1	Live Chat, Messages, Phone, and Video	3,470
<b>Best for a Quick Consultation</b> <input type="text"/>	Yes	\$99-\$269	3.9	Video, Phone	350+
<b>Best for Peer Support</b> <input type="text"/>	No	Free	3.9	Chat	115



# SAMHSA Report (2021) on Serious mental illness and addictions and Telehealth



- Telehealth is effective across the continuum of care for SMI and SUD, including screening and assessment, treatments, including pharmacotherapy, medication management, and behavioral therapies, case management, recovery supports, and crisis services.
- Strong focus on hybrid care – in-person AND online

# Satisfaction with telehealth during Covid-19

Gotthardt, Yellowlees et al 2022

**UC Davis 14,000 video v 74,000 in-person 2021.**

**CAPHS (Consumer Assessment of Healthcare Providers and Services)**

- **patients' satisfaction with their care provider;**
- **whether they felt included in discussions,**
- **would recommend their physician,**
- **received clear explanations, and**
- **that their concerns were heard.**

**Overall results - all equal and high, with females scoring lower and the elderly higher.**

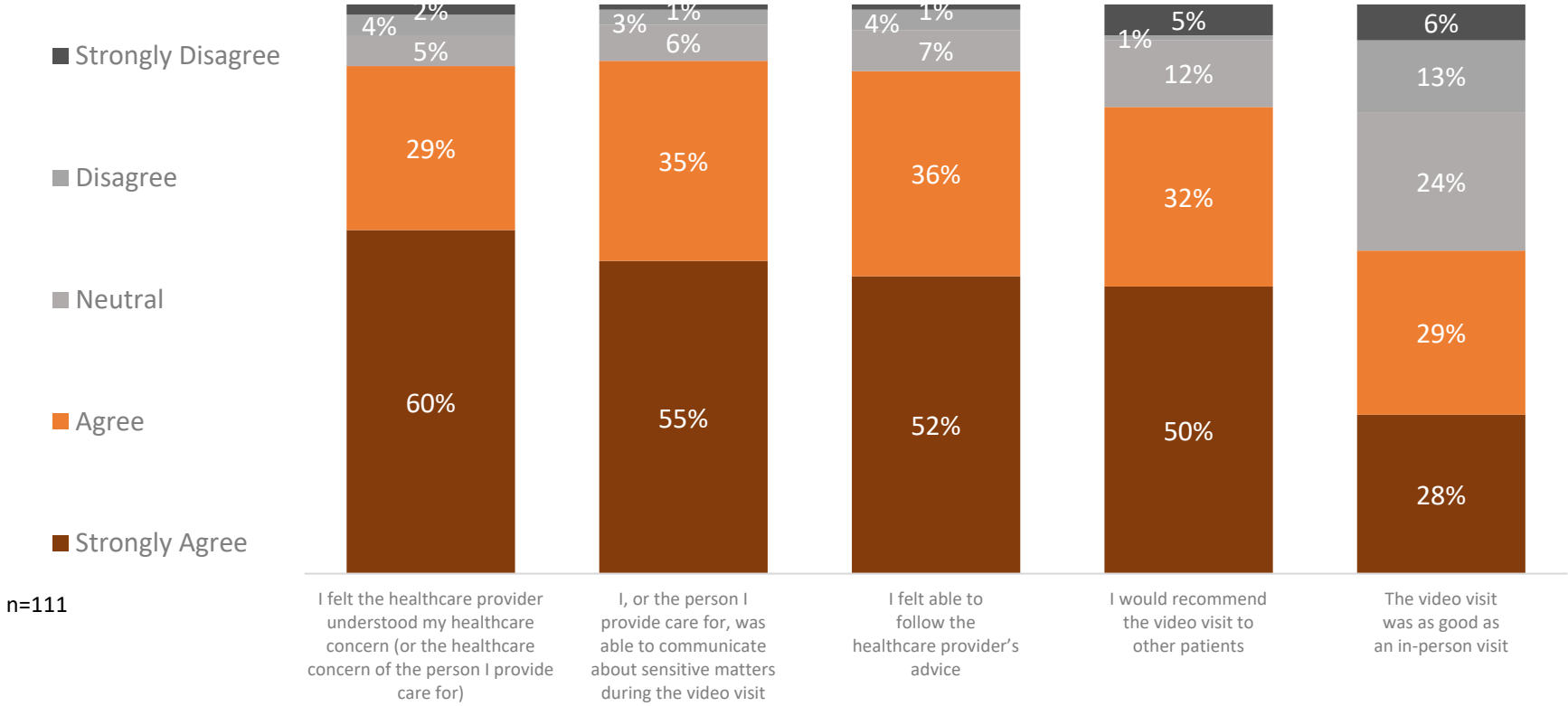
**African American, younger, female and family practice attendees tended to give higher in-person scores.**



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# Mental Health Video Visits at UCD

**90% of respondents agree or strongly agree that they, or the person they provide care for, was able to communicate about sensitive matters during the video visit.**



Q3) How much do you agree or disagree with the following statements about the mental health or stress-related video visit with UC Davis Health?



## Environmental Impact of Ambulatory Telehealth Use By A Statewide University Health System During COVID-19

Sharma, Yellowlees, Gotthardt, Luce, Avdalovic, Marcin. 2022

University Site	Number of ambulatory telehealth visits (N=3,043,369)	Percentage of ambulatory telehealth visits
University of California Davis	300,080	9.86
University of California Irvine	292,509	9.61
University of California Los Angeles	914,038	30.03
University of California San Diego	554,023	18.20
University of California San Francisco	982,719	32.29

<b>Miles, time, and cost saved</b>	
Total round-trip (in miles)	53,664,391
Average round-trip miles per visit (in miles)	17.6
Total travel time (in hours)	1,788,813
Total travel time (in days)	74,534
Average travel time per visit (in minutes)	35.3
Total cost of travel (in dollars)	33,540,244.4
Average cost of travel per visit (in dollars)	11.02
<b>Crash Related Injuries and Fatalities Avoided</b>	
Total Number of Crash Related Injuries Avoided	42.4
Total Number of Crash Related Fatalities Avoided	0.72

Sharma et al, 2022





Table 3: Total greenhouse gas emissions emitted by light-duty gasoline vehicles that was saved by use of telehealth during COVID-19 pandemic period

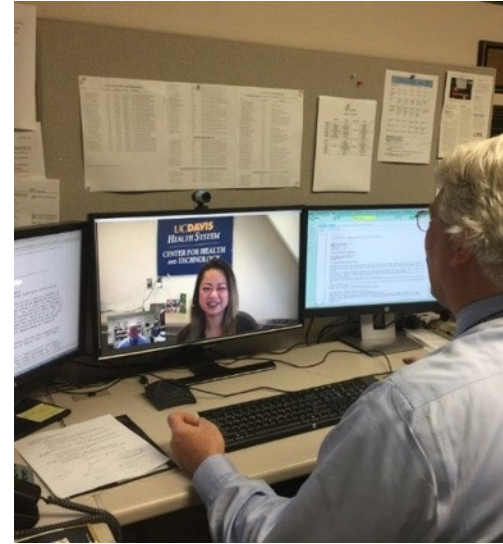
Type of Greenhouse Gas Emission	Total emission in metric tons
Carbon Dioxide	21,465.8
Total Hydrocarbons	14.1
Exhaust Carbon Monoxide	212.3
Exhaust Nitrogen Oxides	9.3
Exhaust PM 2.5	0.2
<u>Brakewear</u> PM 2.5	0.2
<u>Tirewear</u> PM 2.5	0.1

Sharma et al, 2022



# Video Visits Advantages for Providers

- **Time Savings**
- **Cost Savings**
- **Less Tiring**
- Improved **Quality** - home
- Better **Relationships** - hybrid
- Increased **Variety**
- Improved **Safety and Teamwork**
- **Geographic and Scheduling Flexibility**



**Leads to Increased Independence, Autonomy, Work-Life Integration and Well-being**

# Should telehealth be continued at same rate post Covid?

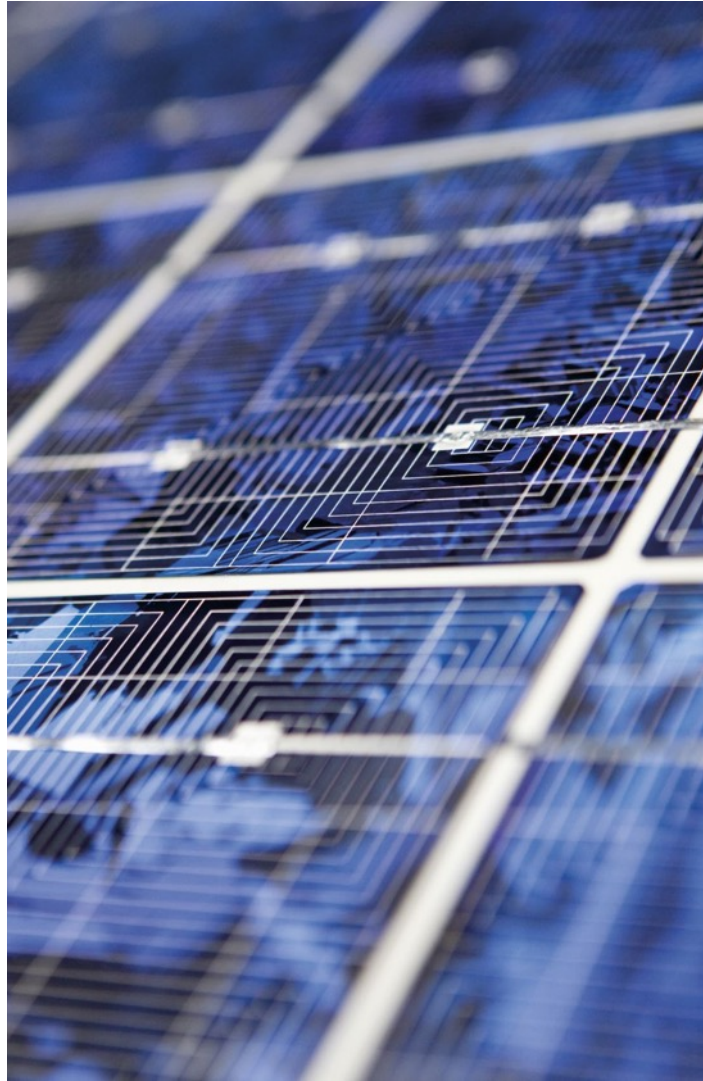
- **Continued high use at somewhat reduced levels, except for mental health**
- **Concern about possible billing fraud, and over-prescribing of controlled substances**
- **Are telehealth visits replacing in-person visits (similar costs) or adding to them (extra costs – estimate \$2B per year)**

## **Dec 22 Omnibus Package**

- 2 year extension of medicare telehealth provisions in place for PHE
- 2 year delay in mental health telehealth in-person requirement
- 2 year extension of telehealth acute hospital at home program
- No change to Ryan-Haight Act, although did require DEA to create regulations for telemedicine controlled substance prescribing

## **PHE ends May 11th**

- In-person visits required for providers writing prescriptions for controlled substances – can work with PCP with DEA license
- Cross state licensing – now variable and depends on individual state policies. National policies for VA and IHS.
- “HIPAA compliant” technologies necessary
- Expanded telehealth for medicare remains until Dec 2024. Most private insurers still cover telehealth (includes care at home)
- States have authority to have Medicaid cover telehealth – most likely to make this permanent.



# What do patients want?

Ease + Convenience.....+ Trust

To experience care as a journey.....Before, during and after (Digital and in-person)

Choice

# Telepsychiatry Future Directions

**A. Hybrid Care**

**B. Care in the home**

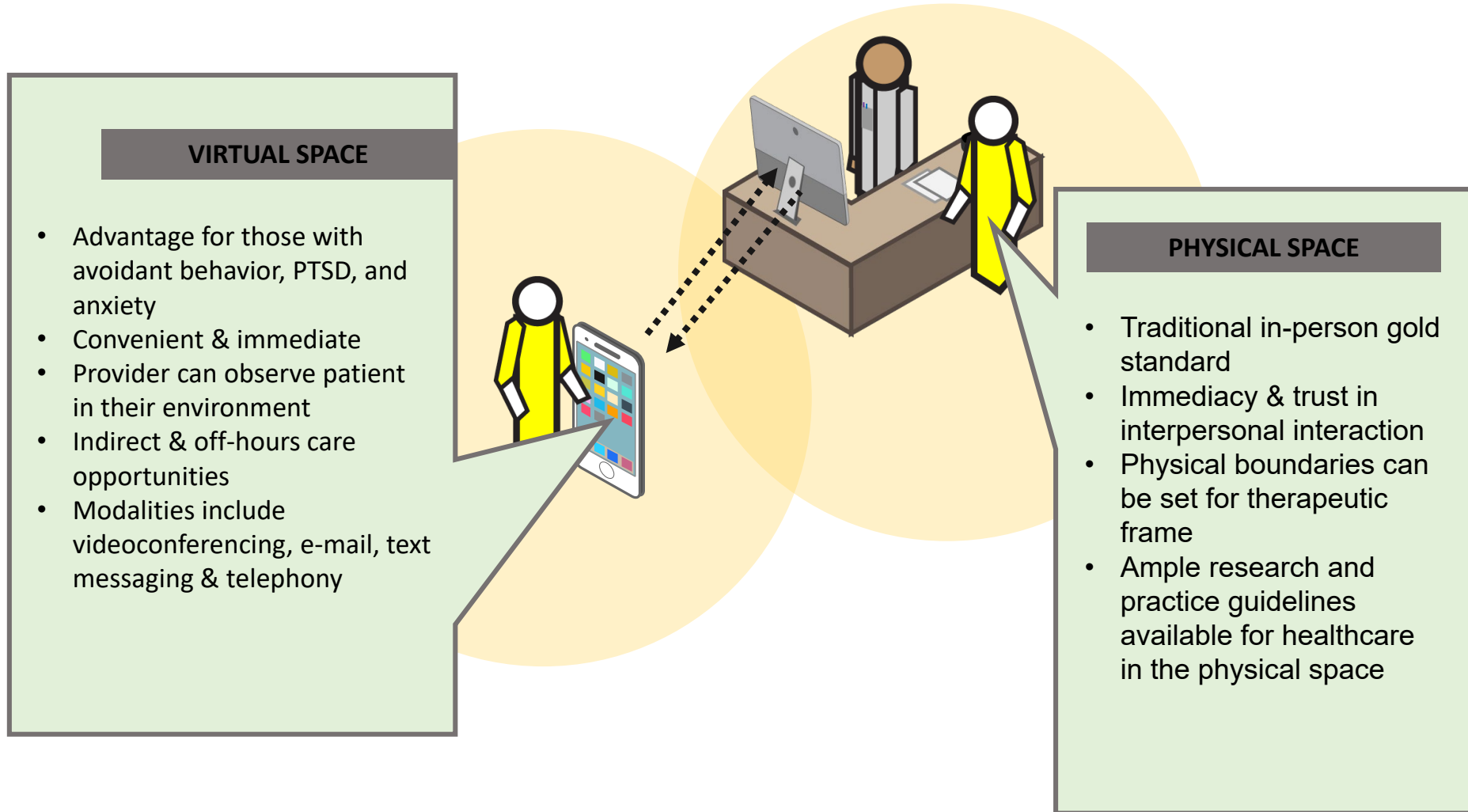
**C. Asynchronous care**

**D. Apps**

# Hybrid Care – a multimodal relationship

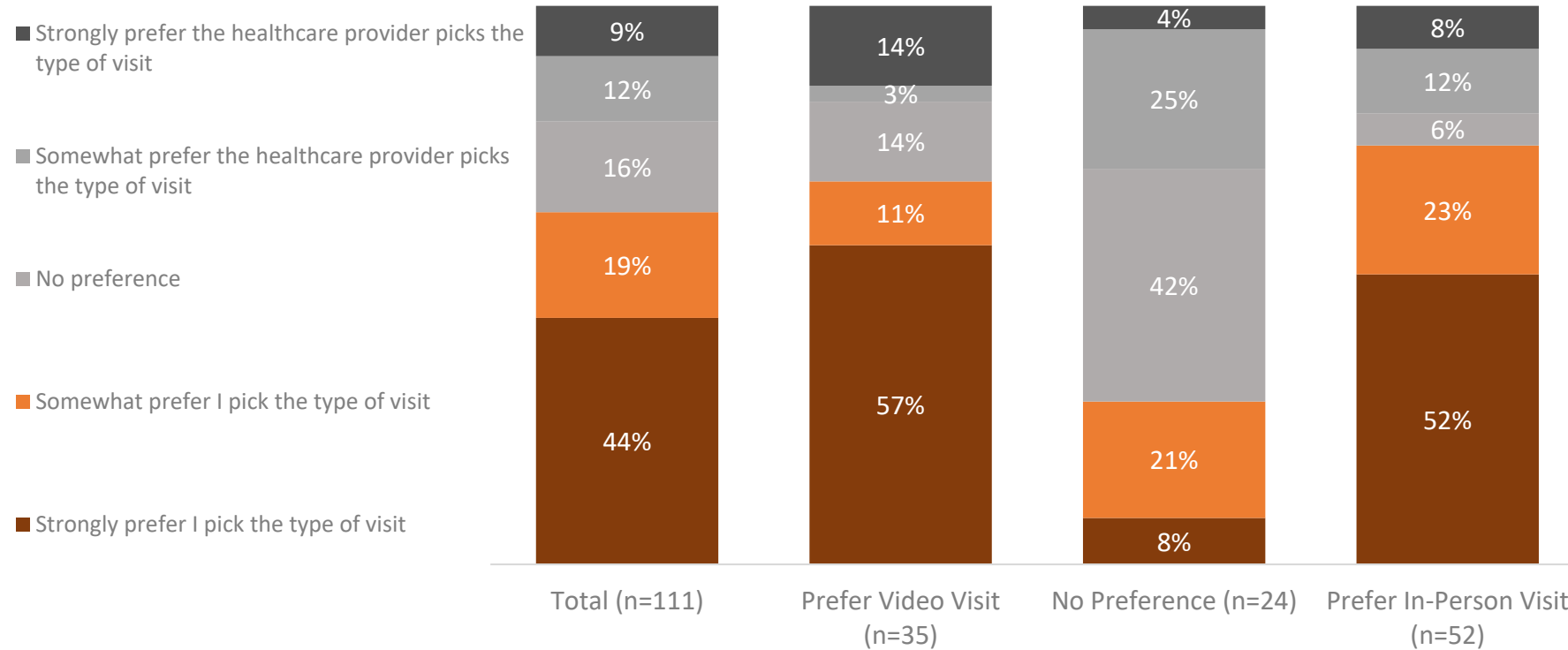
- In-person AND any forms of online care
- Video, audio, text, messaging, email, letters
- A negotiated choice – for providers and patients
- Depending on clinical situation, preference, time and convenience
- May aim to start or finish in-person or online, or be mixed throughout
- More likely in-person focus: new patients, urgent, lack of trust
- More likely online focus: known patients, non-urgent, trauma

# Hybrid care





# 63% of respondents prefer picking the type of visit.



Q6) When scheduling an appointment for mental health or stress-related concerns, how would you prefer the type of visit (video or in-person) is selected?

# Virtual Home Visits

## Drivers

- Patient/provider satisfaction and convenience
- Generational Changes
- Mobile devices
- Covid-19
- Hybrid care - best of both online and in-person care
- Available guidelines (ATA/APA)

# Mobile Healthcare

- 16 b smart/feature phones in use – 7.8 b users.
- 90% internet access worldwide (China 99%)
- USA 97%; Brazil 93% households with mobile
- Top global apps; Instagram, Facebook, TikTok
- 26m jobs mobile industry
- Average US user checks 96x per day

# Advantages of virtual home visits

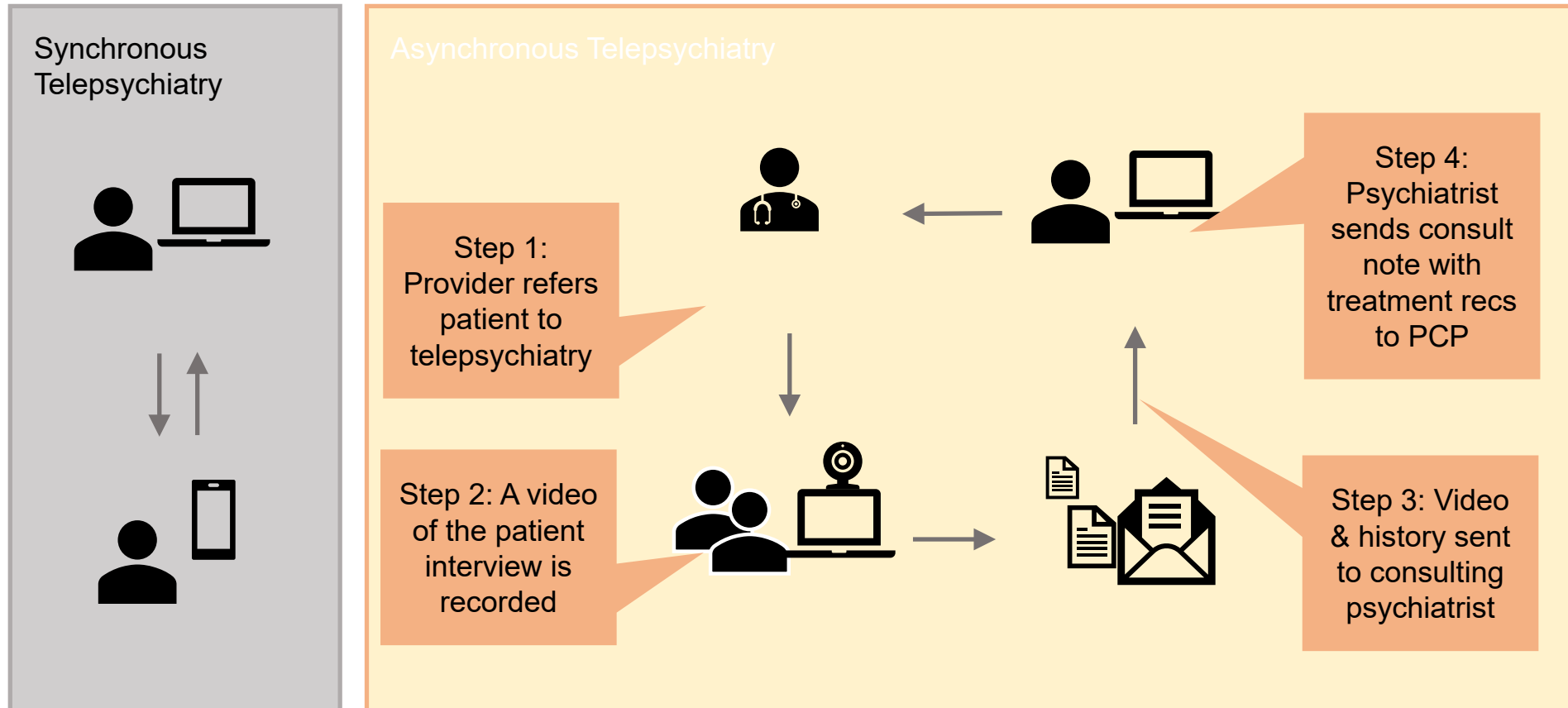
- More equal relationships – less power differential – more intimate
- More convenient and safe – saves time and cost – less stigma and fear
- More teamwork – other providers, and more variety
- More information – home setting – an extension of MSE – homes are a reflection of who we are
- More people – family/carers/supporters (privacy awareness)
- More insight – pets/hobbies/gardens
- Specific findings – alcohol, food, cleanliness
- Improved provider well-being, and patient satisfaction

# Disadvantages of virtual home visits

- Anxiety/phobia about tech
- Phone v video v text/messaging
- Zoom fatigue
- Loss of “in-person feel”
- Harder physical exams
- Privacy (car as new therapy room)

# C. Asynchronous Telepsychiatry

## Use of Synchronous (STP) vs Asynchronous Telepsychiatry (ATP)



# Review of Use of Asynchronous Technologies Incorporated in Mental Health Care

[Steven Chan](#) , [Luming Li](#), [John Torous](#), [David Gratzler](#) & [Peter M. Yellowlees](#)

[Current Psychiatry Reports](#) **20**, Article number: 85 (2018) | [Cite this article](#)

**1977** Accesses | **36** Citations | **20** Altmetric | [Metrics](#)

## Abstract

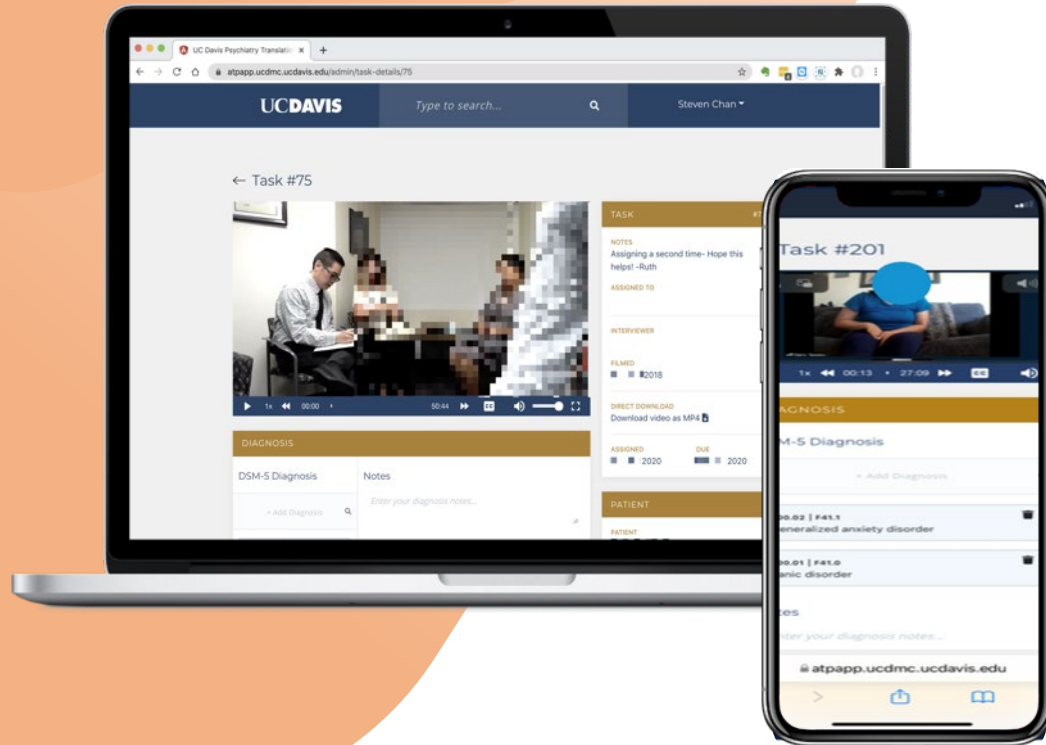
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### Purpose of Review

Mental health clinicians should understand how technologies augment, enhance, and provide alternate means for the delivery of mental healthcare. These technologies can be used *asynchronously*, in which the patient and the clinician need not be communicating at the same time. This contrasts with *synchronous technologies*, in which patient and clinician must communicate at the same time.

### Recent Findings

The review is based on research literature and the authors' clinical and healthcare administration experiences. Asynchronous technologies can exist between a single clinician and a single patient, such as patient portal e-mail and messaging, in-app messaging, asynchronous telepsychiatry via store-and-forward video, and specialty patient-to-provider



**First-generation asynchronous app a tested and clinically evaluated at UC Davis.**

**Automated transcription and translation.**

**15 publications**

**Commercialization in process.**



Original Paper

# Clinical Outcomes of Asynchronous Versus Synchronous Telepsychiatry in Primary Care: Randomized Controlled Trial

Peter M Yellowlees<sup>1</sup>, MBBS, MD; Michelle Burke Parish<sup>1</sup>, MA, PhD; Alvaro D Gonzalez<sup>1</sup>, MA; Steven R Chan<sup>2,3</sup>, MBA, MD; Donald M Hilty<sup>4</sup>, MD; Byung-Kwang Yoo<sup>5</sup>, PhD, MD; J Paul Leigh<sup>5</sup>, PhD; Robert M McCarron<sup>6</sup>, DO; Lorin M Scher<sup>1</sup>, MD; Andres F Sciolla<sup>1</sup>, MD; Jay Shore<sup>7</sup>, MD; Glen Xiong<sup>1</sup>, MD; Katherine M Soltero<sup>8</sup>, LCSW; Alice Fisher<sup>5</sup>, BA; Jeffrey R Fine<sup>5</sup>, MPH; Jennifer Bannister<sup>1</sup>, EdM; Ana-Maria Iosif<sup>5</sup>, PhD







## A Pilot Randomized Trial of Asynchronous and Synchronous Telepsychiatry in Skilled Nursing Facilities

[Glen L. Xiong, MD](#) • [Ana-Maria Iosif, PhD](#) • [Haley T. Godwin, BS](#) • [Murtaza Khan](#) • [Michelle B. Parish, MA](#) • [Peter Yellowlees, MD](#) • [Debra Kahn, MD](#) • [Show less](#)

DOI: <https://doi.org/10.1016/j.jamda.2018.02.007> •



# Primary Care Physician Adherence to Telepsychiatry Recommendations: Intermediate Outcomes from a Randomized Clinical Trial

Monica K. Lieng  , Magi S. Aurora, Young Kang, Joseph M. Kim, James P. Marciniak , Steven R. Chan, Jamie L. Mouzoon , Daniel J. Tancredi, Michelle Parish , Alvaro D. Gonzalez , Lorin Scher, Glen Xiong, Robert M. McCarron, and Peter Yellowlees

**Published Online:** 7 Jun 2022 | <https://doi.org/10.1089/tmj.2021.0389>

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## Abstract

**Objective:** To compare clinical recommendations given by psychiatrists and the adherence to these recommendations by primary care physicians (PCP) following consultations conducted by asynchronous telepsychiatry (ATP) and synchronous telepsychiatry (STP).

**Materials and Methods:** ATP and STP consultations were compared using intermediate data from a randomized clinical trial with adult participant enrollment between April 2014 and December 2017. In both study arms, PCPs received written recommendations from the psychiatrist after each encounter. Independent clinicians reviewed PCP documentation to measure adherence to those recommendations in the 6 months following the baseline consultation.

# Asynchronous Telepsychiatry Interviewer Training Recommendations: A Model for Interdisciplinary, Integrated Behavioral Health Care

Michelle Burke Parish [✉](#), Alvaro Gonzalez, Donald Hilty, Steven Chan, Glen Xiong, Lorin Scher, David Liu, Andres Sciolla, Jay Shore, Robert McCarron, Debra Kahn, Ana-Maria Iosif, and Peter Yellowlees

**Published Online:** 6 Sep 2021 | <https://doi.org/10.1089/tmj.2020.0076>

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## Abstract

**Objective:** Asynchronous telepsychiatry (ATP) is an integrative model of behavioral health service delivery that is applicable in a variety of settings and populations, particularly consultation in primary care. This article outlines the development of a training model for ATP clinician skills.

**Methods:** Clinical and procedural training for ATP clinicians (n = 5) was provided by master's-level, clinical mental health providers developed by three experienced telepsychiatrists (P.Y. D.H., and J.S) and supervised by a tele-psychiatrist (PY, GX, DL) through seminar, case supervision, and case discussions. A training manual and one-on-one sessions were employed for initial training. Unstructured expert discussion and feedback sessions were conducted in the training phase of the study in year 1 and annually thereafter over the remaining 4 years of the study. The notes gathered during those sessions were synthesized into themes to gain a summary of the study telepsychiatrist training recommendations for ATP interviewers.

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📄 Preprints (earlier versions) of this paper are available at <https://preprints.jmir.org/preprint/39556>, first published May 13, 2022.



## The Use of Automated Machine Translation to Translate Figurative Language in a Clinical Setting: Analysis of a Convenience Sample of Patients Drawn From a Randomized Controlled Trial

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Metrics

- [Abstract](#)
- Introduction
- Methods
- Results
- Discussion
- References
- Abbreviations
- Copyright

### Abstract

#### Background:

Patients with limited English proficiency frequently receive substandard health care. Asynchronous telepsychiatry (ATP) has been established as a clinically valid method for psychiatric assessments. The addition of automated speech recognition (ASR) and automated machine translation (AMT) technologies to asynchronous telepsychiatry may be a viable artificial intelligence (AI)-language interpretation option.

#### Objective:

This project measures the frequency and accuracy of the translation of figurative language devices (FLDs) and patient word count per minute, in a subset of psychiatric interviews from a larger trial, as an approximation to patient speech complexity and quantity in clinical encounters that require interpretation.

# The future for hybrid Healthcare.....Retail has shown us the way...with trust.

- Shopping is now a hybrid experience
- Online retail – convenient, easy and trusted
- But still possible to buy at store

# Trusted online retail experience

**Massive choice of goods and services, with mobile buying, electronic payments and monitored delivery, and easy returns**

- 1. Changed sales workflow – focus on consumer**
- 2. Increased choice and range of services and goods**
- 3. Continuous monitoring and feedback – mainly passive data capture**

# Staying sane with technologies

Set clear boundaries with patients.

- Tell patients how and when they can contact you.
- Discourage long e-mails, messages.
- Use secure e-mail or EMR-tethered messaging systems

No more playing “phone tag.”

- Set phone appointments at specific times
- Use e-mail or messaging instead of wasting hours attempting to call someone multiple times

No writing letters or notes after hours.

- Use templates & copy-paste functions judiciously
- Write patient-requested letters during office visits
- Increase data input with voice recognition, dictation systems, or typing fast

Use mobile tech to work wherever & whenever

- Select smartphone-compatible cloud-enabled EMR, messaging, and storage systems
- Reduces costs and enables you to work remotely.

*Content based on Peter Yellowlees & Jay Shore.*

# Summary

- Growing range of technologies and models of care to use with patients with psychiatric disorders
- Hybrid care and virtual home visits moving toward the “new normal”
- Health Technology is good for provider wellbeing



# Thank You

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