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PSYCHIATRY IN THE DIGITAL AGE (J SHORE, SECTION EDITOR)

Forensic Competency Assessment with Digital Technologies

David D. Luxton[1,3] · Frances J. Lexcen[2,3] · Katharine A. McIntyre[1]

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Abstract

Purpose of the Review We review the application of videoconferencing (VC) to pretrial forensic assessments of competence to stand trial (CST). We summarize the benefits, legal considerations, and reliability of VC evaluations. Based on our experience with VC in forensic settings, we provide illustrations of challenges and recommendations regarding this capability to meet increasing demands for services.

Recent Findings CST evaluations are the most frequent type of forensic mental health assessment within the American legal system. VC can be a reliable method for conducting interviews with most defendants, including those with psychotic symptoms. Videoconferencing can improve the overall efficiency of evaluations while also improving the safety of the professionals involved with the competency evaluation.

Summary VC provides an opportunity to meet the increasing demand for evaluations and improve their efficiency. Forensic clinicians should become familiar with the uses of VC in delivering services so that VC is implemented ethically and effectively.

Keywords Videoconferencing · Forensic evaluation · Competency · Assessment

Introduction

Competency to stand trial evaluations are the most frequently occurring type of forensic mental health assessments within the American legal system. The annual number of such evaluations was estimated at 60,000, based on felony indictment data from the Bureau of Justice Statistics from 1997 and 1998 [1]. This estimate did not account for misdemeanor defendants, and states have seen increases in misdemeanant evaluations since the deinstitutionalization of mental health services [2, 3]. More recent data have shown that court orders for evaluations have increased substantially in many states over the last two decades, placing increasing demands on available resources [4•].

Competency evaluations involve an assessment of a defendant's adjudicative decision-making abilities and the degree to which they may be impaired by the effects of an underlying mental illness or developmental disability. Specific areas of concern for defendants who lack the ability to proceed with their pending charges include deficits to their factual and rational understanding of the legal system and the circumstances surrounding their charged offense, and/or the inability to coherently communicate in a reality-based manner with legal professionals [5].

To obtain the necessary data to assess and integrate the clinical status and legal functioning of a defendant, evaluators must engage in a process that entails use of several sources of information. For example, a review of discovery materials and prior mental health records provides context for the results of a clinical interview and forensic assessment [6]. Given that competency evaluations involve the understanding of how a defendant perceives his or her own legal situation, how any psycho-legal limitations are related to symptoms of "mental disease or defect" (or similar terms) [7], and whether those symptoms can be remediated, evaluation interviews must be conducted with each individual defendant. A written report or testimony is one of the final aspects that are necessary to move the defendant's case through the court system.

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✉ David D. Luxton
ddluxton@uw.edu

[1] Office of Forensic Mental Health Services, Washington State Department of Social and Health Services, P.O. Box 45330, Olympia, WA 98504, USA

[2] Child Study and Treatment Center, Washington State Department of Social and Health Services, Lakewood, WA, USA

[3] Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA, USA

Because the evaluation process is lengthy, it is not surprising that the cumulative cost of competency evaluations is the single most expensive type of forensic mental health assessment conducted [8, 9]. Costs are expected to continue to increase in the future, as the lack of mental health treatment available in the community, limited numbers of inpatient civil beds, comorbid substance use, and homelessness is expected to continue to cause people with severe mental illnesses to be segued into the criminal justice system [10]. Further exacerbating matters is the shortage of professionals who are trained to conduct forensic evaluations [11]. In addition, if the defendant or the evaluator must travel for a face-to-face interview, the costs of secure travel for defendants or travel-time allotments for evaluators can become steep [12••].

The use of videoconferencing (VC) to conduct assessments and consultations within legal and correctional settings is becoming increasingly popular [12••]. In correctional facilities, VC can improve access to care providers for clinical treatment and interventions, while lowering the cost of service [13]. VC is also used by the legal system for pretrial hearings, grand jury proceedings, witness testimony, and sentencing [12••, 14••]. While VC has been less common in forensic mental health evaluations, its use is growing and may provide one of the means to resolve the threats to a speedy trial created by delayed assessments [12••, 15•].

With this article, we review the specific application of VC to pretrial forensic assessments of competence to stand trial. We summarize the literature regarding the benefits of VC capabilities, barriers to implementation, relevant legal considerations, and findings regarding the reliability of VC evaluations. We also provide practical recommendations from the literature and from our experience with VC implementation in forensic settings.

Benefits of VC-Based Evaluations

One of the most noticeable benefits associated with VC is its overall lower operating cost compared to in-person evaluations. While the purchase point of VC hardware and network service can be a sizable investment [16], the price of hardware has significantly decreased over time, making it a more financially practical purchase. Net cost savings associated with VC are primarily tied to the regularity of system use, the degree of efficiency increase, and the cost savings associated with reduction in travel [17–19].

Typically, evaluations are ordered to be conducted in jails/correctional facilities, in the community of the defendant's residence, or in an inpatient psychiatric facility. Travel to these locations can cause a significant delay in the completion of evaluations due to the time required to reach the location of the interview and scheduling problems. In some situations, an incarcerated defendant must be transported by local police or the sheriff's department to a correctional facility within an evaluator's catchment area, which can create additional delay and cost. Videoconferencing, however, allows for evaluation interviews to occur at the location that is most convenient for both the defendant and the evaluator. It also provides increased opportunities for defense attorneys or experts to observe the interview, especially in cases where in-person presence is not feasible [20]. Additionally, a reduction in the time traveled between multiple evaluation locations can increase the amount of time that an evaluator can allot towards interviewing and report writing. Not having to wait for defendants to be transported to a second location can also reduce the amount of time between the assignment and completion of an evaluation. Finally, VC may allow for an evaluator to conduct multiple interviews in one day, which may not be otherwise feasible [14••].

Videoconferencing can also improve the overall safety of the professionals involved with the competency evaluation [12••, 18]. During face-to-face evaluations, defendants can pose a safety risk to those physically present, especially in cases where the defendant is grossly decompensated and/or overtly aggressive. In order to abate this risk, some facilities opt to restrain defendants for the duration of the interview, which can be painful, humiliating, or uncomfortable. Other facilities require evaluations of aggressive defendants to be conducted through less than ideal settings, such as a no-touch interview room or through a cell's pass-through. It is also common for correctional officers or psychiatric floor staff to insist on being present for in-person evaluations where there is a concern for violence, which can raise confidentiality issues. Videoconferencing can eliminate the risk of violence towards evaluators or attorneys, thus supporting completion of the evaluation in the most safe and private environment [14••].

Preference for using VC and overall satisfaction with the capability is another potential benefit. Prior research suggests that while some individuals may be resistant to using VC, both patients and providers report satisfaction with VC telehealth, including in correctional settings [16, 21]. Satisfaction with the VC medium has also been reported by professionals conducting competency evaluations [12••, 22••]. In addition, courts surveyed about their use of VC reported that it facilitated meeting quorums and provided round-the-clock magistrate coverage, thus contributing to satisfaction with the capability [23].

Videoconferencing has also been shown to be an effective option for meeting the demands for juvenile competency evaluations. The option for VC-based evaluations for juveniles was implemented by the Washington State Department of Social and Health Service's Child Study and Treatment Center in 2014, through a clinic that provides services to the entire state. Previously, all juvenile evaluations were done in-person, requiring evaluators to travel by car or airplane to remote locations to assess both in-custody and out-of-

custody youth, unless out-of-custody youth were transported to the clinic by their parents. The VC connections were made to desktops and laptops located in the offices of defense lawyers, probation departments, detention centers, and community mental health centers. The initial resistance to VC assessments included objections by judges and attorneys who were unfamiliar with the process. Eventually, the method became more acceptable as parents and youth advocated for the option of remote evaluation in lieu of trial delays and lengthy trips. As of 2019, the clinic has conducted 18 VC juvenile competence evaluations with charges ranging from misdemeanor to felony offenses. There have not been any challenges to the methodology that required testimony or other communication with the parties or courts.

Traditional Barriers to VC Implementation

Historic resistance to using VC generally stemmed from both the consumers of competence evaluations (i.e., the courts and parties) and the clinicians conducting evaluations. For example, when the field began doing outpatient evaluations, there were clear preferences for inpatient evaluations [24]. Notably, the validity of inpatient versus outpatient assessments continues to be argued in international settings [25]. However, with the introduction of functional assessment instruments, research comparing inpatient and outpatient evaluation results, and increased professional training, outpatient evaluations became more acceptable in the USA [3, 26]. In fact, outpatient evaluations were ultimately found to greatly assist the justice system in protecting the rights of defendants whose right to a speedy trial was negatively impacted by the wait for inpatient services [3].

Courts have also reported issues with the quality of the VC technology, lack of funding for technological improvements, and objections to the methodology by attorneys and judges [16]. In a 2010 National Center for State Courts (NCSC) survey [23], seven courts reported having used VC for more than 20 years, and nearly 20% of respondents did not have objections to implementing VC. Concerns reported by clinicians included the restricted ability to obtain non-verbal client information, difficulties establishing rapport or appropriateness for specific populations, and lack of comfortability with the use of VC technologies [14••, 27]. Improved technological quality and increases in telehealth research have reduced these barriers. Recently, an increasing willingness among professionals to use VC for conducting competency evaluations has largely been motivated by the amassing backlog of competency evaluations and associated completion delays that have generated hearings and class action and civil lawsuits in several states, including California, Pennsylvania, Utah, and Washington [12••, 28, 29].

Legal Considerations

Differences in jurisdictional rules may influence the ability and feasibly of VC for competency evaluations. Luxton and Lexcen [12••] conducted a review of VC use for competency evaluation and did not identify any rules or case law directed specifically to VC as a method of evaluation for competence to proceed to adjudication. Many courts in the USA have established rules and statutes concerning VC (or in some cases telephony), however, for both civil and criminal proceedings.

The NCSC conducted a survey in 2010 on court use of VC with support from the State Justice Institute [23]. The survey, which included 25 respondents that covered their entire State or territory, compiled a list of 771 rules and statutes concerning VC for civil and criminal proceedings. While the survey did not include respondents from all states, it revealed that there are many courts across the USA that allow for the use of VC in court proceedings.

States that responded to the NCSC survey generally provided regulations as to circumstances that were acceptable or unacceptable for the use of audio-video communication devices. Criminal cases often allowed defendants to appear by VC for first appearances, arraignment, bail, and other pre-trial proceedings, usually at the discretion of the court and sometimes depending on the type of offense. In some instances, the VC equipment was required to allow not only for direct communication between the defendant and the judge, but for private communications between the defendant and defense counsel. Law enforcement officers and underage victims of sexual assault were allowed to testify remotely using VC, with some limitations. Documents relevant to VC proceedings could also be transmitted through a variety of electronic means. Juvenile courts allowed VC for many hearing types—including delinquency, incorrigibility, or adjudication—typically with caveats regarding the vulnerabilities of the youth and the agreement of the parties and the court. In many of the descriptions provided by the NCSC respondents, VC was discussed as an alternative to telephonic appearance and deemed acceptable, especially for pretrial criminal and juvenile court proceedings.

Reliability of VC Assessments

The evaluation of adjudicative competence may entail the use of standardized assessment tools in addition to interviews with the defendant. As with in-person interviews and assessments, forensic competency evaluators using VC must demonstrate that they selected appropriate test instruments, as well as appropriate testing and interview conditions during the evaluation. As we noted earlier, the validity and reliability of interviews and tests administered over VC could be challenged during court proceedings. Currently, there are few reports comparing the outcomes of VC competence assessments to

in-person interviews (see, however, Manguno-Mire et al. [22••] and Lexcen et al. [30••]).

Luxton, Pruitt, and Osenbach [31•] reviewed the potential threats to the reliability and validity of psychological assessments conducted over VC and other telehealth technologies, including clinical observations from a remote location, psychometric support for tests and assessments administered remotely, the quality of equipment on either side of the connection, and the interaction between symptoms and technology. Some clinically relevant data (e.g., olfactory impressions of a client, view of the client's entire body with which to gauge psychomotor movements) may go unobserved when using VC [17, 31•, 32]. Eye contact is another clinically relevant variable that could be affected by the VC medium due to small screen size, camera angle, or unfamiliarity with use of the technology. Interactions over VC can be optimized, however, with adequate technology, appropriate room setup, and VC procedure training [31•, 33].

Luxton and Niemi [15•] reported the first pilot VC program for adult forensic competency evaluations in the state of Washington. They noted that several cases during the evaluation involved interviews with persons with active psychotic symptoms that included delusions and possibly hallucinations associated with technology. In these cases, the forensic evaluators reported that use of VC technology did not interfere with the quality of the evaluation. This was consistent with the published telehealth literature, which has scant evidence that patients with psychosis have difficulty with VC or experience any exacerbation of symptoms [27]. Additionally, in forensic competency evaluations psychotic symptoms are assessed to help determine competency to stand trial. Thus, a defendant's reaction to the VC condition can potentially provide a source of additional information about a defendant's mental state that would not occur during in-person interviews, such as ability to problem solve in cases of technological problems and ability to be oriented to novel procedures. Luxton and Niemi [15•] report several cases, however, where audio delay made conversation with defendants that showed signs of disorganized thought more difficult. Therefore, the quality of connecting equipment and the client's symptomatology should be considered prior to the interview. This is especially important in cases where it is known that the defendant presents with thought blocking or latent speech, as these symptoms may be more difficult to identify through use of VC when technological problems occur. Interviewers may wish to consult with collateral sources familiar with the client if clinical observations—such as repetitive psychomotor behaviors or negative psychotic symptoms—were difficult to ascertain during the VC connection. Given the limited research in the area, it remains possible that delusional systems or hallucinations might prove to present challenges related to a defendant's willingness to use and participate in a competency interview using VC, especially when psychotic symptoms are related to ideas of reference associated with broadcast media.

Recommendations for Implementing Forensic Videoconferencing Programs

The successful implementation of forensic videoconferencing programs entails several essential steps. We describe these in this section and provide a summary of our recommendations in Table 1.

Needs and Readiness Assessment

A formal needs and readiness assessment is a recommended first step in determining the requirements for telehealth services [33, 34]. A basic needs and readiness assessment may include the evaluation of current telehealth services, capabilities, demand for services, and service gaps (unmet service needs that could be addressed by telehealth capabilities). It may also include review of regulatory requirements, policies, reimbursement processes, stakeholder impact (e.g., community partners), and standardized data collection needs [34].

As an example, the recent implementation and program evaluation of adult competency evaluations using VC in the state of Washington began with a formal needs and readiness assessment [15•]. This entailed collection of information via a brief survey that was sent to each of the participating jails to assess existing VC capabilities. Initial network tests were also conducted to evaluate feasibility of existing Internet connections. Meetings with jail administrators and other jail staff to garner project support, assess existing protocols, and identify VC room space also occurred. Contractual agreements were established with the jails in order to assure access to equipment and for assurance for data security and privacy, and service agreements. All of these steps were crucial to the success of the program.

Equipment and Infrastructure

Selection and installation of appropriate VC equipment that meets the need is also a requirement. Videoconferencing typically entails a fixed camera and video system (such as those installed in a conference room) or mobile telehealth stations (typically a camera and computer system that can be moved from room to room on a cart). Desktop VC systems use software on a personal computer (PC) along with a webcam, microphone, and speakers (or headset). In some scenarios, mobile devices, such as tablet computers and mobile phones, can be used for VC services [35]. Features that are available with many VC systems include recording capabilities, a camera that can pan, tilt, and zoom, and picture-in-picture functionality to simultaneously view both the patient's and the medical provider's image. In some VC systems, third parties can be invited to join into a secure videoconference, enabling

Table 1 Recommendations for implementing forensic evaluation videoconferencing programs

Essential steps	Components
Needs and readiness assessment	• Assess need for capability (conduct meetings, surveys, and research regarding demand)
	• Assess technology capabilities, needs, and costs
Equipment and infrastructure	• Purchase and install equipment
	• Assess user privacy and data security requirements
	• Develop technical documentation and procedures
Legal and policy review	• Review local statute
	• Review local rules and policies
	• Develop local videoconferencing policies and procedures (when needed)
Training and coordination	• Develop and provide technical training to forensic evaluators, which should include:
	• Education regarding best practices, telehealth interview techniques, and documentation requirements
	• Mock telehealth evaluation sessions
	• Train jail staff and other support staff on technical aspects of telehealth equipment
	• Provide training to attorneys regarding telehealth capabilities

professionals, such as defense attorneys, to participate in the interview from their personal computer [15•].

User privacy and data security are also required considerations. In the USA, Health Insurance Portability and Accountability Act (HIPAA) compliance is compulsory when electronic health data is transmitted and stored by a HIPAA covered entity. It is therefore a necessity to assure that the telehealth equipment, software, and network infrastructure meets HIPAA requirements. Even when VC software may meet basic encryption requirements, it does not mean that the software itself is HIPAA compliant. Encryption, using the full Advanced Encryption Standard (AES), is the recommended standard, and is the specification for the encryption of electronic data established by the US National Institute of Standards and Technology in 2001. Although interactive voice and video communication is not recorded or logged, end-to-end encryption ensures that no intermediate user or system administrator is able to intercept or participate in calls.

Legal Review and Policy and Procedures

It is essential to become familiar with applicable federal and state law as well as local policies regarding telehealth. Luxton and Lexcen [12••] recommend that the benefits and limitations of VC be carefully weighed when determining whether VC is appropriate to a given circumstance. They also recommend assessment of local rules and consultation with courts and attorneys prior to initiating new VC services.

Policy and training should provide the framework for VC forensic evaluation reports. Competency evaluations conducted via VC should include all of the same information that is recommended for in-person competency evaluation reports [8, 12••]. In addition, Adjorlolo and Chan [36] recommend that a section of the report should detail (a) why this sort of assessment medium was chosen; (b) the features of the technology (i.e., transmission type) and their possible impact on the assessment; (c) measures employed to protect data and information generated, stored, and transmitted; and (d) how privacy and confidentiality were assured. This section of the report should explicitly state whether, in the opinion of the evaluator, the use of the VC medium negatively influenced the result obtained and any efforts that were made to overcome these obstacles. Adjorlolo and Chan also note that efforts should be made to execute this practice with the highest possible professional standards as this is the surest way to withstand cross-examination in the adversarial court setting.

Training and Coordination

Conducting assessments through VC requires first that practitioners are proficient in performing competency to stand trial evaluations and writing suitable reports for the courts. Most commonly, this occurs through specialty fellowship programs, continuing education, and/or clinical supervision [11]. Secondly, evaluators must also be knowledgeable in the use of telehealth. Training in this area is of particular importance as without it evaluators may have difficulty developing effective rapport or struggle to adapt to communication style differences that occur in VC interviews [14••].

Due to the relative novelty of VC, it is likely that the vast majority of practicing evaluators did not undergo training in telehealth during graduate or medical school, although it should be noted that some programs—especially those that provide services to rural populations—do incorporate telemedicine into their training (e.g., Alaska Psychology Internship Consortium, Hawaii Psychology Internship Consortium, University of North Dakota Psychiatry Residency, University of Virginia Psychiatry Residency). As a result, professional training tends to most commonly occur through continuing education or employment-based programs [15•, 16, 37].

Quality training programs, at a minimum, provide practitioners the opportunity to be given a basic introduction to VC, disseminate information regarding legal and ethical concerns, and allow for discussions regarding cultural considerations in telehealth. Trainings should also focus on clinical implementation: most specifically its differences from in-person evaluations, recommended conversational style nuances associated with the medium (e.g., allowing time for responses due to audio delay), and VC limitations regarding administering psychological assessments [33]. Luxton and Lexcen [12••] further recommend that all trainings include a review national best practice guidelines that are specific to telehealth, such as those published by the American Telemedicine Association (ATA) and the American Psychological Association (APA).

Implementation of a training program for competency evaluators was described in work by Luxton and Niemi [15•], who developed a VC training seminar and provided employment-based trainings. Training topics included policy review, basic technical setup, troubleshooting procedures, scheduling, processes for initiating and closing VC sessions, data security, safety protocols, and documentation requirements. Volunteer forensic evaluators were also identified and assisted in VC testing, scheduling of sessions, and local training of other forensic evaluators.

When used for the purposes of forensic mental health evaluations, hospital and jail staff who help to facilitate VC will likely require technological training regarding how to use the VC equipment, so that they will be equipped with the skills to resolve problems that can be managed through basic troubleshooting. Jail staff in particular need to be trained on VC procedures at their specific location, such as requirements for transport of defendant/inmates and monitoring the VC equipment [15•].

Training and communication about VC services also needs to be provided to courts and attorneys. Presenting courts and the parties with information about the state-specific implementation of VC in various medical, judicial, and social service agency settings (e.g., [23]) may reduce the resistance to the implementation of the technology. We recommend emphasizing the following benefits when communicating with stakeholders. For courts, there can be quicker turn around. For defense, quicker determination if a serious mentally ill (SMI) client needs inpatient services and a reduction in wait time for competency assessments. For prosecutors, it moves all cases forward more quickly for those who are competent to stand trial and those who are incompetent and in need of restoration.

Conclusions

Because of the ubiquitous implementation of digital technologies and the escalating demand for forensic mental health services, the use of VC for conducting pre-trial evaluations and for other services in jails, corrections, and forensic mental health settings can be expected to increase in the years ahead. As with any technology-driven change, successful acceptance and adoption will depend on preparation of organizations and participants that are involved. The courts, attorneys, forensic evaluation professionals, jails, and social agencies that provide forensic mental health services will need to cooperate to plan and execute reliable, effective, and flexible methods of introducing a new approach to services. Local standards for use of VC may offer guidelines for legal and mental health situations, such as extant statutes, administrative codes, and case law. However, in situations where little or no guidance is available, developing appropriate recommendations and requirements may be necessary. Licensing boards may also become involved with making decisions about the appropriate uses of VC, which could restrict or expand the availability (see, e.g., [38]).

The demand for expedited services—including class action lawsuits—will only increase the pressure for state agencies to seek out resources that facilitate the delivery of mental health services that can withstand the scrutiny of the justice system. Embracing technological solutions through adequate preparation and cooperation across agencies and systems can minimize the uncertainty about the quality of work that intends to protect the civil liberties of vulnerable citizens, support community safety, and assist the courts with their decision-making.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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