

Video Interviewing: An Optimal Solution for a National Behavioral Health Survey

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1. Introduction/Abstract

The Mental and Substance Use Disorders Prevalence Study (MDPS) is a pioneering national study to estimate the prevalence of serious mental and substance use disorders among adults in the United States, including those residing in households, prisons, homeless shelters, and state psychiatric hospitals. The MDPS used a three-stage design for the household survey that consisted of a roster to establish eligibility and select adults for participation, a mental health screening survey that was used to disproportionately select those with a higher likelihood of disorders, a clinical interview that included the Structured Clinical Interview for DSM-5 (SCID-5[®]) (SCID-5[®]; First et al., 2015), and questions about treatment receipt. In the non-household component, a roster of age-eligible residents was obtained from participating prisons, homeless shelters, and state psychiatric hospitals. Then, the roster was sorted by key characteristics of the individuals, such as age and time since admission, and a random probability sample was then selected from the sorted roster via a systematic sampling scheme. MDPS utilized clinicians with clinical training in mental health, including experience conducting the SCID-5[®], to conduct clinical interviews. The clinical interview was programmed in Blaise 5 and included a link to the NetSCID-5, a web-based version of the SCID-5. Video interviewing was planned for a large subset of the household sample, but the COVID-19 pandemic forced us to switch to this new paradigm for all of the household clinical interviews and to offer video interviewing as an option for clinical interviews conducted in the non-household settings. This paper describes the systems developed to support video interviewing and integration of a Blaise instrument on a large national data collection effort conducted in multiple settings. It also describes the development of an interview scheduling tool, automated reminders, logistical considerations in the various settings (i.e., interviewer and respondent setup), video recordings, quality reviews, interview editing, and feedback provided by both interviewers and respondents. Over 3,700 video interviews and 1,600 phone interviews were conducted using Zoom, in addition to approximately 200 in-person interviews within the facility settings. Video interviewing offers a novel mode of data collection with many of the same benefits of face-to-face interviewing and the added benefit of audio and video recording of the interviews. Lessons learned and future recommendations for national surveys are also provided.

2. Background

The initial plan was to conduct most household clinical interviews in person or by video, a subset by phone, and the non-household clinical interviews in person. Data collection was scheduled to start in July 2020. Because of the COVID-19 pandemic, we abandoned the in-person clinical interview data collection mode for the household sample. Video interviews were prioritized, and phone interviews were offered to respondents who couldn't or did not want to participate via video. The non-household data collection plan was also revised to incorporate video and phone modes.

3. Developing Systems for MDPS Video Interviewing

3.1 Web Scheduler

Because the household rostering and screening was web based, it became imperative that we have a reliable and convenient mechanism to schedule the video clinical interview. We took advantage of the fact that the respondent was already on the web completing the screener to offer them the opportunity to schedule their interview through the web. Later in the data collection process, when we did send out field

interviewers to administer the roster and screener, we were able to leverage the same web-based scheduler to schedule the household clinical interviews.

We designed the web scheduler to be as flexible as possible so that the same page could be used by both the respondents themselves and a variety of interviewing staff. At the end of the screener, respondents were automatically directed to the scheduler; respondents could also access the scheduler from the MDPS website using an access code. RTI International’s call center staff could access the scheduler if a respondent called in to schedule or reschedule their appointment. RTI’s computer-assisted telephone interviewing (CATI) staff and RTI field staff were routed to the scheduler at the end of the screener. RTI field staff also accessed the scheduler from their tablets as part of the field interviewer prompting effort.

The scheduler allowed the user to schedule, reschedule, or cancel the appointment. The scheduler automatically adjusted for the time zone and adapted for the availability of bilingual interviewers. It provided a confirmation screen for each of the actions that made the outcome of the user’s actions clear to them.

Automated emails were sent to the respondents to confirm their appointments and to alert them 3 weeks, 1 week, and 1 day prior to their appointments. In addition, CIs received automated emails that listed the appointments for a given day. Figure 1 shows how data collection staff and respondents selected the date and time for the clinical interview appointment in the scheduler.

3.2 Clinical Interview Instrument

The purpose of the clinical interview instrument was to collect data to assess symptoms of mental and substance use disorders among adults and the proportion of adults who received treatment. The instrument was programmed using Blaise 5, and a SCID-5® instrument was launched within Blaise. All interviews were conducted by trained clinicians such as psychologists, psychiatrists, or social workers who had received training on MDPS instrumentation and procedures. Interviewers met with respondents via video, phone, or in person (non-household sample only) to conduct the clinical interview.

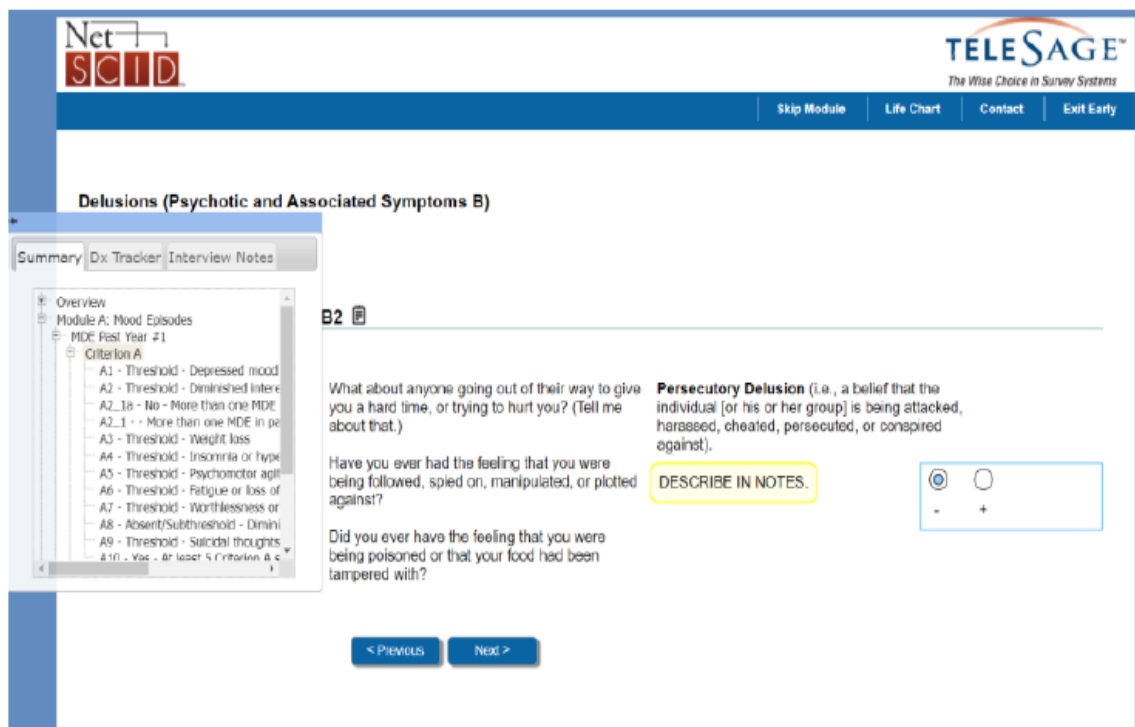
At the beginning of the clinical interview, respondents were asked for permission to record the interview. After completion, demographic information; use of tobacco, alcohol, and drugs; and the names of used medications was

Figure 1. Scheduler Screen for Appointment Date/Time



collected. To begin the SCID-5, an action “GotoUri” was used from the Blaise instrument to start the RTI-developed NetSCID app.

The NetSCID allowed interviewers to connect to a third-party website to continue the interview. The NetSCID is a computerized version of the SCID-5. Once the NetSCID was completed, control went back to the Blaise survey for interview completion. In addition, a stand-alone Windows application (using C#) was built to allow administrators to connect to a specific case and download reports that contain data saved for that case.



The clinical interview was installed on a laptop with a Case Management System was set up to help the clinical interviewers (CIs) navigate through the list of respondents and to launch the Blaise interview.

When the SCID-5 was completed, control was returned to Blaise and the interviewer collected treatment information and feedback from the respondent about the interview and their own opinion in the Blaise instrument.

3.3 Video

Zoom was used by CIs to conduct clinical interviews with respondents in households and non-household facilities. Zoom meeting invitations were sent by email through CIs' Outlook accounts so that each Zoom session would have its own unique password. An Android tablet was used by the clinical interviewer to schedule and record the Zoom interviews and a laptop was used to administer the clinical interview questions. The video was recorded with the respondent's consent, and recordings were uploaded to the MDPS private site for a quality check.

Approximately 67% of the household clinical interviews and 31% of non-household clinical interviews were conducted via video.

3.4 Private Site

A private site was developed to allow managers and supervisors to track interview scheduling and to modify schedules if needed. The site also allowed interviewers to upload Zoom recordings so that supervisors were able to review data quality. In addition, the site was designed to allow authorized users to conduct training and interrater reliability exercises.

The site was designed using .Net C#. It used a combination of webforms, APIs, and web services to allow users to not only navigate the site but also incorporate web services to allow access for recordings and external clients. Once the interview was completed, the interviewer received the URL to the Zoom recording file and associated password to access the recording. The interviewer then uploaded the file to the private site. Once uploaded, the file was linked to a case, and managers and supervisors were able to access, download, and review the file for quality control. Figure 2 shows the private site main menu.

Figure 2. Private Site Main Menu



3.5 Quality Control

Another advantage of video interviewing was that with the respondent's permission, the interview was recorded; these recordings were available for data quality reviews. Recordings were stored and reviewed on our private study website. The clinical section, which consisted of the structured clinical interview for the DSM-5, was reviewed by clinical supervisors (CSs). The nonclinical (Blaise) section, which included consents and questions on gender identification, cigarette and e-cigarette use, treatment, and COVID-19, was reviewed by data quality managers (DQMs).

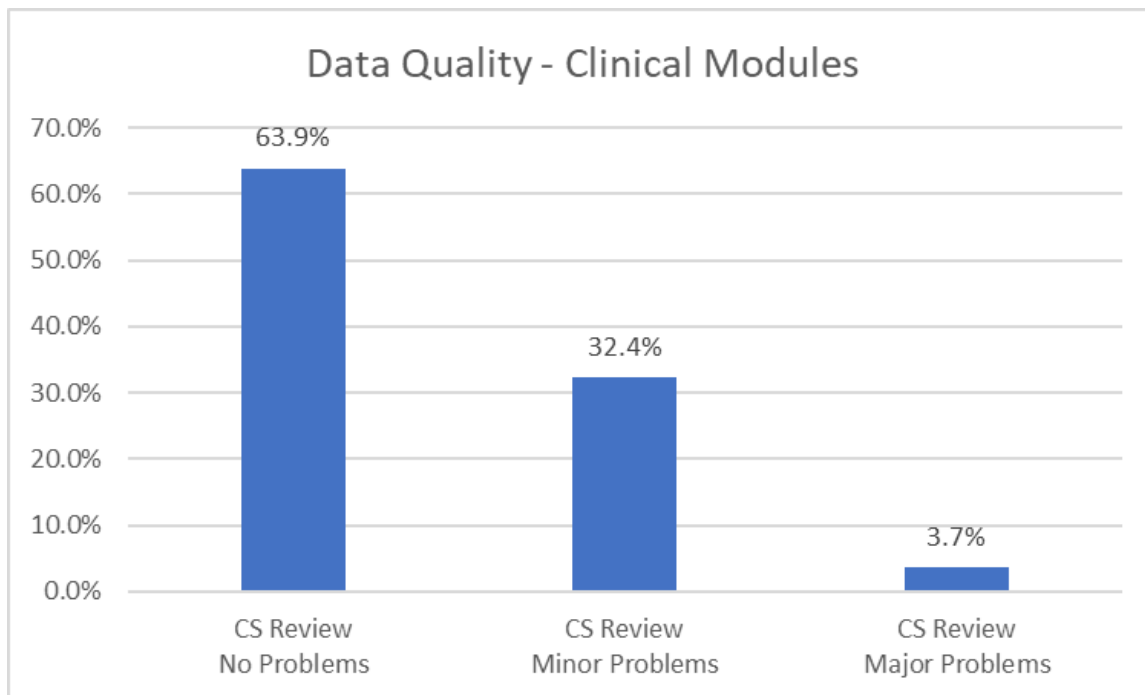
CSs accessed the CS Data Quality section of the private study website to review and score the clinical module administration. This involved the CS accessing both the completed SCID and the interview recording, reviewing the data collected item by item, and comparing the notes provided by CIs with diagnostic ratings. CSs reviewed 10% of all completed interviews, which included (1) interviews selected at random and (2) interviews manually selected for review via the CI or the CS requesting that the interview be placed in the 10% review pile because of some uncertainty about any part of scoring. In addition, some video- and audio-recorded interviews that were not selected for full review received partial reviews upon CI request. For example, if a CI needed a second opinion on the scoring of a specific module, such as PTSD, this part of the interview was reviewed by their CS. For full reviews, either the audio or video recordings were reviewed in their entirety. If an interview was partially reviewed, audio and video file(s) were used, as necessary, to clarify responses, supplement notes, or support the CI's SCID ratings.

All clinical interview feedback was documented on a dedicated, interview-specific clinical review summary form, which included records of clinical editing, individualized feedback, and systems for monitoring CI performance. CSs provided CI performance ratings on their SCID module administration, and documented strengths and areas of improvement related to clinical interviewing. This summary form was used to provide feedback directly to CIs. Reviews included ratings on the following:

- providing accurate and sufficient notes,
- assigning proper or missed codes,
- the amount of probing,
- the types of probing,
- obtaining an adequate amount of relevant information,
- resolving inconsistencies,
- maintaining a professional demeanor,
- establishing rapport with the respondent,
- dealing with the respondent’s emotions and body language properly,
- obtaining a description of the experiences a respondent reports in the respondent’s own words,
- maintaining the correct interview pace,
- differentiating between symptoms that are easily confused, and
- handling distressed respondents appropriately.

After each review, the CS coded the case on the private site to indicate whether there were major issues, minor issues, or no issues with the interview. Minor issues involved symptom-level scoring changes that did not impact disorder-level scoring changes. Major issues involved disorder-level scoring changes. Data from interviews deemed to have issues that required a change in scoring were corrected by the CS before case finalization. Figure 3 shows the data quality outcomes of the clinical modules reviewed.

Figure 3. Clinical Data Quality



The DQMs accessed the DQM Data Quality section of the private study website to review the same set of interviews elected for CS review. DQMs focused the review on how well the CI administered the Blaise portion (i.e., non-SCID portion) of the clinical interview. This review included ensuring that CIs followed instrument scripts and collected accurate, high-quality data. All CIs’ first two completed clinical interviews and 10% of all completed clinical interviews were selected to have the Blaise instrument administration reviewed. The DQM shared feedback from these Blaise reviews with the CI’s Data

Collection Manager, who shared results with their CI via email or a face-to-face meeting, depending on the number and severity of issues identified. Results of these reviews were independently tracked by the data quality team.

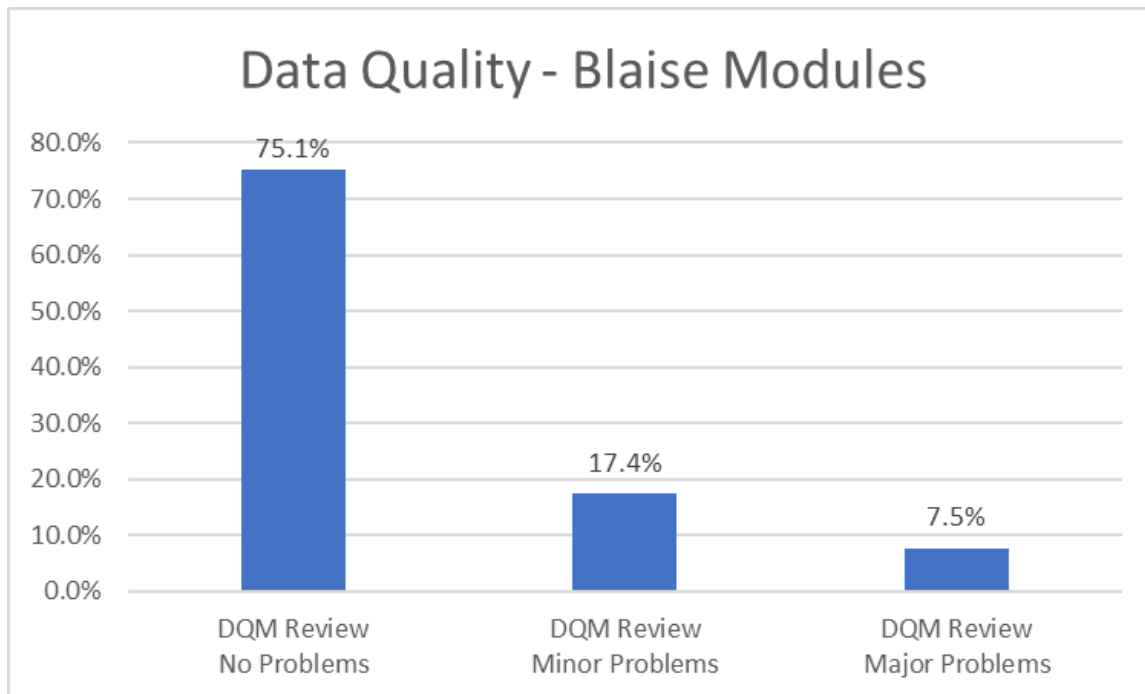
Blaise reviews were conducted by reviewing clinical interview recordings alongside the Blaise instrument specifications. Reviewers input individual interview results within a project-specific Blaise review tracking system that allowed for section- and interviewer-specific grades. The tracking system was broken down into three review sections:

- Front-end Blaise—including ratings and error notes (i.e., no errors, few errors, many errors) on properly administering consent and all pre-SCID questions
- Back-end Blaise—including ratings and error notes (i.e., no errors, few errors, many errors) on all post-SCID modules
- Interviewer Feedback—including ratings (i.e., unsatisfactory, satisfactory, excellent) on reading questions verbatim, effective probing techniques, not introducing bias, answering respondent questions and concerns, and interviewing pace and presence

After each review, the DQM coded the case on the private site to indicate whether there were major problems; minor problems, which meant there were errors that did not change the meaning of the question; and major problems, which meant that there were errors that did change the meaning of a question.

Figure 4 shows the data quality outcomes of the Blaise modules reviewed.

Figure 4. Blaise Data Quality



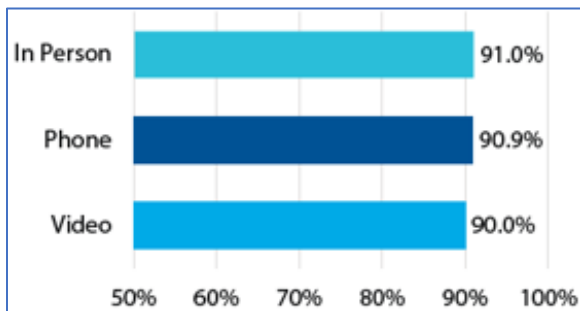
3.6 Feedback

Obtaining CI and respondent feedback on the clinical interview process was critical to inform study protocols and future data collection efforts. At the end of each clinical interview, we collected feedback from both the respondent and the CI about the clinical interview. We also sent each CI a survey near the end of the data collection period to collect additional information. A summary of the feedback received is included in the sections below.

3.7 Respondent Feedback

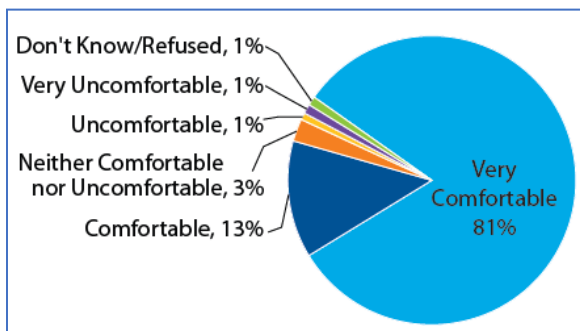
Because respondents could participate in the clinical interview via video, phone, or in person (non-household cases only), we asked about their comfort level with their selected interview mode. We found that 90% of respondents who completed the interview via video indicated they were comfortable; this was comparable to phone and in-person modes (Figure 5).

Figure 5. Respondent Comfort Level with Selected Interview Mode



We also asked video respondents how comfortable they were using Zoom; 94% indicated they were very comfortable or comfortable (Figure 6).

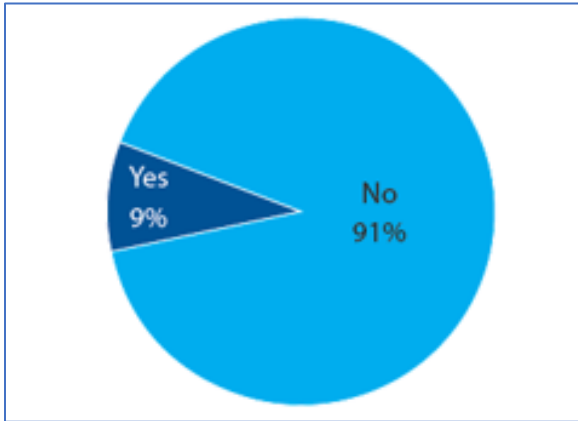
Figure 6. Respondent Comfort Level Using Zoom



3.8 Clinical Interviewer Feedback

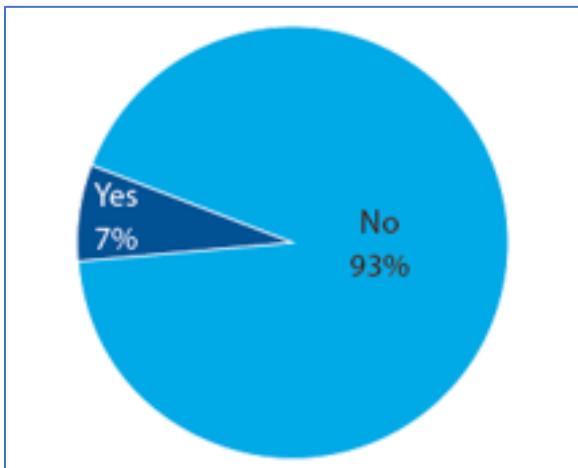
At the end of the interview, CIs were asked about the respondent's experience with Zoom. Figure 7 shows that most respondents did not have any technical difficulties with Zoom.

Figure 7. Respondent Technical Difficulties with Zoom



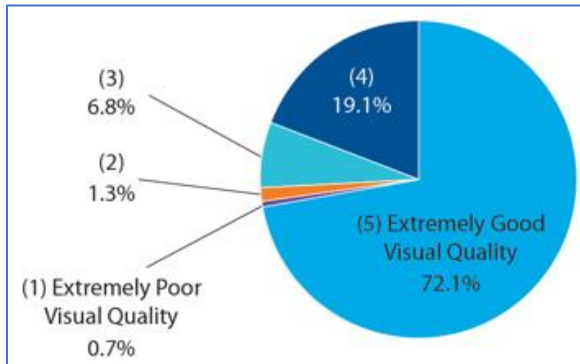
CIIs also reported that most respondents did not get disconnected from the video interview (Figure 8).

Figure 8. Respondent Disconnection from Video Interview



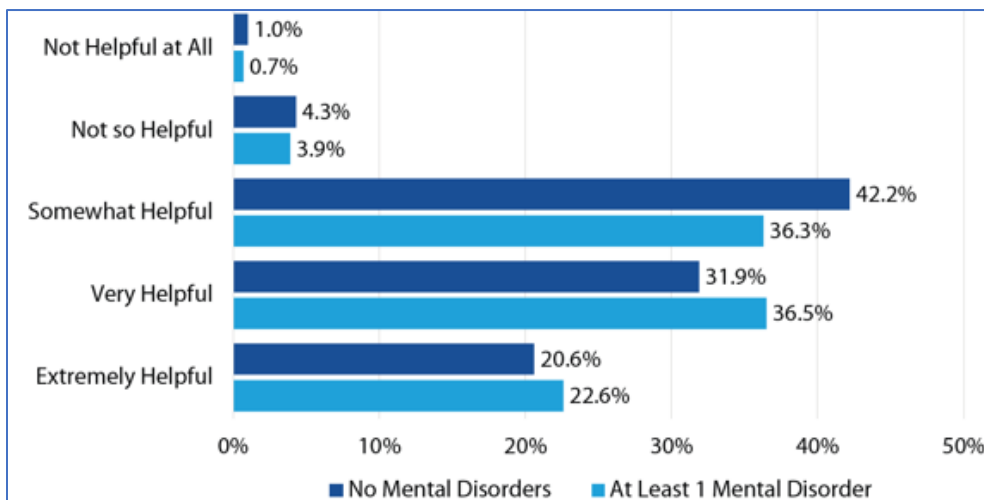
Because visual observations were important for this study (clinical observations were critical to accurately assess the negative symptoms of schizophrenia spectrum disorders), we also asked about the quality of the video. CIIs indicated that for 91% of the interviews, the quality of the video was extremely good or good (Figure 9).

Figure 9. Overall Visual Quality of Interview



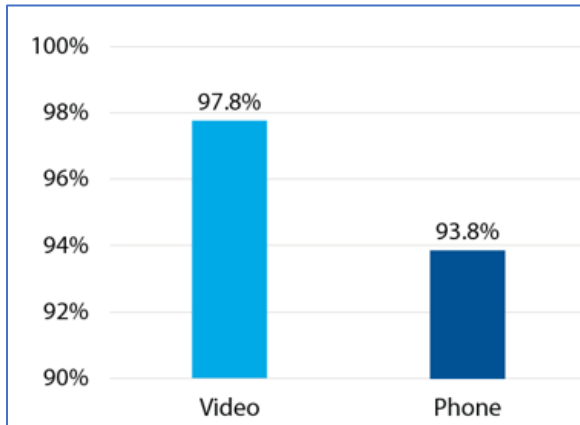
We also asked CIs about the use of visual observations in making diagnoses. In about 71% of cases where the respondent had at least one mental disorder, CIs indicated that they used visual observations. Figure 10 shows CIs' ratings of how helpful visual observations were in making a diagnosis—comparing respondents with no mental disorders to respondents with at least one mental disorder.

Figure 10. Helpfulness of Visual Observations in Making Diagnosis



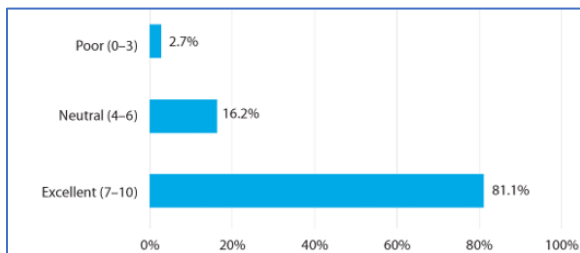
CIs also indicated that the CI and the respondent were able to hear each other clearly during most of the interviews; the percentage was slightly higher for video interviews (Figure 11).

Figure 11. Interviewer and Respondent Able to Hear Each Other Clearly During Most of Interview



In a debriefing survey, CIs were asked to rate the functionality of the video interviewing process using a scale of 0 to 10. Figure 12 shows that most CIs rated the process as excellent.

Figure 12. Functionality of Video Interviewing Process



CIs also reported that Zoom was easy to use for all parties (CIs and respondents) and that most respondents were very familiar with Zoom.

4. Conclusions (Including Benefits/Drawbacks)

We found video interviewing to be an effective method and a feasible alternative to in-person interviewing. Ninety percent of our respondents reported being comfortable with video interviewing; 94% reported being comfortable with the interviewing software. Having the audio and video recordings made it easier to authenticate the interviews.

However, there were some drawbacks to using this method. Initial setup of Zoom required significant involvement of a technical support team. Uploading large video files took a lot of bandwidth, which resulted in increased interviewer and technical support labor. While the scheduler did send an appointment confirmation and automated reminders, the CI was still tasked with sending the interview Zoom link. CIs shared that using two devices (the tablet for Zoom and the laptop to administer the clinical interview questions) was challenging.

5. Future Recommendations

To avoid the issue with uploading large video files, reviewing them directly in the cloud would be a more robust solution. In addition, using a single device with two monitors—one to display the interview and

the other for the Zoom window—would be more convenient from a usability point of view. Automating the process of sending the Zoom link to the respondents would reduce the burden on CIs.

6. References

First, M. B., Williams, J. B. W., Karg, R. S., & Spitzer, R. L. (2015). *Structured clinical interview for DSM-5—Research version* (SCID-5 for DSM-5, research version; SCID-5-RV) (pp. 1–94). American Psychiatric Association.

NetSCID is a computerized version of the Structured Clinical Interview for the DSM-5 (SCID-5) and is fully licensed by the American Psychiatric Association through American Psychiatric Association Publishing. <https://www.telesage.com/netscid-5>