A National Survey of Problem-Solving Court Staff Perceptions of In-Person versus Virtual Hearings

Barbara Andraka-Christou, JD, PhD, Danielle D. Atkins, PhD, MPA, M. H. Clark, PhD, Brandon del Pozo, PhD, MPA, MA, and Bradley Ray, PhD

During the COVID-19 pandemic, problem-solving courts adopted virtual hearings. We conducted an online nationwide survey with a convenience sample of court staff to elicit their perceptions of court participants’ attendance, engagement, willingness to talk, and ability to form connection with judges during in-person versus virtual hearings. Sign tests compared ordinal ratings for perceptions of court participant outcomes during in-person versus virtual hearing modalities, and for audiovisual technology versus audio-only technology. The final analysis included 146 staff. Staff felt that during in-person hearings judges could form closer relationships with participants, quality of information exchanged was higher, and participants were more willing to talk. Staff rated attendance as high regardless of the modality. Staff felt participant engagement was higher with audiovisual technology than audio-only technology. Our results suggest that staff have concerns about effects of virtual hearings on court participant engagement and ability to form relationships with judges. Courts should address these potential negative effects of virtual hearings. We are concerned that staff perceived participants more negatively when participants used audio-only versus audiovisual technology, because technology access could be associated with participant demographic characteristics. Further research is needed to examine court participant perceptions and outcomes.

Key words: courts; drug; problem-solving; survey; virtual

Some problem-solving courts, such as adult drug courts, veterans’ courts, and mental health courts, provide alternatives to incarceration for individuals arrested for or convicted of drug- or mental health–related crimes.1 These courts mandate treatment for substance use disorder (SUD) and mental health disorders, connect clients to community services (e.g., housing), and monitor program compliance through communication with treatment providers, status hearings, and drug testing.1

Status hearings are a core feature of the problem-solving court model and are typically weekly or biweekly.2 During hearings, judges communicate with each court participant individually, discuss the participant’s treatment progress, personal stressors, and court program compliance, and highlight successes or impose sanctions for noncompliance, as necessary.3,4 Based on status hearings, the court may modify a participant’s treatment requirements.5 Underscoring the importance of these hearings, a meta-analysis found that a higher frequency of hearings is associated with decreased drug-related recidivism among court participants,6 and problem-solving court best practices emphasize the need for frequent hearings at the beginning of court programs.2

The COVID-19 pandemic forced problem-solving courts to adapt their longstanding hearing practices in response to public health concerns and stay-at-home...
orders, including by shifting from a traditional model of in-person hearings to virtual hearings. Despite the importance of hearings in the problem-solving court model and a growing body of research about virtual court proceedings, very few studies have explored perceived effects of shifting from in-person to virtual hearings. More studies are needed, because shifts from in-person to virtual hearings could affect court participants’ intermediate court program outcomes, including hearing attendance, engagement during hearings, and the quality of the client–judge relationship. These intermediate outcomes could affect participants’ final court program outcomes (e.g., program completion). Importantly, problem-solving court program completion predicts whether court participants face criminal trial or incarceration.

The potential effects on court participants of changing the hearing model are unclear. For example, it is possible that adoption of virtual status hearings improves participant attendance by decreasing the logistical demands of transportation to the courthouse. It is also possible that the shift to virtual hearings may also result in new access barriers for court participants, such as the need for reliable Internet, updated technology, or technology skills, which could negatively affect hearing attendance among court participants living in areas with limited Internet coverage and those with fewer financial means or less education.

Additionally, court participants may behave differently during virtual hearings compared with in-person hearings, potentially with reduced levels of engagement and less willingness to speak during hearings. Such behavioral changes could negatively affect the relationship between the court participant and judge, which typically develops over weekly or biweekly hearings. Qualitative research suggests that court participants who have a poor relationship with their judge may be more likely to receive sanctions or be terminated from the program for noncompliance. One study suggests that the strength of the bond between the judge and court participant is associated with the likelihood of participants using drugs during the court program. Therefore, the field needs more information about how the strengths of participant–judicial bonds are affected by the modality of the hearing (i.e., in-person versus virtual.)

To understand the differences between in-person and virtual hearings, we surveyed a national convenience sample of court staff during the COVID-19 pandemic, comparing court staff perceptions of participants’ frequency of attendance, levels of engagement, willingness to talk, and the judge’s ability to form connections with clients during in-person versus virtual hearings. Additionally, we examined court staff perspectives of participants’ use of audio-only versus audiovisual court hearing modalities.

### Methods

#### Ethics

Ethics approval for the survey was provided by Wayne State University’s Institutional Review Board. Survey respondents were provided with an Explanation of Research before survey data collection.

#### Instrument Development

This research is part of a broader Justice Community Opioid Innovation Network (JCOIN) Rapid Innovation Grant (J-RIG) examining problem-solving court experiences during the COVID-19 pandemic. To understand the impact of COVID-19 changes on court staff, the American Academy of Addiction Psychiatry commissioned an online survey that was coded in Qualtrics software. Survey items were constructed based on a literature review and consultation with subject matter experts. The instrument was initially piloted with researchers and practitioners and then revised based on feedback, with the final survey taking approximately 35 minutes to complete.

Survey respondents were asked to rate a series of statements describing in-person or virtual hearings,

### Table 1: Percent of Court and Staff Characteristics (N = 142)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>63.6%</td>
</tr>
<tr>
<td>White</td>
<td>67.6%</td>
</tr>
<tr>
<td>Modality</td>
<td></td>
</tr>
<tr>
<td>Half in-person; half virtual</td>
<td>18.3%</td>
</tr>
<tr>
<td>Usually virtual</td>
<td>42.2%</td>
</tr>
<tr>
<td>Virtual only</td>
<td>39.4%</td>
</tr>
<tr>
<td>Role</td>
<td></td>
</tr>
<tr>
<td>Court administrator</td>
<td>69.7%</td>
</tr>
<tr>
<td>Judge</td>
<td>30.3%</td>
</tr>
<tr>
<td>Court Type</td>
<td></td>
</tr>
<tr>
<td>Adult drug court</td>
<td>45.8%</td>
</tr>
<tr>
<td>DUI court</td>
<td>13.4%</td>
</tr>
<tr>
<td>Family dependency drug court</td>
<td>8.5%</td>
</tr>
<tr>
<td>Mental health court</td>
<td>14.7%</td>
</tr>
<tr>
<td>Veterans court</td>
<td>16.2%</td>
</tr>
<tr>
<td>Co-occurring court</td>
<td>2.1%</td>
</tr>
<tr>
<td>Rural</td>
<td>29.6%</td>
</tr>
</tbody>
</table>

DUI = driving under the influence.
with response options of “Low,” “Average,” “High,”
or “Don’t know or No opinion.” The statements con-
cerned the following: the quality of information
exchanged during virtual status hearings; the quality
of information exchanged during in-person status
hearings; the judge’s ability to form connections
with participants during virtual status hearings; the
judge’s ability to form connections with participants
during in-person status hearings; the participants’
williness to talk during virtual status hearings; the
participants’ willingness to talk during in-person sta-
tus hearings; the participants’ engagement when using
audio and video communication technology; and the
participants’ engagement when using audio-only com-
munication technology. We excluded “Don’t know or
No opinion” responses. See Appendix I for relevant
questions from the instrument.

Data Collection

The National Center for State Courts recruited
a national convenience sample of problem-solving
court staff via e-mail during the third wave of the
COVID-19 pandemic (from November 1, 2020, through January 31, 2021), with monthly reminder
e-mails. Staff targeted for recruitment included those
working in adult drug courts, juvenile courts, mental
health courts, family dependency drug courts, veter-
ans’ courts, and others. No incentive to participate
was offered.

For the purposes of the current study, we only
included responses from judges and court adminis-
trators in the analysis. We anticipated that judges
and court administrators, as court leaders, would
have the greatest depth of information and experience
with status hearings, whereas other court staff
might not attend hearings with sufficient regularity
to form accurate perceptions of the proceedings.
We further restricted our sample to only
those respondents who indicated that their court
met virtually at least some of the time (i.e., we
excluded any respondents whose courts only met
in-person.)

Table 2  Results from Signed-Rank Test for Matched Pairs

<table>
<thead>
<tr>
<th>Variable</th>
<th>In-Person Better, n</th>
<th>Virtual Better, n</th>
<th>No Difference, n</th>
<th>Total, N</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of information exchanged during hearing</td>
<td>60</td>
<td>3</td>
<td>79</td>
<td>142</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Judge’s ability to form connections with participants</td>
<td>80</td>
<td>2</td>
<td>57</td>
<td>139</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Participants’ willingness to talk during status hearings</td>
<td>44</td>
<td>20</td>
<td>75</td>
<td>139</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Attendance</td>
<td>27</td>
<td>14</td>
<td>98</td>
<td>139</td>
<td>&lt; .1</td>
</tr>
</tbody>
</table>

Data Analysis

We compiled descriptive statistics to describe the
sample and computed sign tests for repeated meas-
ures to examine how participants’ ordinal ratings dif-
fered across modalities (i.e., in-person versus virtual;
with response options of “Low,” “Average,” “High,”
or “Don’t know or No opinion.” The statements con-
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exchanged during virtual status hearings; the quality
of information exchanged during in-person status
hearings; the judge’s ability to form connections
with participants during virtual status hearings; the
judge’s ability to form connections with participants
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Results

A total of 142 respondents met our final inclusion
criteria (i.e., court administrator or judge working in
a problem-solving court that had court hearings vir-
tually at least some of the time.) Table 1 shows de-
scriptive statistics for the respondents in the final
sample. Most respondents were female, White, and
court administrators. Nearly half of respondents
were from adult drug courts, and about one-third
indicated that their court was in a rural area.

Table 2 presents results from signed-rank tests
comparing ratings for in-person hearings with virtual
hearings. Respondents provided significantly higher
ratings for in-person hearings compared with virtual
hearings for the quality of information exchanged
during hearings ($P < .001$). Figure 1 shows compar-
isons of these results during in-person versus virtual
hearings. Most respondents agreed that the quality of
information exchanged during in-person hearings
was high, whereas only half felt the quality of infor-
mation exchanged was high for virtual hearings.

Similarly, respondents provided significantly higher
ratings for in-person hearings compared with virtual
hearings for the judge’s ability to form connections
with participants ($P < .001$). Figure 2 shows that most
respondents rated the judge’s ability to form connec-
tions with participants in-person as high, whereas
only about one-third felt the judge’s ability to form
connections with participants virtually was high.

Respondents provided significantly higher ratings
for in-person hearings compared with virtual hearings
for participants’ willingness to talk during in-person
hearings ($P < .05$). Figure 3 shows the ratings for in-person and virtual hearings.

Respondents rated attendance differently for in-person compared with virtual hearings ($P < .10$). As shown in Figure 4, most respondents rated court participant attendance as high regardless of the hearing modality.

Table 3 shows results from the signed-rank test for matched pairs for quality engagement with audio and video communication technology versus audio only. Respondents provided significantly higher ratings for audiovisual communication technology compared with audio only ($P < .001$). Figure 5 shows that approximately twice as many respondents rated participant engagement as high when using audiovisual communication technology compared with audio only.

As a sensitivity test, we also ran the models for judges and court coordinators separately. The above results remained consistent except for the “participants’ willingness to talk” variable. When limited to judges only, there was no difference across hearing types, whereas court coordinators perceived that participants were more willing to talk during in-person rather than virtual hearings.

**Discussion**

The present work is among the first studies to compare problem-solving court staff perceptions of virtual hearings with in-person hearings and to explore potential implications of the transition to virtual hearings for the court participant. Unlike in traditional court settings, judges in problem-solving courts are
expected to be “hands on,” engaging with the participant in what some scholars have described as a parental rather than an impartial manner.\textsuperscript{3,13} Within the pseudoparental relationship between judges and court participants in the problem-solving court model, judges may have biases toward or against different participants, depending in part on the extent to which judges feel they have formed a close relationship with the participants.\textsuperscript{3} For example, scholar Rebecca Tiger\textsuperscript{3} found that when judges perceived court participants as more respectful and deferential (i.e., like a child toward a parent), the participants were less likely to get sanctioned. Such judicial biases are arguably unfair and inappropriate, but they must be studied, because biases could potentially affect longer-term court participant outcomes (e.g., graduation). In our study, we found that court staff were significantly more likely to believe the judge could form closer relationships with

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure3}
\caption{Participants’ willingness to talk.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure4}
\caption{Participant attendance.}
\end{figure}

\begin{table}[h]
\centering
\begin{tabular}{lllll}
\hline
Variable & Audio and Video Better, n & Audio Only Better, n & No Difference, n & Total, N & P \\
\hline
Quality of engagement with audio and video versus audio only & 56 & 7 & 63 & 126 & < .001 \\
\hline
\end{tabular}
\caption{Results from Signed-Rank Test for Matched Pairs}
\end{table}
court participants via in-person hearings compared with virtual hearings. We also found that staff believed that, compared with virtual hearings, during in-person hearings the quality of information exchanged was higher and court participants were more willing to talk. Furthermore, within the virtual court model, court staff felt that participant engagement was higher when using audiovisual communication technology than when using audio only.

Understanding the impact of a lasting transition to virtual court hearings is important, because the shift may be of consequence in ways we have yet to identify. Research has found that problem-solving court staff responses to court participant noncompliance (e.g., continued illicit substance use) are affected by subjective factors, including staff perceptions of participants’ willingness to change their behavior and empathy toward participants’ difficult life circumstances. The transition to virtual hearings may add new subjective factors that could consciously or unconsciously affect court staff responses toward participant noncompliance. For example, a previous study found that court participants seemed more distracted during virtual hearings compared with in-person hearings, as demonstrated by court participants checking e-mail, walking, eating, and driving during hearings. Relatively, staff in that study described problematic decorum during virtual hearings, as demonstrated by court participants’ wearing inappropriate or unprofessional clothing. Staff may also have more difficulty assessing participants’ body language during virtual activities, which could influence staff judgments about the participant. It is important to investigate whether the long-established norms of in-person courtroom demeanor have resulted in impractical expectations for virtual court settings, potentially to the detriment of court participants.

Importantly, within the virtual court model, we found that staff perceived court participants as more engaged during audiovisual communication modalities compared with audio-only modalities. This finding suggests that audio-only hearings may exacerbate disparities in participant outcomes, because individuals living in rural areas and lower income individuals (who are disproportionately likely to be people of color) may be less likely to have the technology and reliable Internet required for high-quality, uninterrupted audiovisual communication. If the disparities in access to telemedicine for people in rural areas attributable to lack of broadband Internet are any indication, similar geographic disparities are likely to prevail when it comes to full participation in virtual court hearings. Audiovisual quality could, therefore, also become an additional subjective factor affecting court staff reactions to participants, and poor broadband access may constitute an objective impediment. For example, a previous study in the trial court context found that poor audio sound quality during virtual court proceedings was associated with negative perceptions of witnesses’ credibility, reliability, and trustworthiness. It is also possible that problem-solving court staff feel more negatively toward court participants who have lower audio sound quality, so there is a need for research to test this hypothesis. In the way that broadband Internet access has been characterized as a social determinant of health, it
may also influence court outcomes that have a profound effect on a person’s life course.

Contrary to our expectations, we found that participant attendance was rated highly by court staff regardless of hearing modality, with 86 percent of staff rating attendance as high for in-person hearings and 78 percent for virtual hearings. The lack of a significant difference in attendance by hearing modality may reflect the high likelihood of imposition of sanctions for missing hearings, regardless of their modality.

Significantly more research from court participants’ perspectives is needed to understand their virtual hearing experiences, because their perceptions of the benefits and harms of virtual hearings may differ substantially from those of court staff. For example, court participants may ascribe significantly greater convenience to attending virtual hearings versus attending in-person, with less disruption to employment and childcare, and with a decreased need for transportation. For example, a national survey of problem-solving court coordinators from 2019 to 2020 found that 32 percent of respondents believed transportation is a barrier to court program participation.5 Even if transportation barriers are not present, participants with young children or who can only take short breaks from work may find virtual attendance more convenient. It is unclear how court participants would weigh these potential benefits over decreased ability to form connections with a judge. For example, court participants may ascribe greater perceived legitimacy to virtual hearings if they believe the court is trying to accommodate their needs and priorities (e.g., by eliminating transportation barriers through virtual hearings.)

One recent study suggests that participants feel more comfortable during virtual hearings than in-person hearings, but they also feel that the judge is less likely to understand them and their case during virtual hearings.8 Combined with findings from our study, it seems that problem-solving courts must develop policies and practices to prevent negative effects of virtual hearings on the participant–judge relationship. Furthermore, it is possible that effects of virtual hearings on the participant–judge relationship could differ by participant characteristics. For example, a previous study found that effects of status hearing frequency on participant outcomes differed by the severity of court participants’ behavioral health conditions.17

Finally, it is important to note that problem-solving courts themselves are not without criticism, as some advocates and scholars argue that they perpetuate systems of mass criminalization for behavioral health conditions18 that should be limited to the purview of noncoercive interventions,19 with particularly negative impacts on minority populations.20 There is also a concern about the potential for the scope of virtual court appearances to expand beyond adjudication in ways that increase the virtual surveillance of participants for compliance with various court-imposed conditions as a form of “e-carcera-21” Therefore, it is important to consider whether more substantial changes are needed to the problem-solving court model beyond basic concerns about hearing modality.

Our study has several important limitations. First, staff perceptions may be inaccurate or biased, because they are based on recollection and shaped by an individual’s attitudes, beliefs, and desires. Nevertheless, collecting data about staff perceptions is important, even if inaccurate or biased, because staff may act in response to their perceptions. Second, it is possible that some judges and court administrators in our study came from the same court, which would overrepresent that court in our sample. Third, although a strength of our study is its national sampling frame, we do not know the extent to which this sample accurately represents the nation’s problem-solving court staff population. Fourth, problem-solving courts include many different professionals working on teams, including clinicians, probation officers, prosecutors, law enforcement, defense attorneys, and other stakeholders. Our study, however, only focused on judges and court administrators. It is possible that results would differ if views of other professionals were considered. Because of our recruitment approach, we do not know the response rate for our study.

Finally, our study measured the perceptions about virtual court hearings held by key actors in problem-solving courts but did not examine their effect on important outcomes, such as graduation rates, recidivism, and the likelihood of being sanctioned. Future work is urgently needed examining the relationship between hearing modality and these outcomes.

Conclusion

Prior research has found that problem-solving courts, such as drug courts, are an effective tool for reducing recidivism and illicit drug use among people arrested for drug-related crimes,6 with hearing frequency as a predictor of court outcomes. Those studies, however, were conducted before the COVID-19
pandemic when all hearings were in-person. Courts are currently making decisions about hearing modalities for the postpandemic era, including whether to return completely to in-person hearings, continue with virtual hearings, or maintain some combination of the two types of hearings. In proceeding with virtual modalities, courts should screen clients for adequate access to the technology necessary to participate, ensure feasible alternatives if they lack access to the technology, and train staff and judges to be explicitly aware of the potential biases that can influence virtual court outcomes. We should also not use virtual courts as a subtle means to increase the intrusion of the court into clients’ lives through virtual surveillance. Collectively, these concerns suggest the need for both specific virtual court policies and training curricula for virtual court proceedings that help participants meet the modality’s challenges and exploit its opportunities.

All evidence points toward the permanence of virtual proceedings as an option in academia, government administration, health care, and our court systems. Indeed, in many cases and for many people, it has become the modality of choice. It is likely that courts in general, and problem-solving courts in particular, will see virtual appearances become an enduring option. Considering the myriad ways this shift can affect what is already an often precarious attempt to ensure people receive a fair adjudication and are given meaningful due process, researching the variables that affect virtual court outcomes should be a priority. Limiting the negative effects of virtual court (and accentuating their positive ones) will be crucial for ensuring just outcomes for the highly vulnerable populations engaged by problem-solving courts.

References
11. Ray B. U01 DA050442-01 (grant). National Institute on Drug Abuse, National Institutes of Health, through the Justice Community Opioid Innovation Network (JCOIN) initiative 2022
APPENDIX I: VIRTUAL COURT SURVEY QUESTIONS

What is your race?

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White
- Other
- Prefer not to answer

What is your gender?

- Male
- Female
- Other
- Prefer not to answer

How do the court hearings occur?

- In-person only
- Usually in-person, rarely virtual
- About half of the time in-person, half of the time virtual
- Usually virtual, rarely in-person
- Virtual only

Which of the following best describes your role within the justice, child welfare, or behavioral health system?

- Judge or magistrate
- Court coordinator or administrator
- Child attorney or representative
- Court or supervision case manager
- Prosecutor
- Defense attorney
- Veterans justice specialist
- Child welfare professional
- Other

What type of problem-solving court, specialty court, or another judicially led program are you currently working with? If you work in multiple programs, please select only one program to report on per survey.

- Adult drug court
- Opioid court
- DUI court
- Hybrid court
- Opioid court
- Juvenile drug court
- Family dependency drug court
- Early childhood court or safe baby court
- Veterans court
- Mental health court
- Co-occurring court
- Community court
- Reentry court
- Homeless court
- Young adult court
- Recovery-oriented compliance docket
- Other pretrial jail diversion program (please explain)

- Other posttrial jail diversion program (please explain)

- Other (please explain) ___________________________

How do you best identify the service area for your court program?

- Predominantly or entirely rural
- Predominantly or entirely suburban
- Predominantly or entirely urban
- Mixed rural and suburban
- Other (please explain) ___________________________