“HYBRID CARE – THE NEW NORMAL FOR PSYCHIATRY RESULTS IN IMPROVED PSYCHIATRIST WELLBEING”

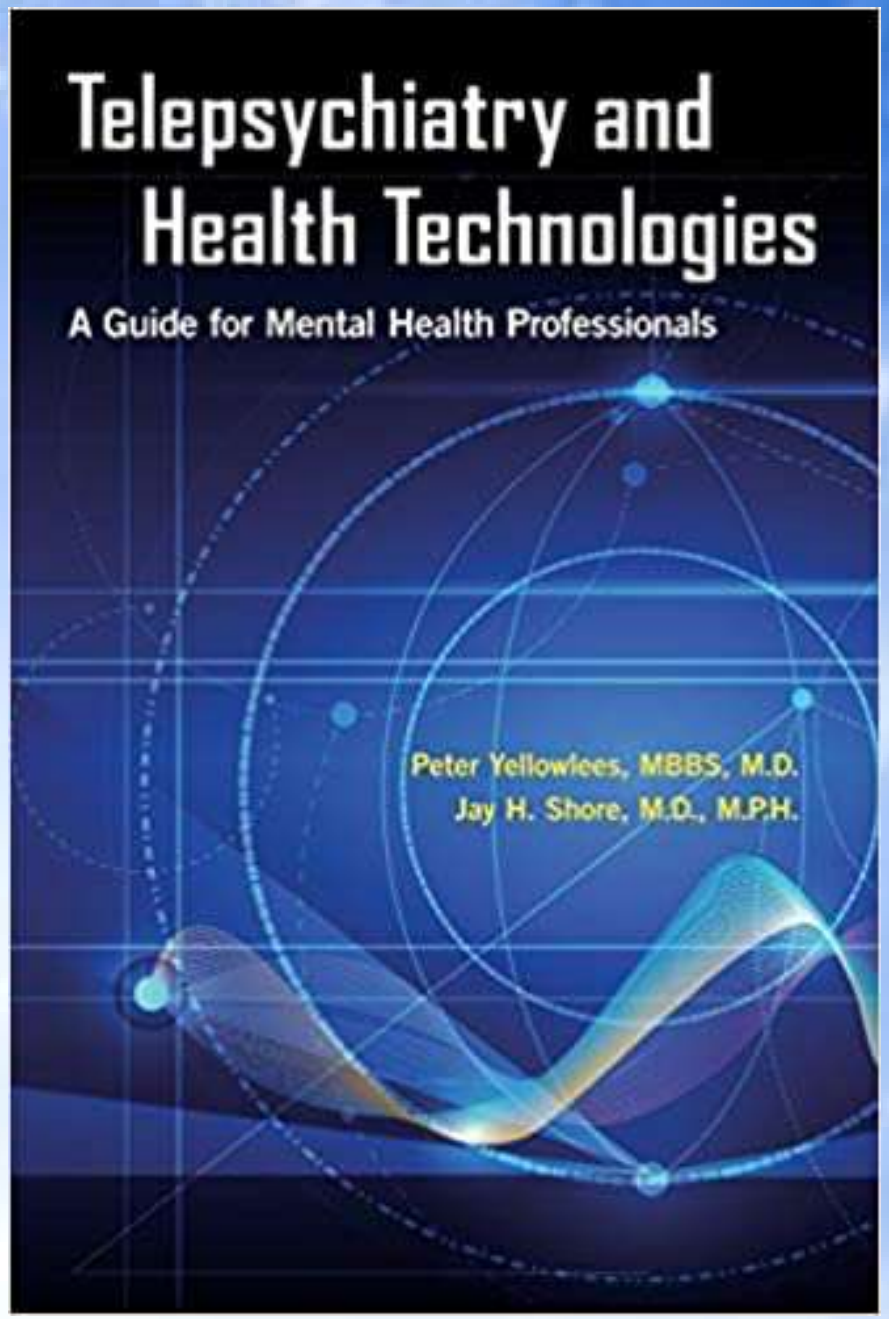
Peter Yellowlees, MBBS, MD

UC Davis

Mar 10th 2024

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 physician 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

Synchronous – 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

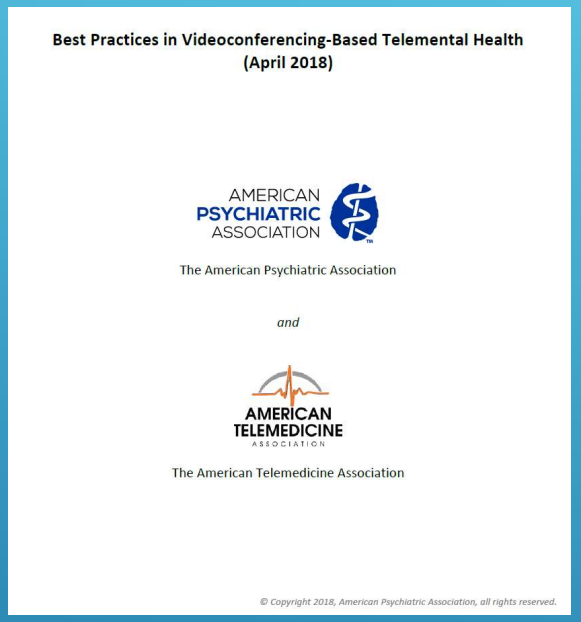
- Written text/secure messaging/letters
- E-consults with EMR/screening questionnaires
- Recorded video interviews – English and Spanish – in primary care clinics, patient homes, and nursing homes

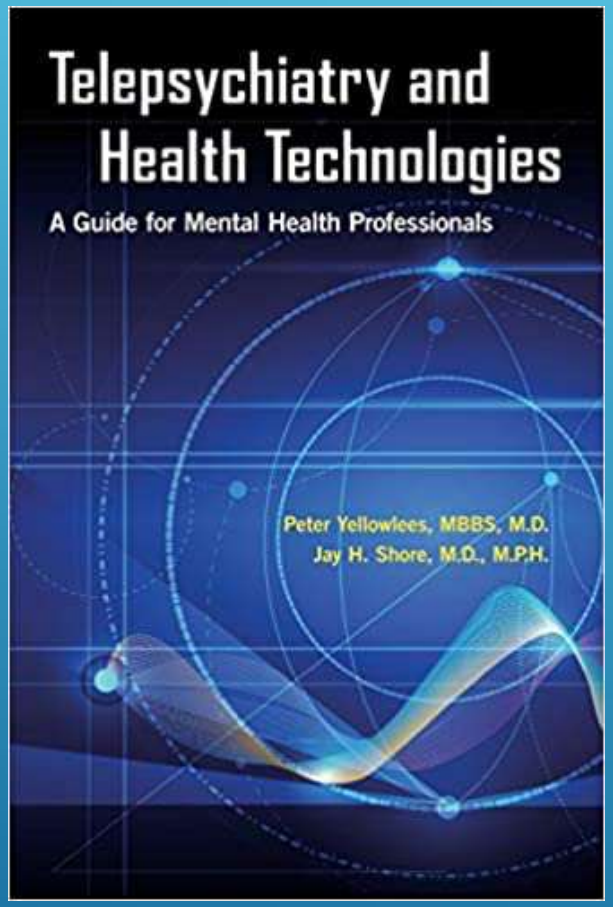
Remote Patient Monitoring

- 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



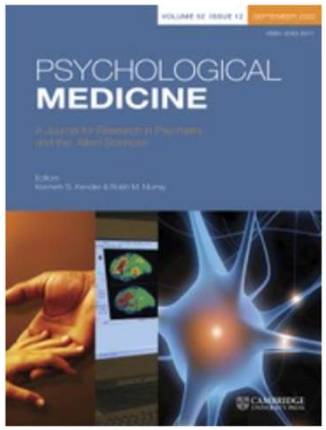


- Business Planning
- Models of Care
- Evidence Base
- Clinical Communication Skills
- Asynchronous Telepsychiatry
- Hybrid Care

COVID IMPACT ON TELEHEALTH
A FORCED EXPERIMENT

- Expanded access to care – underserved and racially diverse communities – telephony but ?? video
- 40% of all Medicare 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

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, Prakhar Jain, 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

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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 Outpat

ps.psychiatryonline.org/doi/full/10.1176/appi.ps.202000230

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Technology in Mental Health | Full Access

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

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

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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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Volume 71
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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. McQuistion, 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

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

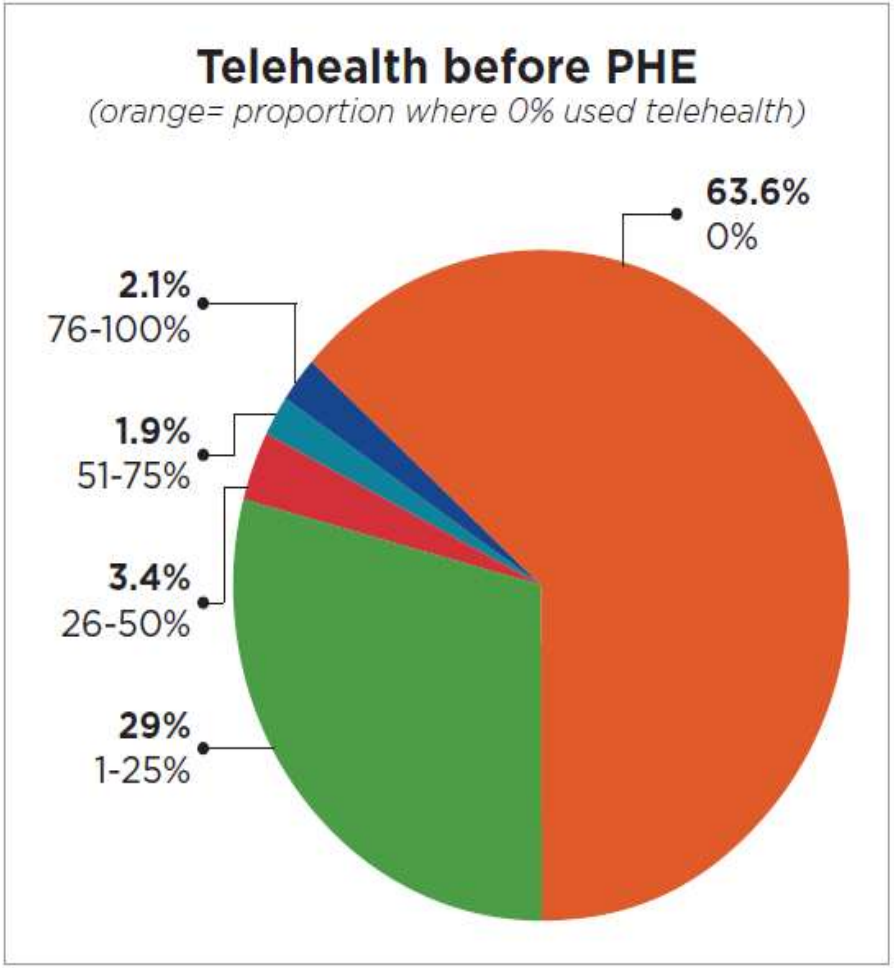
4.9 MILLION
were unable to access needed care

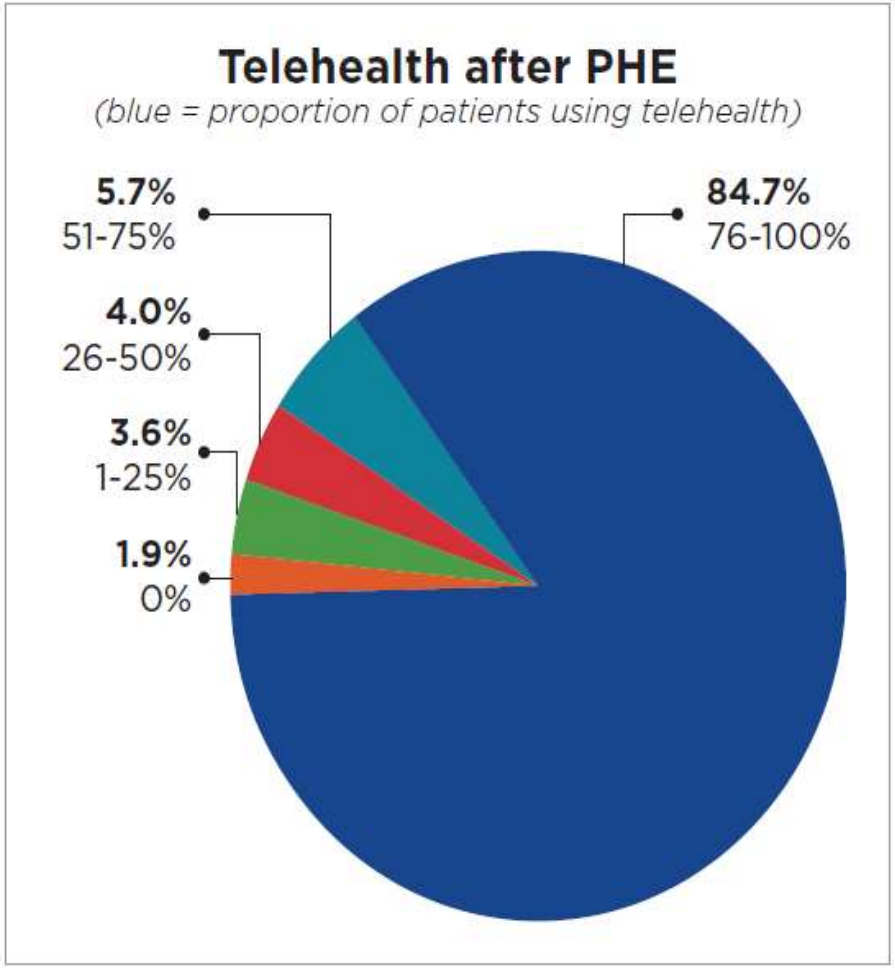
Many struggled to get necessary mental health care, with telehealth proving an essential option.

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





APA data – July 2020

High Diagnostic Concordance

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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; Mekenzie 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?

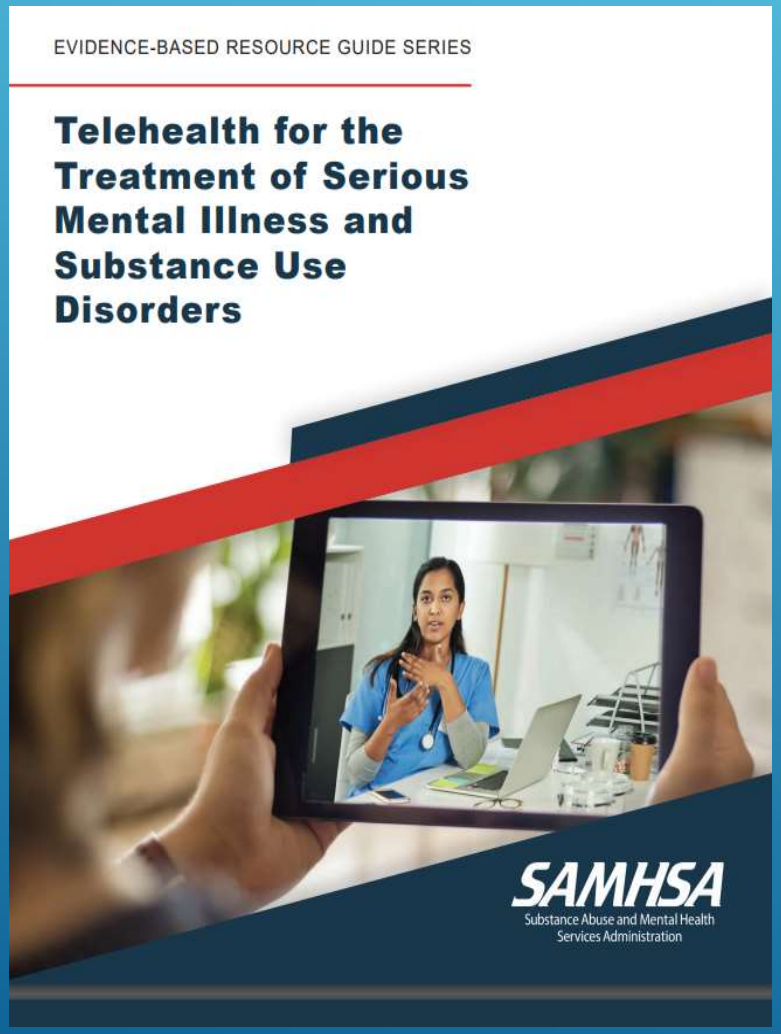
Findings In this diagnostic study of 2393 patients who underwent a video telemedicine consultation followed by an in-person outpatient visit for the same clinical problem in the same specialty within a 90-day window, the provisional diagnosis established over video telemedicine visit matched the in-person 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
Best Overall	Yes	$65–$99	4.5	Text, Audio, and Video	5,000
Best Live Chat Sessions	No	$90–$120	4.3	Live Chat, Messages, and Video	12,000
Best for Couples	No	$90–$120	4.1	Live Chat, Messages, and Video	1,500
Best for Teens	No	$90–$120	4.1	Live Chat, Messages, Phone, and Video	1,250
Best for LGBTQ	No	$90–$120	4.1	Live Chat, Messages, Phone, and Video	3,470
Best for a Quick Consultation	Yes	$99–$269	3.9	Video, Phone	350+
Best for Peer Support	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.

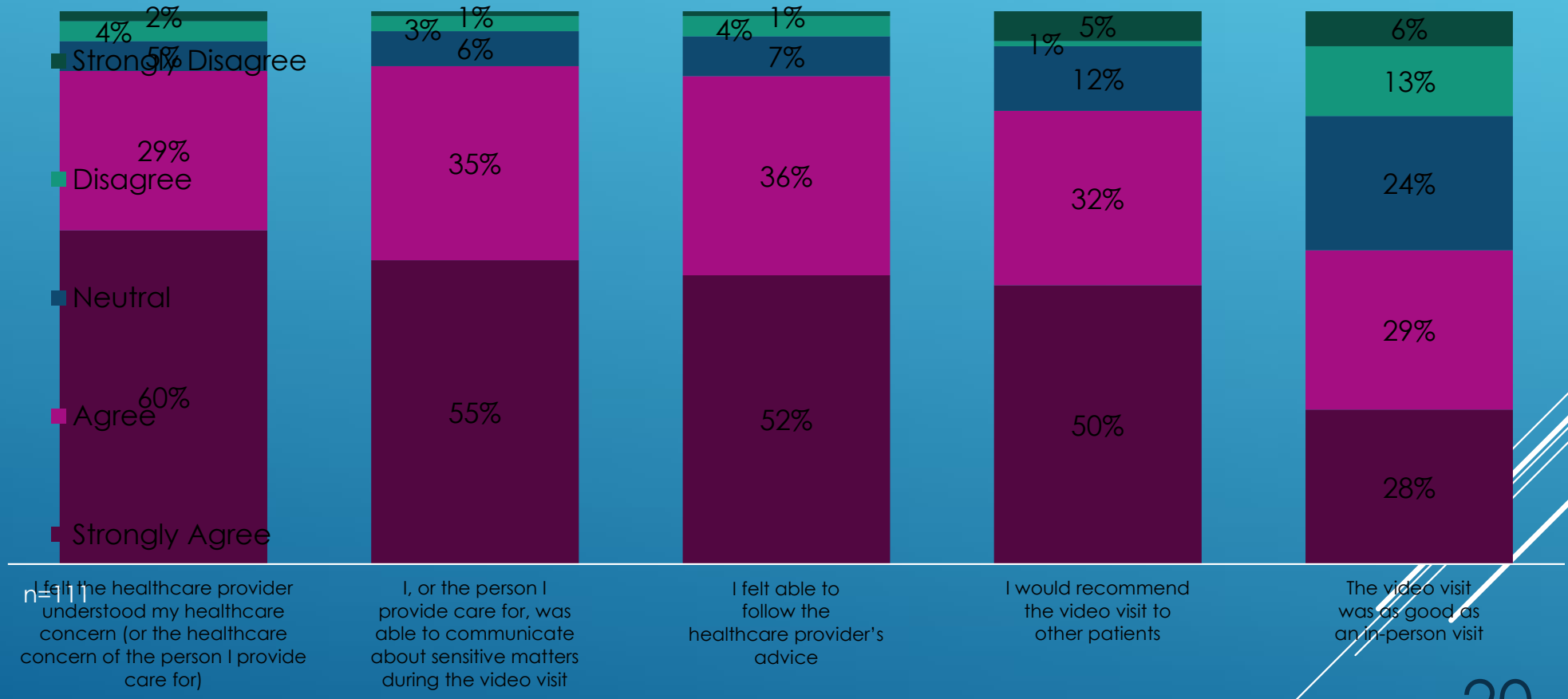
CAPHS (Consumer Assessment of Healthcare Providers and Services)

- **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 and African-American patients scoring lower and the elderly higher.

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.



n=111

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

TELEMEDICINE BENEFITS

Miles, time, and cost saved	
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
Crash Related Injuries and Fatalities Avoided	
Total Number of Crash Related Injuries Avoided	42.4
Total Number of Crash Related Fatalities Avoided	0.72

Sharma et al, 2022

CARBON SAVINGS

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
Brakewear PM 2.5	0.2
Tirewear PM 2.5	0.1

Sharma et al, 2022

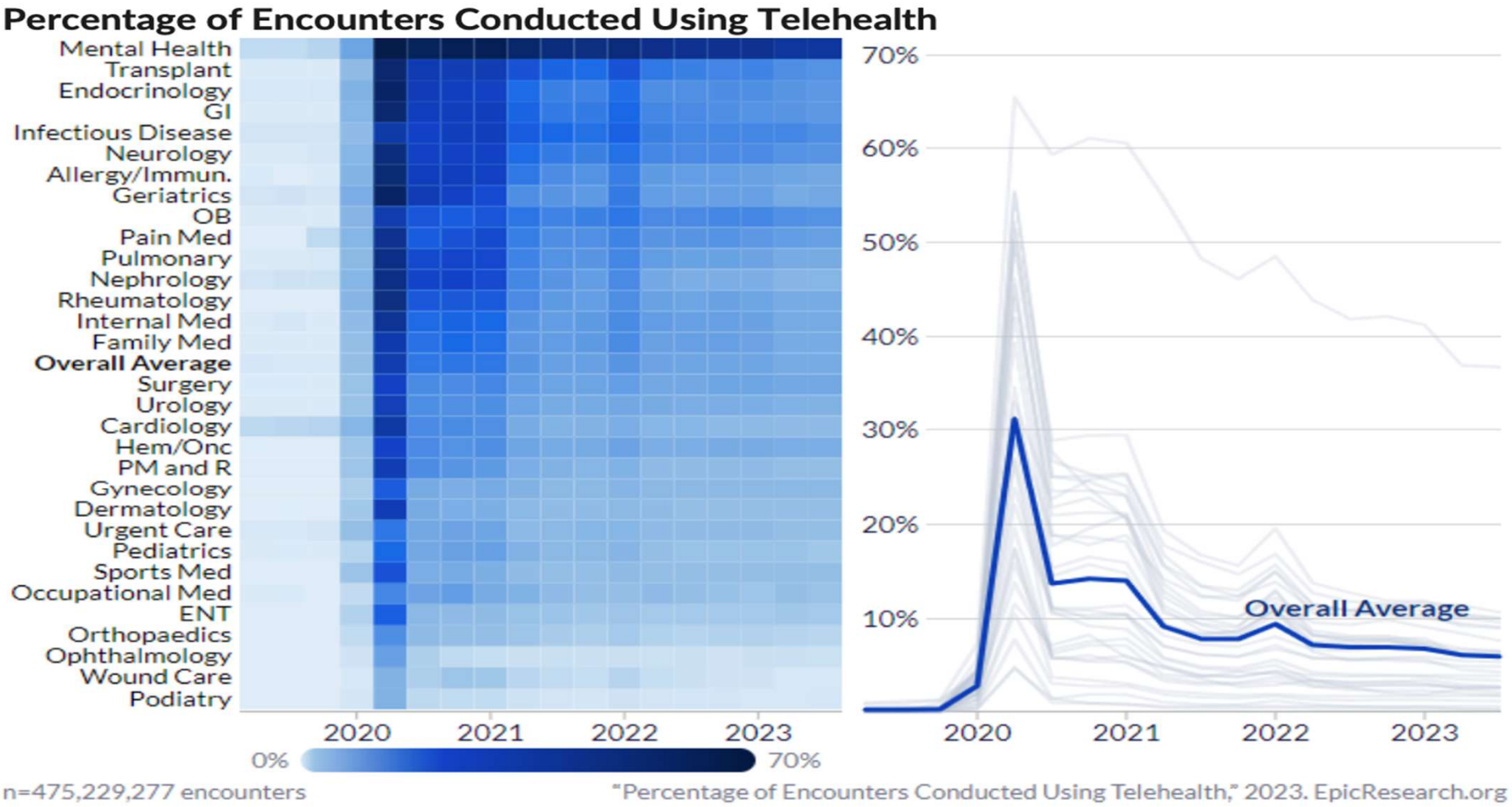


Figure 1. The proportion of visits in each specialty that are completed using telehealth sorted by average proportion of telehealth encounters over the study period.

These data come from Cosmos, a collaboration of 222 Epic health systems representing over 220 million patient records from 1,272 hospitals and more than 27,200 clinics from all 50 states and Lebanon. This study was completed by two teams that worked independently, each composed of a clinician and research scientists. The two teams came to similar conclusions. Graphics by Brian Olson.

475m encounters, 222 Epic systems, 220m patients
Mental Health Q2 2022 = 65%. Q3 2023 = 37%

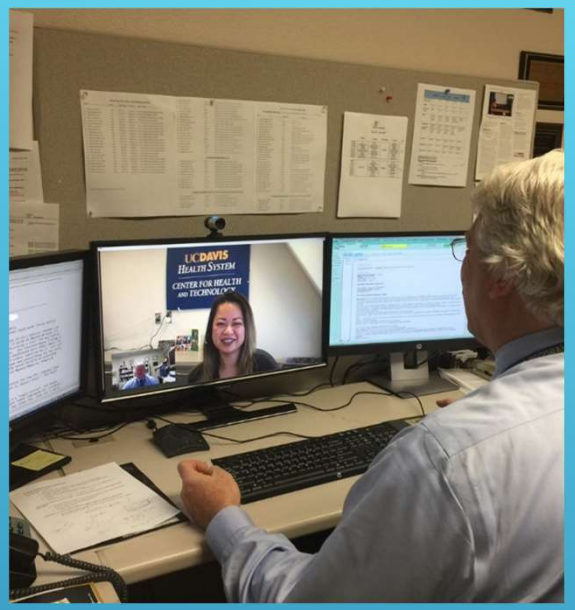
STAYING SANE WITH TECHNOLOGIES

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.

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

Permanent Medicare changes re mental health

- FQHC's and Rural Health Clinics can serve as a distant site provider for behavioral/mental telehealth services
- There are no geographic restrictions for originating site for behavioral/mental telehealth services
- Behavioral/mental telehealth services can be delivered using audio-only communication platforms

Temporary Medicare changes through December 31, 2024

- An in-person visit within six months of an initial behavioral/mental telehealth service, and annually thereafter, is not required
- Medicare patients can receive telehealth services for behavioral/mental health care in their home
- Telehealth services can be provided by all eligible Medicare providers
- Residents may be supervised virtually

Temporary Prescribing Changes through December 31 2024

- No changes to Ryan Haight Act, although DEA required to develop waiver process
- Patients can be prescribed schedules II-V controlled substances without a prior in-person examination as clinically appropriate and within your normal scope of practice.
- DEA registration in one state allows prescription of controlled substances in any state.

No long term changes

- Physician needs to be licensed in state that patient is located in except for VA/IHS

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

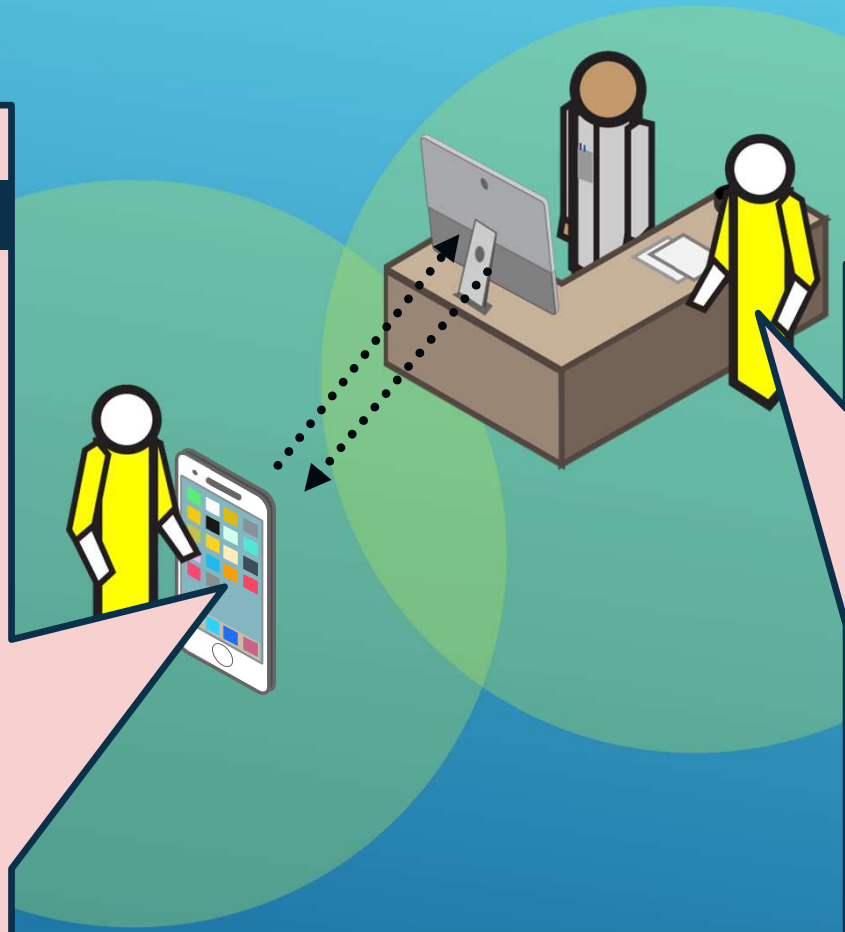
HYBRID CARE – A MULTIMODAL RELATIONSHIP

- 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

A. HYBRID CARE

VIRTUAL SPACE

- Advantage for those with avoidant behavior, PTSD, and anxiety
- Convenient & immediate
- Provider can observe patient in their environment
- Indirect & off-hours care opportunities
- Modalities include videoconferencing, e-mail, text messaging & telephony

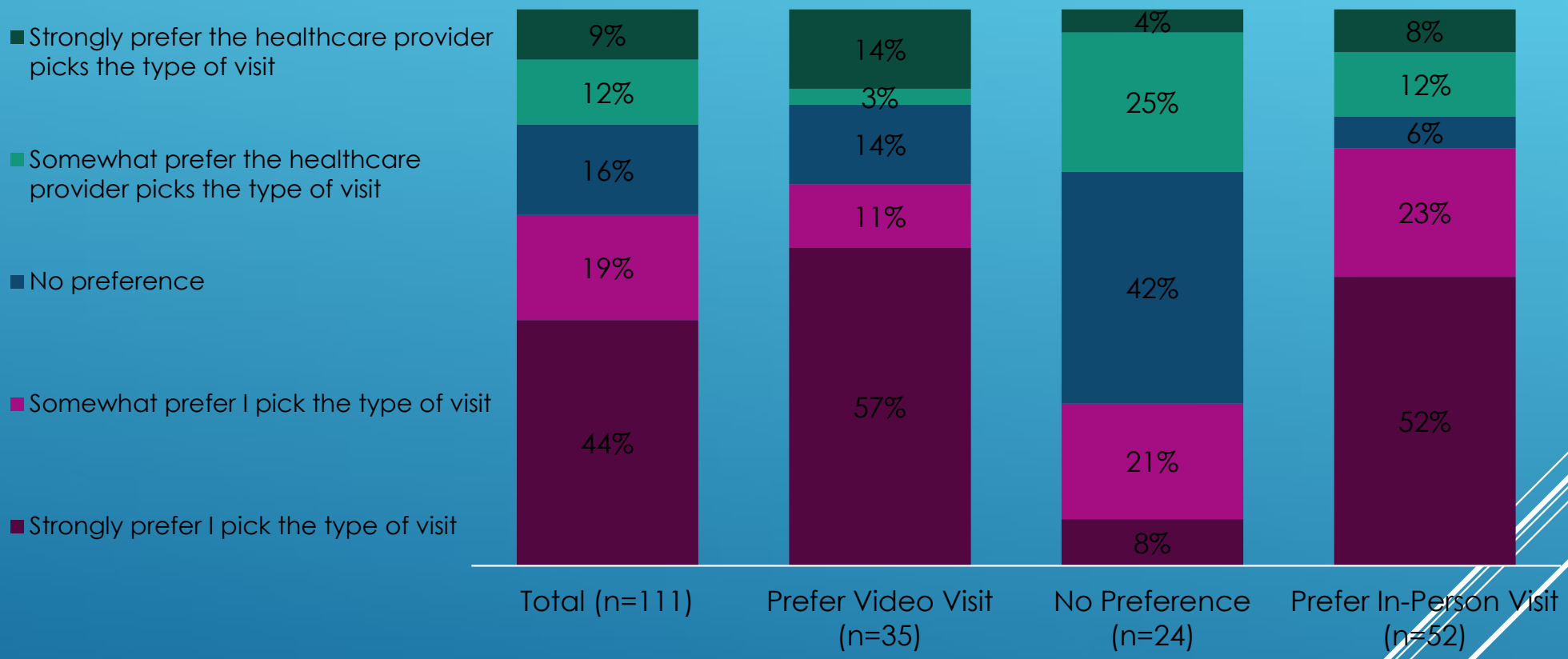


PHYSICAL SPACE

- Traditional in-person gold standard
- Immediacy & trust in interpersonal interaction
- Physical boundaries can be set for therapeutic frame
- Ample research and practice guidelines available for healthcare in the physical space

Diagram and illustrations by @StevenChanMD. Content based on Peter Yellowlees & Jay Shore.

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?

B. 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

ASYNCHRONOUS CONSULTATIONS

- 1. C-L / Collab care – curbside and consult
- 2. Residency training – in-person and virtual
- 3. Hybrid – social work interviews, summary and online psychiatrist. Collab care and nursing homes
- Hybrid – AI avatar interviewer and automated histories – in-person or online psychiatrist

ASYNCHRONOUS TELEPSYCHIATRY- 2024

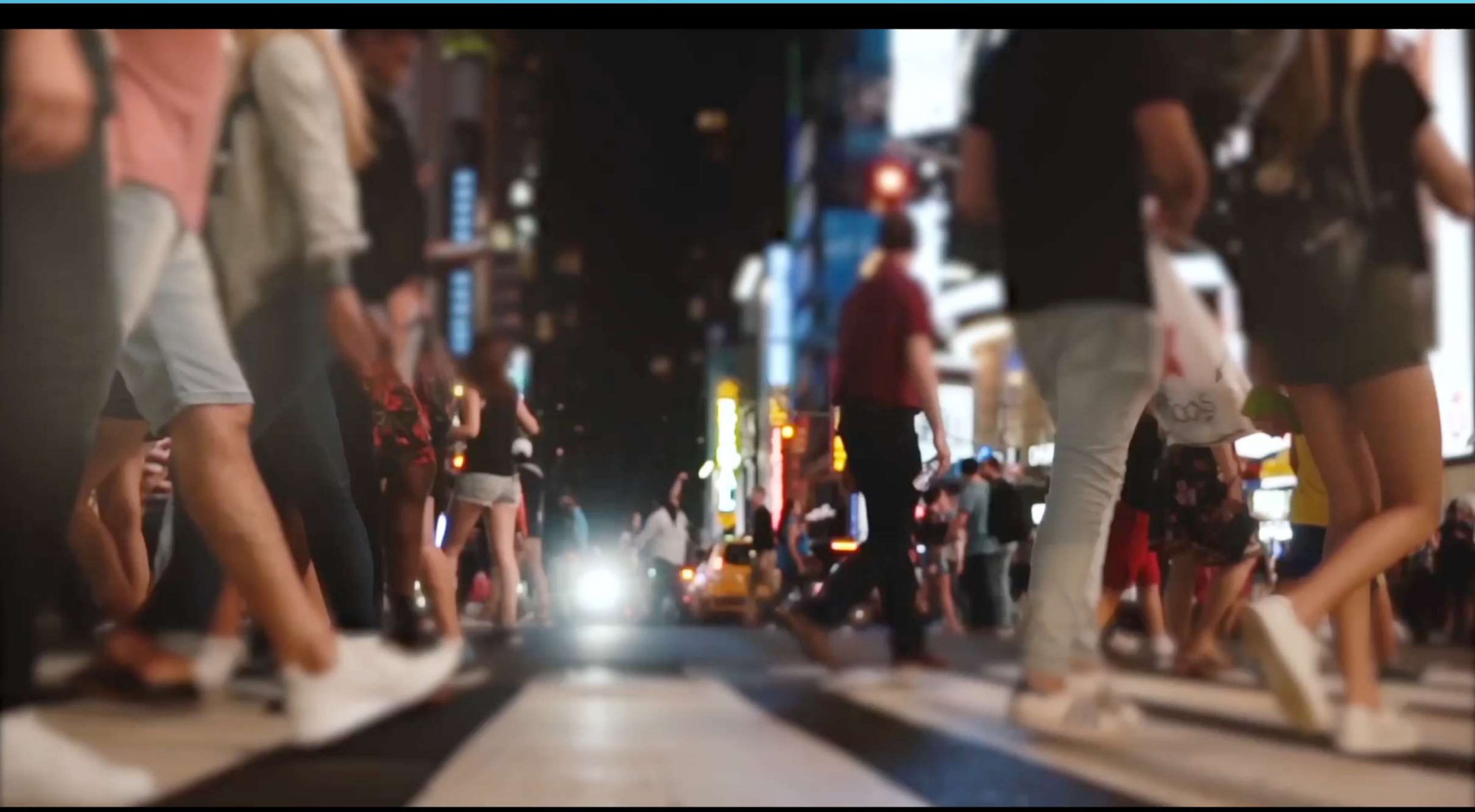
Assessments for Triage & Monitoring

Automated AI Avatar Interview with Patient

AI Analysis of Video & Audio

Psychiatrist Consult Review- hybrid

Asynchealth



BRIANNA – AI AVATAR

ASYNCHRONOUS TELEPSYCHIATRY

Intake Pathway - clinic

1. Referral
2. Automated AI Avatar Recorded Interview with Patient at home or in clinic

3. AI Analysis of Video & Audio files. Transcription, Summary and Medical Note

4. Psychiatrist Consult Review
   - a. Online
   - b. Hybrid - Online + in-person
   - c. Hybrid - Online + video

5. Ongoing care and monitoring

Asynchronous Telepsychiatry Evidence

5-year clinical trial showed diagnostic reliability, good clinical outcomes, patient and provider satisfaction

15 research and policy publications

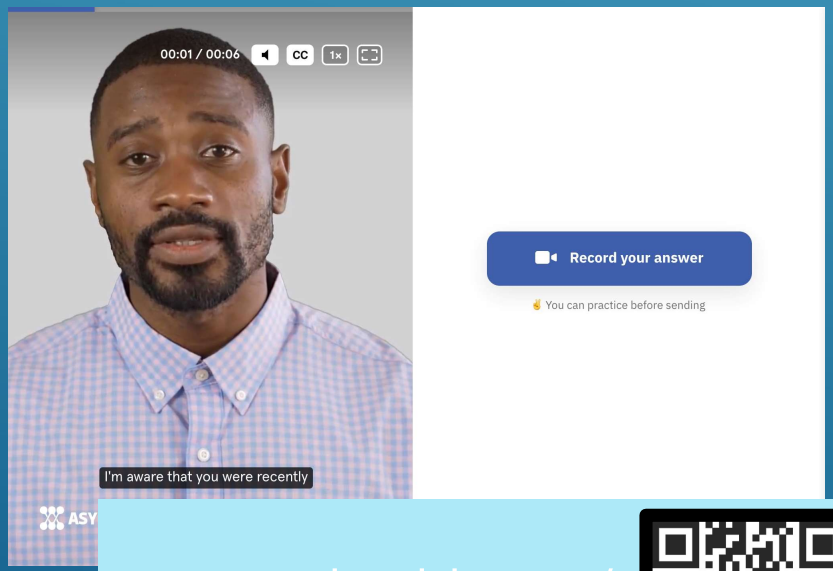
5 clinical trials funded by foundations and U.S. federal government

Over 550 videos of patients for machine learning analysis

Research current as of 3/21/2022

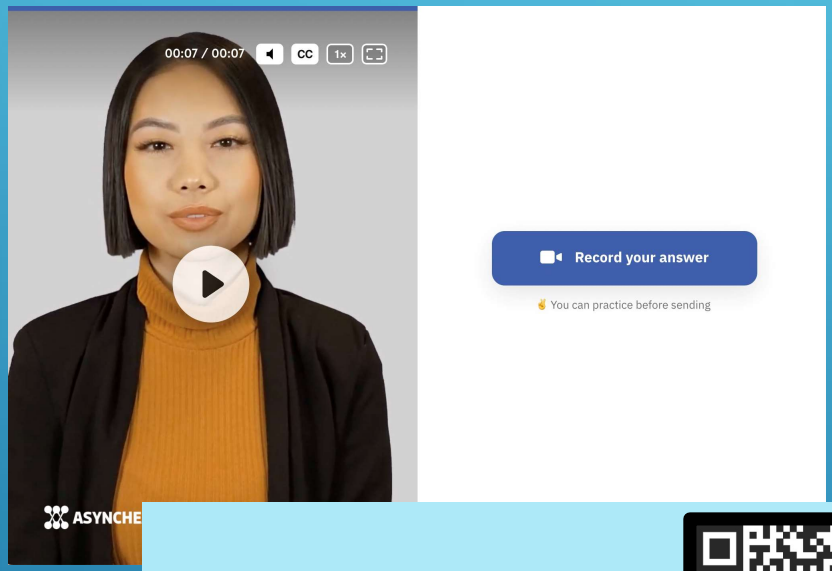
ASYNCHEALTH

Patients can meet with Devon...



go.asynchealth.com/ccps-devon

...or with Ivy.



go.asynchealth.com/ccps-ivy

ABC……

- Autonomy/control – the need to have control over our work lives and to act consistently with our work and life values
- Belonging – the need to be connected to, cared for, and caring of others around us in the workplace and to feel valued, respected and supported
- Competence – the need to experience effectiveness and deliver valued outcomes, such as high-quality care.

"Caring for doctors, Caring for patients" UK NHS Report 2019

WHAT DO PHYSICIANS NEED?

WELL-BEING BENEFITS OF HYBRID CARE FOR PSYCHIATRISTS

- **Autonomy:** independence, convenience, variety, efficiency, revenues, innovation, creativity
- **Belonging:** Flexibility and work-life integration – geographic and time – teamwork. Improving the climate and everyone's health by reducing carbon output
- **Competence:** Quality, safety, patient satisfaction

SUMMARY

- Growing range of technologies and models of care to use with patients with psychiatric disorders
- Hybrid care including virtual home visits moving toward the “new normal” – asynchronous consults offer largest opportunity to improve access and efficiency
- Health technologies are good for provider wellbeing

THANKYOU

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