

PREDiCTOR

Phenotypes REimagined to Define
Clinical Treatment and Outcome
Research - *AV Session*

IMPACT-MH Annual Consortium Meeting

Apr 29, 2026
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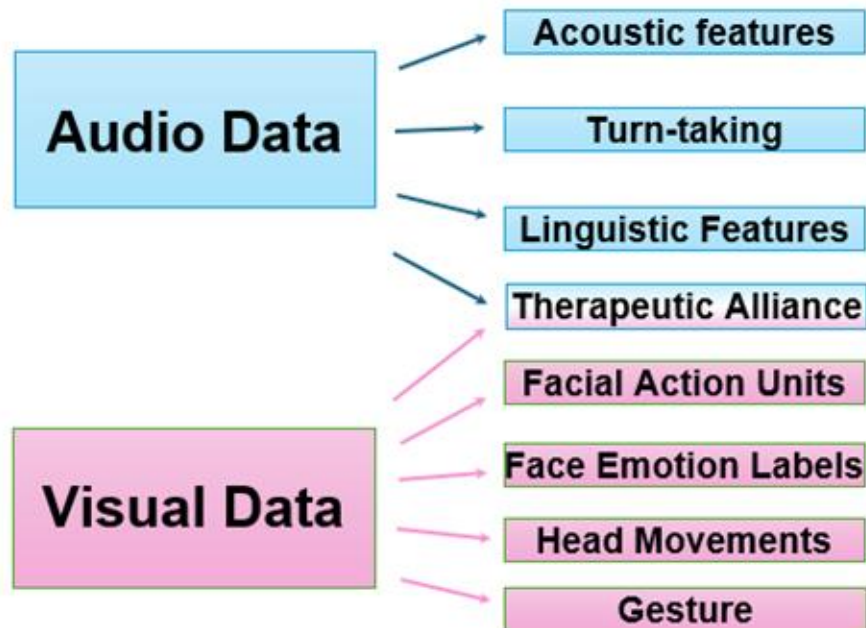


Audiovisual Recordings

Each year, there are approximately 57 million mental health visits in the US

(National Center for Health Statistics, National Ambulatory Medical Care Survey, 2019)

Rich breadth of information can be obtained from *behavior* during clinical encounters



AV Core Challenges & Solutions

How do we collect AV data during psychiatric care?

- EPIC Telehealth Integration
- Unobtrusive Onsite Recording
- Smartphone Diaries



How do we ensure AV data quality from multiple streams?

- Automated pipelines, Databases, Dashboards



dpinterview-web

Public

AV Core Guiding Principles

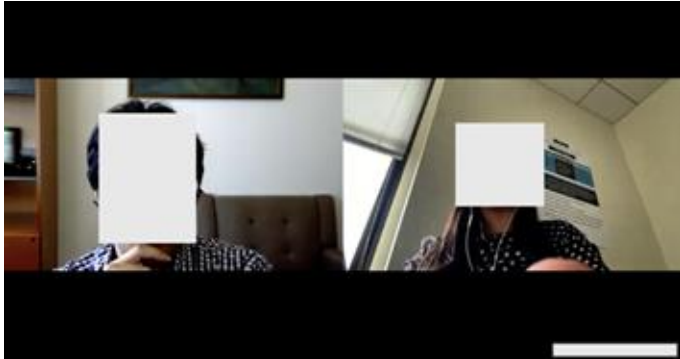
Keep a light touch

- Be a fly on the wall!
- The fewer moving parts, the better



AV Recording Streams

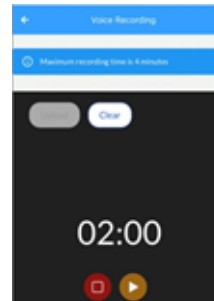
Telehealth



In-person



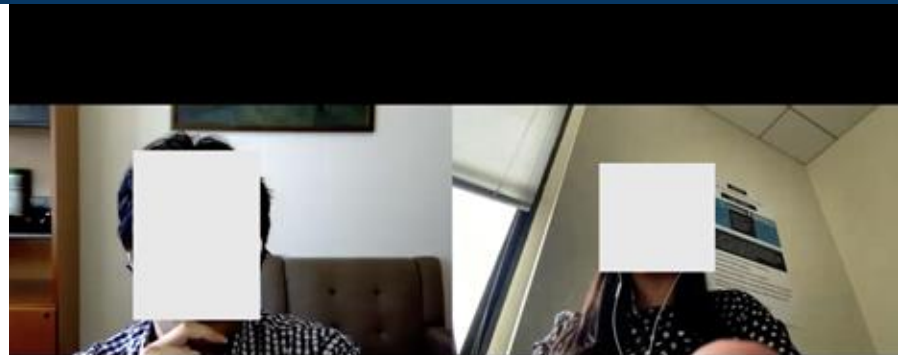
Audio Diaries



Telehealth Recordings

EPIC-embedded Zoom “PREDiCTOR Video Visit” Type

- Automatically records Zoom meeting with pre-established settings
- Front desk staff can change Virtual Visits to “PREDiCTOR Video Visit” for consented patients



Combined Audio
(from video file)



Clinician Audio
(from audio file)



Patient Audio
(from audio file)



Onsite AV Setup



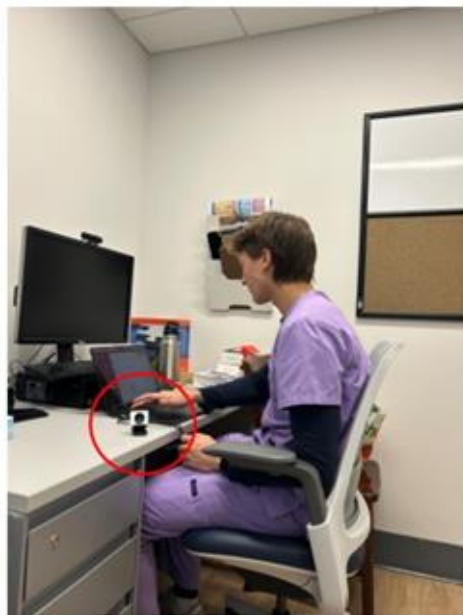
Onsite AV Setup

In-person Recording Setup

- Dual cameras
 - OBSBOT Meet 2 Webcam
- Single microphone
 - MicW iBoundary Condenser Microphone
- Macbook Pro recording to OBS



Participant Feedback: OBSBOT Webcams



Patient POV



Clinician POV

Participants agreeing to recording
Pilot Study → 95.6%
PREDiCTOR → 94.2%

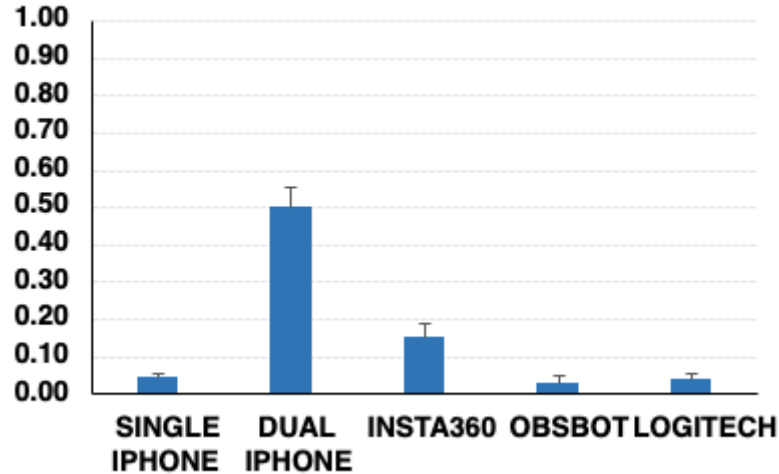


QA/QC: Visual Analysis Results

Lower value = better

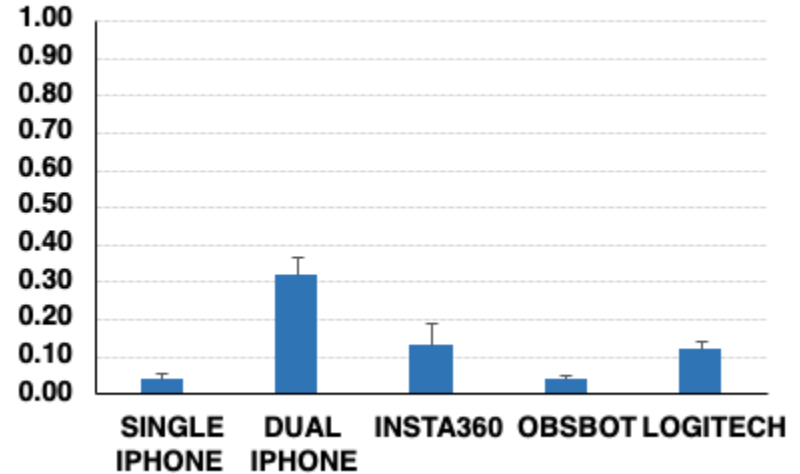
Rate of Missed Faces

rate_miss_faces

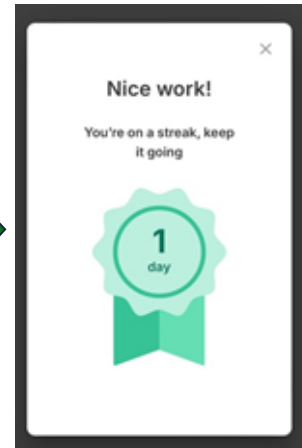
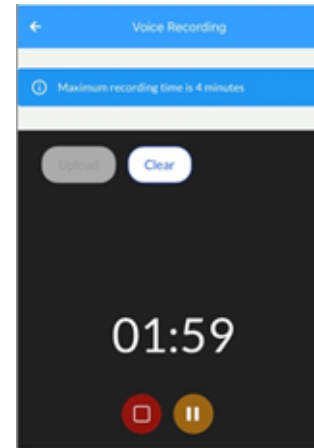
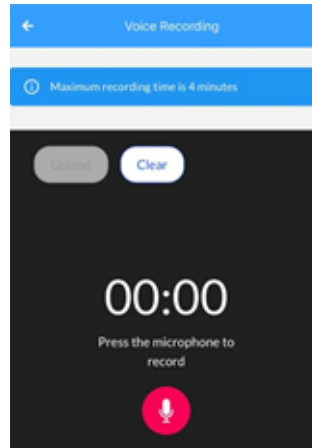
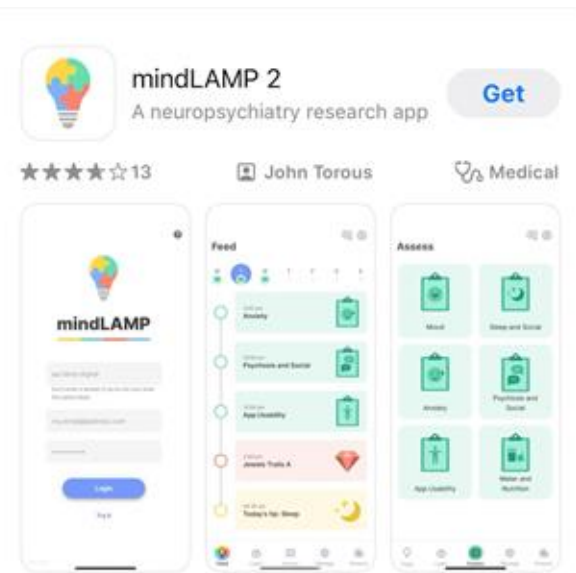


Rate of Missed Facial Landmarks

rate_miss_landm



MindLAMP Audio Diaries



Capturing Behavior In and Out of the Clinic

Ecologically valid AV data collection is feasible and scalable across remote, onsite, and mobile contexts.

	Telehealth Care	Onsite Visits	Voluntary Diaries
How?	EPIC-embedded PREDiCTOR visit type	Unobtrusive, portable hardware capture setup	MindLAMP platform
Audio	Separate audio streams for patient and clinician	Single audio stream collected by discrete microphone	Audio diaries via mobile phone
Video	Split gallery view of patient and clinician video	Separate video streams for patient and clinician	-

Quality Assurance - Defining Data Capture

Standard operating procedures (SOPs) and REDCap

- SOPs ensure consistency in room setup, file formats, and capture settings
- REDCap instruments standardize descriptions of how recordings went

AV Recording Settings SOP









Table of Contents

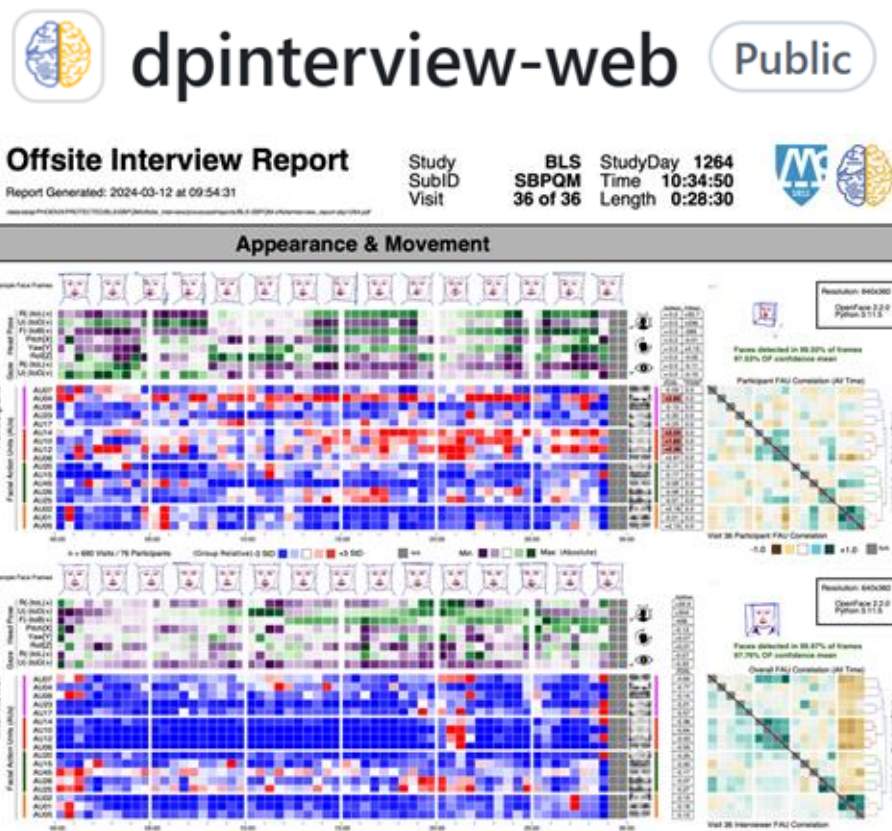
Computer Applications	2
<i>OneDrive Setup</i>	2
<i>Amphetamine Setup</i>	2
OBS Settings	4
Connecting and Configuring Webcams in OBS	7
Clinic Room Setups.....	10
Recording Clinical Sessions	11

Pre-Recording AV Checklist

- Ensure proper OBS “Settings” > “Output” > “Recording”
 - “Recording Path” ends in “- PREDiCTOR/Data/Raw/AV/Recordings”
 - If not, check AV Recording Settings SOP p. 2 and p. 5 for instructions
 - “Recording Format” = Matroska Video (.mkv)
 - “Video Encoder” = x264
 - “Audio Encoder” = FFmpeg ALAC (24-bit)
 - “Audio Track” – **all tracks should be checked**
 - “Rate Control” = CBR
 - “Bitrate” = 45000Kbps
 - “Keyframe Interval” = 5 s
 - “CPU Usage Preset” = ultrafast

Quality Control - Aggregation & Dashboarding

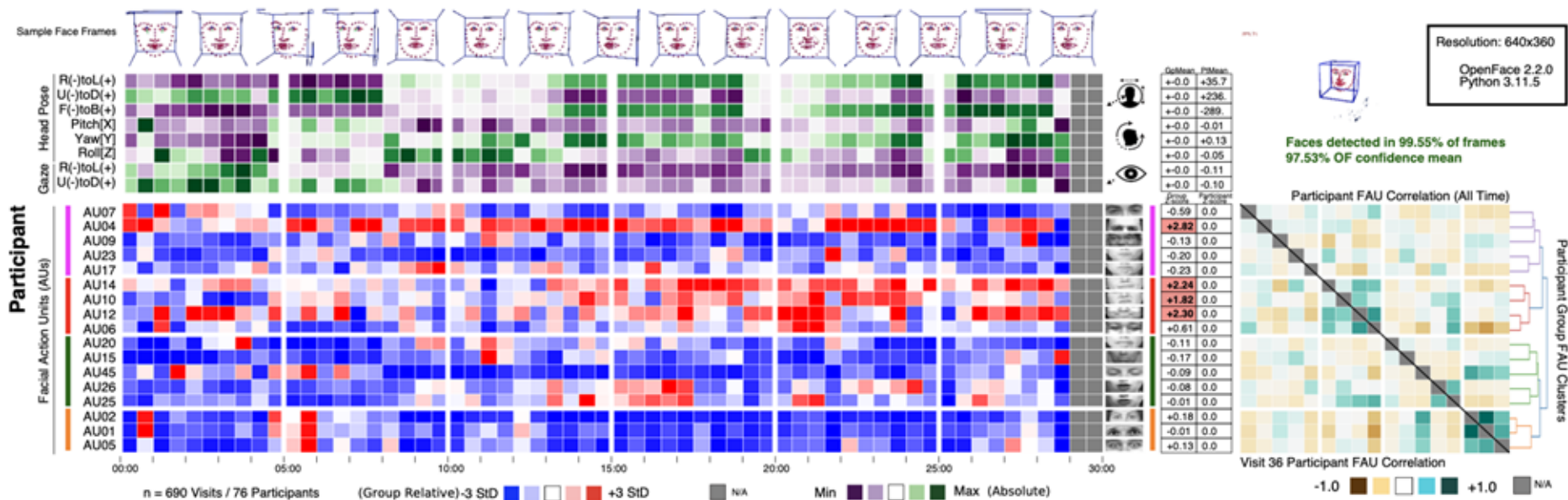
- 1/10/2023**
over 2 years ago  **Interview Conducted**
Over Zoom
- 9/28/2023**
over 1 year ago  **Data Received**
Aggregation server
- 4/21/2025**
7 days ago  **Metadata Extraction**
Completed
- 4/21/2025**
7 days ago  **Quick QC**
Black Bars (Zoom Gallery Mode) Detected
- 4/21/2025**
7 days ago  **Split Streams**
2 Video Streams
- 4/21/2025**
7 days ago  **Feature Extraction**
2 OpenFace Runs
- 4/22/2025**
6 days ago  **OpenFace QC**
Passed (98% frames)
- 4/24/2025**
4 days ago  **PDF Report**
Generated



Multimodal Features for Analysis

NDA data constructs inherited from AMP-SCZ

Appearance & Movement



AV Team



Cheryl Corcoran



Guillermo Cecchi



Marc Aafjes



Justin Baker



Eduardo Castro



Carla Agurto



Einat Liebenthal



Marcelo Cicconet



Rachel Jespersen



Stephen Heisig



Lauren Lepow



Muhammad Parvaz



René Kahn



Yulia Landa



Shalaila Haas



Helen Mayberg



Youssouf Kebe



Theo Servedio



Nazly Suarez



Sophie Riviere



Maya Valenzano



Bailey Todtfeld



Heather Thibeau



JT Colonel



Adam Davidson

Thank you!

Any questions?