



# **GUIDELINES FOR BEST PRACTICES IN PSYCHOLOGICAL REMOTE ASSESSMENTS VERSION I**



**ONTARIO  
PSYCHOLOGICAL  
ASSOCIATION**

**CAPDA**  
Canadian Academy of Psychologists  
in Disability Assessment

**COMPLETED BY THE OPA AND CAPDA WORKING  
GROUP ON REMOTE ASSESSMENT  
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This project was made possible by the hard work and dedication of the members of this committee. It is our intention that this is a living document, and that as a group we will endeavour to update the research and guidance based upon the evidence.

Kind Regards,



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## **Definitions:**

**Remote:** In this document the term ‘remote’ refers to the use of any communication system other than in person, including and not restricted to the telephone, mobile devices, virtual platforms and videoconferencing. This term is used instead of ‘tele’, ‘telepsychology’ or ‘teleassessment’.

**Psychologist** refers to all specialty designations licensed by the College of Psychologists (School Psychologists, Neuropsychologists, etc).

**Psychological Assessment** refers to assessments provided by the range of psychological professionals including those practicing in schools, vocational, clinical, neuropsychological, settings (i.e., Psychovocational Assessment, Neuropsychological Assessment, Psychoeducational Assessment, etc.)

## **Preamble**

This document is intended for various psychological professionals, including those practicing in school, vocational, clinical, and neuropsychology settings, each of whom may use different psychometric measures for various types of assessments. Types of assessment include those that are primarily clinical in nature, diagnosing mental health (such as ADHD, anxiety disorders, mood disorders) and neuropsychological issues (such as dementia, traumatic brain injury, stroke, epilepsy), or assessments that also involve the learning profiles or relative cognitive strengths and challenges of an individual. Assessments can vary in terms of the interpretation of findings and outcome of the assessment, whether it be diagnosis, provisional diagnosis, or description of findings without diagnosis. Clinical judgement and the use of multi-source information are recommended in all components of an assessment. The purpose of this guideline is to provide information to practitioners in order to help them make decisions about the use of a virtual assessment to meet the needs of patients in various settings, with the constraints that those settings may provide, considering the interpretation of findings given the assessment situation (diagnosis, description of symptomatology, provisional diagnosis) of the assessment itself.

The goal of this document is therefore not to provide a position with regard to the use of remote assessment, but rather to outline the considerations to be included in any decision-making regarding either the use of remote assessment in various situations that may vary according to the type of assessment and the interpretation of the findings.

The prevalence of psychological and cognitive sequelae that arises or characterises the vast number of disease states before us as clinicians is multitudinous. As a result, a sizable psychometric test toolbox has been developed and exists at our fingertips to help us conceptualize and ultimately ground our clinical opinions, may that be diagnostic and/or prognostic in nature, in objective evidence-based data. Specifically, psychometric testing allows us to objectively substantiate and articulate the breadth, severity and veracity of subjective reports of symptoms related to psychological, cognitive and somatic impairment(s) in a reliable and hence, valid manner (see Zakzanis, Leach, & Kaplan, 1999). Such actuarially guided clinical judgement can address

important clinical considerations and strengthen clinical and diagnostic conclusions (see Grove, Zald, Lebow et al, 2000). Indeed, in a medical legal forum, the “Mohan” standard in Canada would support what is termed “actuarially guided clinical judgment,” wherein supporting the importance of evidence grounded in objective data with as much validity, reliability and objectivity as possible.

Psychometric testing has typically been delivered in an in-person format, conducted with both the clinician and often a psychometric technician in an ‘office’ or testing space. This can result in limitations related to accessibility and cost. A host of extraneous reasons can preclude a patient from accessing psychological and/or neuropsychological services by virtue of economic, socioeconomic, geographical, or logistical reasons. (Bauer et al., 2012; Crook Et al., 2009). Moreover, by reason of psychological (e.g., travel anxiety), cognitive (e.g., visual spatial memory impairment) and, or, behavioural (e.g., anosognosia) impairment, including the current health related accessibility challenges, patients may be precluded for the very reasons they require psychological, and, or neuropsychological assessment.

### **Current Status of Remotely Delivered or Virtual Assessment and Consultation in Ontario and Canada**

In light of some of the limitations of examiner-administered, face-to-face assessment, the practice of remotely<sup>(1)</sup> delivered assessment has been developing as a method of examination of aspects of psychological and/or neuropsychological impairment using a secure online, synchronous interaction with patients in real-time. The current community health concerns have certainly pushed this assessment platform to the fore. In the context of developing remotely delivered or virtual assessment, and in an effort to understand the current Canadian psychological regulatory policies and procedures on cross-provincial utilization of virtual assessment and consultation platforms, Zakzanis and Orner (2020) sought to undertake an independent research survey so to capture the current position(s) of a wide cross-section of regulatory psychological colleges across Canada, and namely, those areas of clinical psychological practice that tend to commonly intersect as members of a multidisciplinary clinical team (e.g., social work; occupational therapists). Furthermore, they sought to identify areas currently undefined or under review. A representative from the aforementioned colleges were contacted to complete the survey. In total, 70 staff members were contacted via email. Results showed that across respective colleges, considerable variability was noted in terms of the existence of formal written policy. Where policy was noted, direction ranged from idealistic standards to non-specific platform standards whereby regardless of modality delivered, clinicians are expected to practice according to discipline defined ethics (e.g., Canadian Code of Ethics for Psychologists) and that those engaged in virtual assessment and consultation adhere to the same standards (consent, respect, competence, etc.) as those who are not. *See Appendix A for the specific findings.* The findings illustrate variable formal policy statements across colleges and where there does exist policy, variable direction with respect to how clinicians should engage in telemedicine/virtual care.

Since this survey was undertaken, and in recent months, and in response to health authority and government recommendations in light of the COVID-19 virus, The College of Psychologists of Ontario released the following statement on 26 June 2020,

“The last major development directly affecting the majority of members of the College of Psychologists (CPO) were the Chief Medical Officer of Health’s revisions to Directive #2 made on May 26, 2020. This was described in the College’s COVID-19 information for Members - May 27, 2020. These changes allowed for the gradual return to the delivery of non-urgent care and permitted members to begin to plan for the return to in-person services when this was considered necessary and appropriate for patient/patient care. In keeping with the revised Directive, the CPO recommended and continues to recommend, *“that when practical and clinically appropriate in keeping with patient's/patient's best interest, members should provide services virtually rather than having patients/patients receive psychological services in-person”*.”

## **Coming of Age**

The need for remotely delivered assessment existed long before the COVID 19 pandemic. That is, individuals in need of psychological, and/or neuropsychological services without access by virtue of economic, socioeconomic, geographical, or logistical reasons, have had very little access to virtual support. However, some components of psychological and/or neuropsychological assessment are particularly well suited to virtual platforms so to address this problem. Most of the research has been done with virtual assessments taking place in controlled clinical settings and testing sites (Farmer, 2020). A recent study comparing remote and in-person administration of the WISC-V found that the scores for the two methods of administration for the WISC-V were “mostly equivalent and interchangeable. Thus, all the WISC-V normative and psychometric (reliability, validity, utility) research can be applied confidently to the new online, remote administration of the test” (Wright, 2020). This study along with others cited in these guidelines indicate a growing literature related to remote administration of standardized tests.

Testing sites apart from access to the home school have not been a typical practice by psychologists. It is important to address whether the assessment is completed in testing sites or in the home setting, with the requisite equipment. Many families do not have the necessary equipment or are not able to set up the assessment requirements. Internet access may also be problematic. There is a paucity of research that has been done in a home environment with diverse populations. While we recognize that there will be a need for assessments to inform intervention in schools, it is important to address equity of access and ensure that the assessments are completed, taking these aspects into consideration along with clinical judgment regarding the growing validity of the remote assessment. Testing sites with a reliable digital platform, secure internet connection, required equipment and a trained proctor or clinician are necessary.

Psychologists do not typically conduct physical (hands-on) examinations and are not overly dependent on manual manipulation of test stimuli as to measure and understand impairment. However, manual manipulation of test stimuli is necessary for example, for some of the non-verbal subtests on IQ tests, so this can be problematic and so some index scores that have traditionally been helpful in understanding the cognitive profile of an individual are either not available, or there are alternate substitutions, which may involve administering other tests.

The norming for many of the standard tests used by psychologists have taken place with one to one administration, and so using the same norms for remote assessment must be considered in the

context of available evidence (See section titled Literature Addressing Remote Administration of Psychometric Tests). Fortunately, the psychological assessment method is founded on gathering data from multiple sources including and not limited to, (1) an examinee's behavioural presentation, (2) subjective reports (potentially gathered through structured, unstructured or semi-structured interviews and formal checklists), (3) evidence based psychometric findings, (4) collateral interview sources of information, and (5) material contained in the examinee's medical brief and other documents, coupled with (6) knowledge of the research literature as it pertains to various clinical disorders. The point here is that the psychological assessor does not disavow his or her self from *all* sources of data and derive an opinion from psychometric test data alone. Such practice would surely be prone to various mis-interpretive pitfalls. In other words, when providing an assessment, psychologists give careful consideration to each aspect of the assessment method. The power of the psychological assessment methodology lies in the clinician's synthesis of the consistencies and discrepancies apparent in the different sources of information that we collect, rather than relying on one source of data to form opinions. In saying this, however, one should never dismiss the incremental validity that psychometric testing provides. Again, a sizable psychometric test toolbox has been developed and exists at our fingertips to help us case conceptualize and ultimately ground our clinical opinions, may that be diagnostic and, or prognostic in nature, in objective evidence-based data. As also already stated, psychometric testing allows us to objectively substantiate and articulate the breadth, severity and veracity of subjective complaints related to psychological, cognitive and somatic impairment(s) in a reliable and hence, valid manner. Here, it is important to acknowledge that the validity of test findings is dependent on the standardized setting in which a psychometric test was developed and normed, and that any such deviation can compromise the validity of a test score, and thus, diagnostic certainty. To date however, evidence-based research concerning validity of neuropsychology for older adults, summarized by Marra et al (2020), illustrates little variability regarding differences in on-site and virtual assessment performance with many showing no significant differences (e.g., Ciemins et al. 2009; DeYoung et al. 2015; Galusha-Glasscock et al. 2015; McEachern et al. 2008; Menon et al. 2001; Turkstra et al. 2012; Vahia et al. 2015; Vestal et al. 2006) and some studies showing differences (Cullum et al. 2006, 2014; Grosch et al. 2015; Hildebrand et al. 2004, Wadsworth et al. 2016, 2014, Kirkwood et al. 2000). Moreover, some studies illustrate virtual assessments result in higher scores than on-site assessments (Ball et al. 1993; Cullum et al. 2014; Turkstra et al. 2012; Wadsworth et al. 2016). David Marra, Ph.D., Kristin Hamlet, Ph.D., & UF Neuropsychology, University of Florida, Gainesville, Florida posit that,

*“Possible reasons for this variability include limited range of test scores (e.g., Clock Drawing Test), and the timeframe between test-retest assessments, which could be same-day or weeks later. Due to this variability, “others have cautioned against the possible dangers of decreased precision in some settings, such as when testing for mild impairment, interpreting scores close to cutoffs between levels of impairment, or assessing for change by means of serial testing (Hildebrand et al. 2004; Jacobsen et al. 2003; Turkstra et al. 2012).” (Brearly et al., 2017, pg. 175).”*

Accordingly, there does exist preliminary evidence-based research that illustrates the reliability and validity for the reliability and validity of specific psychometric testing with older adults. The research with children in schools is emerging. For example, Wright (2018) found that differences

between mean scores were not statistically significant on one measure of intellectual ability, however, there were larger differences between index scores as well as the full-scale score. The study by Hodge and colleagues (2019) concerning intellectual ability only considered interrater agreement between the psychologist who administered the test and a psychologist who sat with the student during a virtual assessment. Studies are starting to be published showing the comparability between remote and face-to-face administration of test measures (Wright, 2020). At the same time, one need be mindful of methodological differences between primary studies that have examined differences in on-site and remote assessment performance and how one might undertake a remote assessment themselves. Here, various steps must be undertaken to ensure the applicability of this evidence-based research with current clinical practice which is addressed further along in these Guidelines. And whilst efforts continue to contribute to this evidence-based research in an exponential manner, it is important to underscore again, that the psychological assessment method is founded on gathering data from multiple sources, and this should never be lost upon us in the context of a virtual assessment. Moreover, when extrapolating from evidence based psychometric findings in the context of a remote assessment, we need be mindful of multiple principles given that the “research and evidence base for equivalence of cognitive, neuropsychological, and other interactional measures in a remote, online format compared to a traditional, face-to-face format is extremely nascent” (Wright, Mihura, Pade, and McCord, 2020). Of the principles that these authors state to promote best possible practice in the context of virtual assessment, and whilst all principles should be considered collectively, and are reviewed within this document, the principle of widening “confidence intervals” when making conclusions and clinical decisions is most.

*“Ultimately, psychological assessment requires the clinical judgment of psychologists interpreting test scores, including their margin for error, within the context of individual and contextual factors, including presenting problems, diversity considerations and other information.*

*No single test score should ever make a clinical decision for us, even under the most optimal conditions. Psychologists will continue to integrate test data within an understanding of the individual, their background, their context, their culture and their circumstances in order to inform conclusions and clinical decisions.*

*Integrating test data derived from nonstandardized administration procedures broadens the margin of error. It is important to be deliberate and explicit about the broader confidence intervals and potential for errors in the administration process, interpretation and in the write-up of results.*

*Related to confidence intervals, it is important to remember that cognitive and other psychological test data are proxies for underlying abilities, traits, states and functioning. No test score has ever, with 100% accuracy, explained an underlying trait perfectly. This is a primary reason it is important to use a multi-method approach, combined with clinical expertise (Bornstein, 2017).*

*Remember that these test scores and data are not perfect, and at best they have error and are approximations of constructs we are trying to understand about an*

*individual. Therefore, with all the above caveats, use test results collected via telehealth as individual data in a larger picture.”*

Taken from:

<https://www.apaservices.org/practice/reimbursement/health-codes/testing/tele-assessment-covid-19>

## **Onward We Go**

From a recent 2020 decision, *Arconti v. Smith*, heard before the Ontario Superior Court of Justice, the following excerpts provide some useful pointers as we examine how we can move ahead while addressing the “legitimate issues that deserve consideration”.

Here, the ruling judge stated:

*“[19] In my view, the simplest answer to this issue is, “It’s 2020”. We no longer record evidence using quill and ink. In fact, we apparently do not even teach children to use cursive writing in all schools anymore. We now have the technological ability to communicate remotely effectively. Using it is more efficient and far less costly than personal attendance. We should not be going back.*

*[20] That is not to say that there are not legitimate issues that deserve consideration. Technology is a tool, not an answer. In this case, the parties cannot attend in the same location due to health concerns and governmental orders. So, the question is whether the tool of videoconference ought to be required to keep this matter moving or if the mini-trial ought to be delayed further due to the plaintiffs’ desire to conduct an examination for discovery in person.”*

The research suggests that remote assessment can serve as an increasingly important role in the evaluation of a variety of patient populations when there exists a multitude of patients without access to psychological services by virtue of economic, socioeconomic, geographical, or logistical reasons that are not referred, or cannot access, needed services. Quite simply, it is indeed “2020.” Psychologists and neuropsychologists are in a position to respond to the COVID-19 pandemic through research, practice, education, and advocacy (Chenneville & Schwartz-Mette, 2020). We are indeed able to provide psychological services on an ongoing basis using secure online platforms without patients having to leave their homes or, when equipment and other considerations are not present in the home, attending a nearby testing center. Many of our patients now only have access to psychological services, and we are essential to their well-being. In fact, Brearly and colleagues (2017), who provided a systematic review of outcomes of virtual assessment with adult neuropsychology patients and found that:

*“Predominately positive feedback from patients and their families has been consistent across neuropsychological studies where this was assessed, including appreciation for the opportunity to receive specialty care without the logistical*



*hurdles of travel distance (Barton et al. 2011; Harrell et al. 2014; Parikh et al. 2013; Turner et al. 2012). (Brearly et al, 2017, pg. 175).”*

While the tests often used by psychologists in schools and in clinics, such as intellectual, processing, academic, and neuropsychological tests, have not been normed using remote administration (Farmer et al, 2020), the adoption of this method rests ultimately on its appropriate use by clinicians. A necessary requirement for remote assessment is that it is undertaken in a competent, ethical, well informed manner coupled with knowledge of the growing evidence-based research on the reliability of a psychometric test measures in terms of online administration compared to a traditional, face-to-face format so to best meet the needs of the patients and persons we serve.

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## **Introduction**

Remotely delivered services have not yet been widely adopted for the purpose of psychological and neuropsychological assessment in the province of Ontario and across Canada. Across regulatory health professional colleges, considerable variability exists in terms of the existence of formal written policy with respect to how clinicians should engage in telehealth. Zakzanis and Orner (2019) conducted an independent research survey to capture the current position(s) of a wide cross-section of regulatory psychological colleges across Canada regarding the current Canadian psychological regulatory policies and procedures on cross-provincial utilization of virtual assessment and consultation platforms. Their findings illustrate, “variable formal policy statements across colleges and where there does exist policy, variable direction with respect to how clinicians should engage in telemedicine/virtual care” (See Appendix A; Current Status of Virtual Assessment and Consultation in Ontario and Canada for details regarding the study and results). Direction, where it exists, ranges from idealistic standards to non-specific platform standards. Regardless of the modality used, clinicians are expected to practice according to discipline-defined ethics (e.g., Canadian Code of Ethics for Psychologists). Those engaged the practice of telehealth are expected to adhere to the same standards (consent, respect, competence, etc.) as those who are not. In response to health authority and government recommendations in light of the COVID-19 virus, The College of Psychologists of Ontario states, “*that when practical and clinically appropriate in keeping with patient's/patient's best interest, members should provide services virtually rather than having patients/patients receive psychological services in-person.*”

Psychological assessment through remote services meets an obvious need. This need existed long before health authority and government recommendations for social/physical distancing in light of the COVID-19 pandemic. Many patients, because of economic, socioeconomic, geographical, or logistical reasons, are not referred or cannot access necessary psychological or neuropsychological services (Bauer et al., 2012; Crook Et al., 2009). Moreover, because of psychological (e.g., travel anxiety), cognitive (e.g., visual spatial memory impairment) and, or, behavioural (e.g., anosognosia) impairments, patients may not be able to access psychological assessments for the very reasons they require them.

Psychological assessment is well suited to the use of various models of remote administration to address a wide variety of patient needs, such as facing barriers due to restrictions in place during the COVID-19 pandemic. Psychologists do not conduct physical (hands-on) examinations and are not overly dependent on manual manipulation of test stimuli to measure and understand impairment. However, manual manipulation of test stimuli is necessary for example, for some of the non-verbal subtests on IQ tests, so this can be problematic and so some index scores that have traditionally been helpful in understanding the cognitive profile of an individual are either not available, or there are alternate substitutions, which may involve administering other tests. Psychologists are in a position to respond appropriately and effectively to the need for remote assessment through research, practice, education, and advocacy (Chenneville & Schwartz-Mette, 2020). Moreover, according to Brearly and colleagues (2007), “*Predominately positive feedback from patients and their families has been consistent across neuropsychological studies where this was assessed, including appreciation for the opportunity to receive specialty care without the*

*logistical hurdles of travel distance (Barton et al. 2011; Harrell et al. 2014; Parikh et al. 2013; Turner et al. 2012). (Brearly et al, 2017, pg. 175)."*

The psychological assessment method is founded on gathering data from multiple sources including and not limited to, (1) an examinee's behavioural presentation, (2) subjective reports (potentially gathered through structured, unstructured or semi-structured interviews), (3) evidence based psychometric findings, (4) collateral interview sources of information, and (5) material contained in the examinee's medical brief and other documents, coupled with (6) knowledge of the research literature as it pertains to various clinical disorders. Psychologists give careful consideration to each aspect of the assessment method. The power of the psychological assessment methodology lies in the clinician's synthesis of the consistencies and discrepancies apparent in the different sources of information collected, rather than relying on one source of data to form opinions.

There is preliminary evidence-based research that illustrates the reliability and validity for remote assessment, or more specifically, the reliability and validity for remote assessment of specific psychometric testing. The validity of test findings is dependent on the standardized setting in which a psychometric test was developed and normed, and any changes to this procedure can affect the validity of a test score, requiring consideration when interpreting test data. To date however, evidence-based research concerning older populations, summarized by Marra et al (2020), illustrates little variability regarding differences in on-site and virtual assessment performance with many showing no significant differences (e.g., Ciemins et al. 2009; DeYoung et al. 2015; Galusha-Glasscock et al. 2015; McEachern et al. 2008; Menon et al. 2001; Turkstra et al. 2012; Vahia et al. 2015; Vestal et al. 2006). There are also some studies showing differences (Cullum et al. 2006, 2014; Grosch et al. 2015; Hildebrand et al. 2004, Wadsworth et al. 2016, 2014, Kirkwood et al. 2000). Of studies that show a difference, some indicate that virtual assessments result in higher scores than on-site assessments (Ball et al. 1993; Cullum et al. 2014; Turkstra et al. 2012; Wadsworth et al. 2016). With respect to the WISC-V, Wright (2020) found that the scores for the two methods of administration for the WISC-V were "mostly equivalent and interchangeable, and as such all the WISC-V normative and psychometric (reliability, validity, utility) research can be applied confidently to the new online, remote administration of the test".

Psychologists are aware of the need to remain mindful of the variability in studies to date, taking note that, "*others have cautioned against the possible dangers of decreased precision in some settings, such as when testing for mild impairment, interpreting scores close to cutoffs between levels of impairment, or assessing for change by means of serial testing (Hildebrand et al. 2004; Jacobsen et al. 2003; Turkstra et al. 2012).*" (Brearly et al., 2017, pg. 175)." Further, when weighing test data gathered via remote assessment, it is important to consider that the "*research and evidence base for equivalence of cognitive, neuropsychological, and other interactional measures in a remote, online format compared to a traditional, face-to-face format is extremely nascent (Write, Mihura, Pade, and McCord, 2020).*" The authors provide a number of principles to be considered collectively to promote best possible practice in the context of remote assessment. The principle of widening "confidence intervals" when making conclusions and clinical decisions is most germane. Here, and in keeping with this principle the authors note, "*Ultimately, psychological assessment requires the clinical judgment of psychologists interpreting test scores,*

*including their margin for error, within the context of individual and contextual factors, including presenting problems, diversity considerations and other information.*

*No single test score should ever make a clinical decision for us, even under the most optimal conditions. Psychologists will continue to integrate test data within an understanding of the individual, their background, their context, their culture and their circumstances in order to inform conclusions and clinical decisions.*

*Integrating test data derived from nonstandardized administration procedures broadens the margin of error. It is important to be deliberate and explicit about the broader confidence intervals and potential for errors in the administration process, interpretation and in the write-up of results.*

*Related to confidence intervals, it is important to remember that cognitive and other psychological test data are proxies for underlying abilities, traits, states and functioning. No test score has ever, with 100% accuracy, explained an underlying trait perfectly. This is a primary reason it is important to use a multi-method approach, combined with clinical expertise (Bornstein, 2017).*

*Remember that these test scores and data are not perfect, and at best they have error and are approximations of constructs we are trying to understand about an individual. Therefore, with all the above caveats, use test results collected via telehealth as individual data in a larger picture.”*

Taken from: <https://www.apaservices.org/practice/reimbursement/health-codes/testing/tele-assessment-covid-19>"

In the absence of evidence-based research regarding the reliability of a specific test measures in terms of remote administration, compared to an in-person administration, psychologists recognize that it is prudent to widen confidence intervals for the test data they collect. Psychologists and neuropsychologists are also aware that our overall assessment method is founded on gathering data from multiple sources, and remain mindful of this within the context of remote assessment when integrating data from testing with other sources of information. Furthermore, to ensure that remote assessments are valid and credible, neuropsychologists and psychologists should use uniform labels for performance tests (Guilmette et al., 2020).

Psychologists recognize the growing importance of using remote services to meet a variety of patient needs, including assessment and psychometric test administration. The inevitable use of remote services for assessment is also being considered in the courts. In a recent 2020 decision, *Arconti v. Smith*, heard before the Ontario Superior Court of Justice, the ruling judge offered the following with respect to the importance of remote services going forward, “[19] *In my view, the simplest answer to this issue is, “It’s 2020”. We no longer record evidence using quill and ink. In fact, we apparently do not even teach children to use cursive writing in all schools anymore. We now have the technological ability to communicate remotely effectively. Using it is more efficient and far less costly than personal attendance. We should not be going back.”*

Regulatory bodies and the courts increasingly are accepting remote services for addressing assessment needs. Recently, the Inter Organizational Practice Committee (IOPC, 2020) has released a comprehensive set of guidelines and recommendations for teleneuropsychology assessments in response to the COVID-19 virus. A necessary requirement for assessment

conducted over remote services - is that it is undertaken in a competent, ethical, and well-informed manner, coupled with knowledge of the growing evidence-based research, in order to best meet the needs of the patients and persons that psychologists serve. Therefore, The Ontario Psychological Association (OPA) and The Canadian Academy of Psychologists in Disability Assessment (CAPDA) have developed guidelines to assist psychologists in this emerging area of practice. The rest of the guidelines will review informed consent and confidentiality, types and models of remote assessment, a review of technology requirements and remote platforms, special considerations when assessing pediatric and geriatric patients, and in legal contexts. Examples and links regarding literature on specific remote testing and video conferencing platforms will also be provided.

## **Consent and Confidentiality**

*Below are points that one should consider to review with a patient prior to commencing services.*

### **INFORMED CONSENT CONSIDERATIONS FOR REMOTELY DELIVERED and VIRTUAL ASSESSMENTS (Adult)**

*What are remotely delivered assessments?*

Remotely delivered assessments involve the provision for some aspect of the assessment services using telecommunication/virtual technologies that allow for the preparation, transmission, communication of personal health information by electronic means. These technologies may include telephone, mobile devices, and videoconferencing. Assessments may be conducted using a combination of telecommunication/virtual technologies and in-person administration (see Models of Remote Administration below). It is important to explain how telecommunication technologies will be used to conduct a remote assessment visit and to discuss how the remote assessment may have some differences to that of an in-person assessment.

*Expected Benefits*

- Reduces or eliminates in-clinic attendance, or in-person and/or physical contact considerations.
- Increase access to care.
- Increase patient convenience.
- Improved accommodation of some patient special needs.
- Reduce risks related to physical exposure or in-person contact, when using solely telecommunication/virtual technologies (i.e., the need for other measures such as masks, desk shields, physical distance, etc.)

*Potential Risks*

- Standard test administration will be modified, and this can affect scores. Some types of tests are more challenging to administer remotely, in particular tests requiring manipulation of objects, visual images of certain size and quality, among others. This has the potential to reduce completeness of the domains being assessed (i.e., obtaining full scale IQ scores, aspects of perceptual reasoning) and may affect some aspects of the diagnostic conclusions.
- Involvement of a third-party in the remote assessment session (caregiver, guardian, parent, facilitator) may contribute to additional concerns about the impact of observation on performance that need to be addressed.
- Electronic communications can introduce malware into a computer system, and potentially damage or disrupt the computer, networks, and security settings.
- Electronic communications are subject to disruptions beyond the control of the psychologist that may prevent the psychologist from being able to provide services.
- Error may be compounded when remotely delivered assessment procedures are used with people who come from culturally and linguistically diverse populations, require an interpreter during remote assessment, have hearing or visual problems, or have limited experience/comfort with the technology being employed.

- There are risks and consequences from utilizing remotely delivered assessment procedures, including, but not limited to, the possibility, despite reasonable efforts on the part of the psychologist that:
  - the transmission of health information could be disrupted or distorted by technical failures;
  - the transmission of health information could be interrupted by unauthorized persons;
  - and/or the electronic storage of health information could be accessed by unauthorized persons.
  - may result in inequity of service as some families will not have the equipment necessary for remote assessment from home

### *Confidentiality*

- Confidentiality still applies for remotely delivered assessment services and the session will not be recorded without permission from the patient(s).
- The laws that protect the confidentiality of personal health information also apply to remotely delivered assessments. As such, the information disclosed during the course of the assessment is considered confidential, but for situations covered by both mandatory and permissive exceptions to confidentiality, including, but not limited to reporting child, elder, and dependent adult abuse; expressed threats of violence towards self or an ascertainable victim; and where a person's mental or emotional state is an issue in a legal proceeding.
- Electronic communications may be disclosed in accordance with a duty to report or a court order.

### *Equipment Requirements*

Consider relevant points:

- Will need to use a telecommunication/virtual technology, potentially including a webcam or smartphone, during the session.
- Should be in a quiet, private space that is free of distractions (including cell phone or other devices) during the session.
- Should use a secure internet connection rather than public/free Wi-Fi.

### *Expectations*

Consider relevant points:

- Arrive at an agreement on and provide an explanation about, the technology being used including the video-conferencing platform being used.
- Being on time and policies related to cancellation and changes to appointment times.
- The need for a back-up plan (e.g., phone number where you can be reached) to restart the session or to reschedule it, in the event of technical problems.
- Having a safety plan that includes at least one emergency contact and the closest emergency room to your location, in the event of a crisis situation.
- Any interview, tape, film, or photograph made of the patient will be used for identification purposes for the assessment and maintained in the confidential psychological records (if relevant).



*Patient Rights*

The following points may also be discussed:

- The right to withdraw consent at any time.
- The patient will be referred to an alternate professional or service if the psychologist believes that the patient would be better served by another form of service.
- The right to have the opportunity to ask questions regarding the informed consent document and the evaluations.
- The potential risks and benefits associated with any form of assessment.
- The provision of assessment does not necessitate improvement in their condition.

*Informed Consent*

A statement related to informed consent may read in some form as described below:

*I acknowledge that I have read and fully understand the risks, limitations, conditions of use, and instructions for use of the selected electronic communications as described above. I understand and accept the risks outlined above in this consent form, and they have been explained to me orally by the psychologist and/or the psychologist’s staff associated with the use of the electronic communications. I consent to the conditions and will follow the instructions outlined above, as well as any other conditions that the psychologist may impose regarding electronic communications with patients. I acknowledge and agree to communicate with the psychologist or the psychologist’s staff using these electronic communications with a full understanding of the risks in doing so.*

*I confirm that any questions that I had regarding the provision of remote psychological assessments through electronic communications have been answered by the psychologist.*

Your signature below shows that you agree to these terms and conditions.

\_\_\_\_\_  
Patient/Patient

\_\_\_\_\_  
Date

\_\_\_\_\_  
Psychologist

\_\_\_\_\_  
Date

**Sources from:**

APA (March 2020)

TeleNP

COVID19 Webinar (April 2020)

CONSENT TO USE ELECTRONIC COMMUNICATIONS TO PROVIDE TELEHEALTH SERVICES (Date Unknown)

Guidelines For Best Practices in the Provision of Telepsychology (OPA - 2015)

Tele-Health (aka. TelePsychology) Informed Consent Form (March 2020)

## **INFORMED CONSENT CONSIDERATIONS FOR REMOTELY DELIVERED ASSESSMENTS (PEDIATRICS/GUARDIAN/POA)**

**Below are points that one should consider to review with a parent, guardian or power of attorney prior to commencing services.**

### *What are remotely delivered and virtual assessments?*

Remotely delivered involve the provision for some aspect of the assessment services using telecommunication/virtual technologies that allow for the preparation, transmission, communication of personal health information by electronic means. These technologies may include telephone, mobile devices, and videoconferencing. Assessments may be conducted using a combination of telecommunication/virtual technologies and in-person administration (see Models of Remote Administration below). It is important to explain how telecommunication technologies will be used to conduct a remote assessment visit and discuss how the remote assessment may have some differences to that of an in-person assessment.

### *Expected Benefits*

- Reduces or eliminates in-clinic attendance, or in-person and/or physical contact considerations.
- Increase access to care.
- Increase patient convenience.
- Improved accommodation of some patient special needs.
- Reduce risks related to physical exposure or in-person contact, when using solely telecommunication/virtual technologies (i.e., the need for other measures such as masks, desk shields, physical distance, etc.)

### *Potential Risks*

- There are potential risks to remote assessments including but not limited to, interruptions, unauthorized access, and technical difficulties. Either the psychologist or the patient can discontinue the psychological assessment if it is felt that the platform connections are not adequate for the situation.
- It may be necessary and useful for others to be present during the remote assessment other than the healthcare team and provider of the individual being assessed in order to operate the video equipment. These individuals are bound to maintain confidentiality of all information obtained. It is also important to ensure understanding that the person from whom consent being obtained can request the following when nonmedical personnel are present to: (1) omit specific details of the medical history/psychological examination that are considered personally sensitive; (2) ask non-psychological personnel to leave the examination room; and/or (3) terminate the assessment at any time.
- Standard test administration will be modified, and this can affect scores. Some types of tests are more challenging to administer remotely, in particular tests requiring manipulation of objects, visual images of certain size and quality, among others. This has the potential to reduce completeness of the domains being assessed (i.e., obtaining full scale IQ scores, aspects of perceptual reasoning) and may affect some aspects of the diagnostic conclusions.

- Electronic communications can introduce malware into a computer system, and potentially damage or disrupt the computer, networks, and security settings.
- Electronic communications are subject to disruptions beyond the control of the psychologist that may prevent the psychologist from being able to provide services.
- Error may be compounded when remotely delivered assessment procedures are used with people who come from culturally and linguistically diverse populations, require an interpreter during remote assessment, have hearing or visual problems, or have limited experience/comfort with the technology being employed.
- There are risks and consequences from utilizing remotely delivered assessment procedures, including, but not limited to, the possibility, despite reasonable efforts on the part of the psychologist that:
  - the transmission of health information could be disrupted or distorted by technical failures;
  - the transmission of health information could be interrupted by unauthorized persons;
  - and/or the electronic storage of health information could be accessed by unauthorized persons.
  - may result in inequity of service as some families will not have the equipment necessary for remote assessment from home

#### *Appropriateness of Remote Psychological Assessments*

- The psychologist will let the patient know if it is decided that remotely delivered psychological assessment is no longer the most appropriate form of assessment for the individual being assessed.
- The psychologist will discuss options of engaging in in-person assessment if available, if known, referrals to another professional in the patient's location who can provide appropriate services.

#### *Confidentiality*

- Confidentiality still applies for remote assessments and nobody will record the session without the permission from the others person(s).
- The laws that protect the confidentiality of personal health information also apply to remotely delivered assessments. As such, the information disclosed during the course of the assessment is considered confidential, but for situations covered by both mandatory and permissive exceptions to confidentiality, including, but not limited to reporting child, elder, and dependent adult abuse; expressed threats of violence towards self or an ascertainable victim; and where a person's mental or emotional state is an issue in a legal proceeding.
- Electronic communications may be disclosed in accordance with a duty to report or a court order.

#### *Equipment Requirements*

Consider relevant points:

- Will need to use a telecommunication/virtual technology, potentially including a webcam or smartphone, during the session.

- Should be in a quiet, private space that is free of distractions (including cell phone or other devices) to the point that is reasonable to the situation for the during the session.
- Should use a secure internet connection rather than public/free Wi-Fi.

*Expectations*

Consider relevant points:

- Arrive at an agreement on and provide an explanation about, the technology that will be used including the video-conferencing platform.
- Being on time and discuss policies related to cancellation and changes to appointment times.
- The need for a back-up plan (e.g., phone number where you can be reached) to restart the session or to reschedule it, in the event of technical problems.
- Having a safety plan that includes at least one emergency contact and the closest emergency room to your location, in the event of a crisis situation.
- Any interview, tape, film, or photograph made of the individual being assessed will be used for identification purposes for the assessment and maintained in the confidential psychological records (if relevant).

*Patient Rights*

- They have the right to have the opportunity to ask questions regarding the informed consent document and the evaluations.
- The right to withdraw consent at any time.
- They have read (or have had read to them) this document carefully, and hereby consent to participate in the remote assessment under the terms described above.

Your signature below shows that you agree to these terms and conditions.

\_\_\_\_\_  
Patient/Parent/Legal Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Psychologist

\_\_\_\_\_  
Date

Sources From:

Guidelines For Best Practices in the Provision of Telepsychology (OPA - 2015)

Children’s National - Sample Telehealth Verbal Consent (2)

APA (March 2020)

INFORMED CONSENT FOR TELEPSYCHOLOGY - The University of Iowa (Date Unknown)

Binder (2019)

## **Models of Remote Assessment**

Assessment is not a unitary term. Assessment can take place at any time, using any means of delivery, but what is important is that the clinician carefully consider 1) the focus of the assessment; and 2) the interpretation they can provide given their confidence in the assessment methodology and situation. The focus of assessment may, to some extent, indicate the method by which test data is most reliably collected, be it in person or remotely. However, to a certain extent this will be mediated with how the results are interpreted. In other words, even tests that produce the most reliable findings in a one to one situation, can be provided virtually, depending on the confidence of the clinician in the testing situation and on the interpretation of the test findings.

### *Focus of Assessments*

- Clinical assessments focus on examination of a variety of conditions related but not restricted to mental health, mood and anxiety disorders, Attention Deficit Disorders (ADD, ADHD), Autism Spectrum Disorders (ASD), Learning Disabilities, intellectual disabilities, dementia disorders, traumatic brain injury, stroke, epilepsy, etc. In these areas, primarily the interview portion is conducted with the patient, a possible collateral for which consent is obtained to speak to, and may include, a friend, family member, parent, teacher (as appropriate). Gathering of relevant educational, behavioural and mental health history as appropriate, checklist data and observation can be included. Psychometric data is included based upon various considerations, including diagnostic necessity and/or clinical judgement.

### *Interpretation of Findings*

Depending on the certainty of the clinician in terms of the reliability of findings (which will be clearly outlined in the report), test interpretation can result in

- providing a diagnosis;
- providing a provisional diagnosis; or
- providing only a descriptive assessment and perhaps recommendations for follow-up

### **The Remote Context**

When considering which remote assessment model to use, a clinician should strike a balance between the practical/clinical needs of the patient and test validity concerns. It is most important to consider what service is in the best interest of the patient (i.e., immediate clinical necessity versus modified evaluation) and make testing decisions accordingly. When discussing remote assessments, there are three primary models that have been described – Assistant/Technician-Assisted model, In-Clinic Hybrid model, and Direct-to-Home model. A description of each of these models will follow.

Regardless of exact remote model, there are general service requirements, including:

- Computers with consistent and secure bandwidth for both locations
- Cameras and microphones at each site
- Private and quiet room(s)

- Testing materials
- Clear view of the patient and examiner
  - Adequate monitor size, resolution, field of view, and recovery rate
  - Camera mobility useful
  - Useful for examiner to view both patient and themselves

### **1. Assistant/Technician-Assisted Model**

This model is often used in cases where patients are unable to be located at the main site/clinic (in schools, private and office settings) but are able to travel to different satellite/remote sites. The clinician remains at the main office and completes the diagnostic interview portion through a virtual/remote platform. For the testing portion, there is a trained assistant/technician located at the satellite/remote site to help facilitate the evaluation with the patient. This model requires the technician to be properly trained on the various measures that are administered in order to ensure that tasks are administered in the typical standardization. The technician does not remain in the testing room for the entirety of the test session but rather enters and exits as needed to set up and collect test materials and forms or to provide further clarification/guidance as appropriate and needed.

For this model to be successful, these considerations are recommended:

- There should be two cameras attached to the patient/remote site’s computer and working – one camera facing the patient when seated and one camera facing the table directly in front of the patient, thus allowing the clinician to view the patient’s responses.
- Technician should have all required assessment forms and materials ready for administration prior to the patient arriving in the room.
- Check the sound and video quality between technician and clinician before bringing the patient into the room.
- Ensure clinician/technician have each other’s phone numbers to call if assistance is required.
- Advise patient that the technician will enter and exit the room as needed to provide test materials.
- The technician has the capability to scan and upload all written documentation from the session to an encrypted shared folder for the patient to access; they can then shred test forms when they are no longer required.
- Feedback to be provided to patient via remote platform.

The main benefits of this model include:

- Comparable test battery to typical ‘in-person’ model.
- Maintains the standardization of test administration.
- Allows ‘on the spot’ troubleshooting and guidance as needed.
- Clinician can assess a wide range of injury severities and abilities.

The primary limitations of this model include:

- Does not allow for physical distancing measures between technician and patient and must be implemented based upon current health restrictions.
- Requires trained technician to be located at a separate site.

## 2. In-Clinic Hybrid Model

The ‘hybrid’ remote assessment model requires that the patient comes into the main site/clinic (i.e., school, private or public clinic) for psychometric testing but is located in a separate but adjacent room to the clinician/examiner, or at the very least, at a spatial distance from the examiner and direct contact is limited or restricted. In this model the patient has completed the clinical interview via a telecommunication or virtual platform and then arrives to the main site/clinic for psychometric testing only. When the patient arrives at the main site/clinic, they are brought to a room and either, the examiner is in another room and communicates via remote video and audio from an adjacent room and only enters the room with the patient if there are any clinical or technical issues. Alternatively, the patient and the examiner can be in the same room at times for administration of some tests but are spatially and physically separated by a physical barrier such as plexiglass. The patient has all the materials that they will require made available to them in their space and the clinician/examiner presents information and instructions on the other side of the plexiglass barrier. In this model there is little to no physical contact with the patient and exchange of any materials is limited or eliminated.

For this model to be successful, the following considerations are recommended:

- A pre-briefing on testing procedures should be completed with the patient prior to test session (i.e., either during interview or during a pre-testing phone call)
- The interview, as indicated, can be conducted remotely/virtually prior to arriving to the clinic or the interview can be conducted at a physical/social distance either from another room via video and audio or in the same room distanced by a barrier.
- Avoid waiting rooms. Have patients wait in their car and call when you are ready to bring them into the room.
- Can follow public health and ministry of health infection control measures in clinic (applicable for certain viral and infectious conditions as directed by public health or any other relevant health ministry)
- Assessment of verbal tests at social distance or via telehealth in adjacent rooms
- Assessment of tests requiring stimulus materials and/or test forms:
  - Use test publisher-approved digital test stimulus materials when possible (i.e., Q-Interactive)
  - Minimize shared contact of test forms/materials between examiner and patient (e.g., have examiner show ‘demonstration’ items on a separate form than the one patient will use)
  - Clinician should set up test stimulus materials prior to test session and have the patient remove them from provided box or container only when needed
  - Upon completion of test, used materials should be placed in a separate container for thorough disinfecting before using again or dispose of them.
  - Test forms can be placed in folders and only handled by examiners at completion of testing with proper handling measures in place
- Feedback with patient can be completed via remote platforms or at appropriate spatial/physical distance

The main benefits of this model include:

- Stronger test security, better able to ‘control’ test materials.

- Broader number of tests can be administered (when compared to direct-to-home models) since ‘hands on’ materials can be provided and remain on site.
- Ideal for when clinics transition to or from ‘lock down’ as it maintains spatial/physical distancing requirements.

The primary limitations of this model include:

- Patients require a certain level of cognitive and behavioural regulation to manage the testing conditions.
- Not fully remote and requires co-location between patient and clinician/examiner.

### **3. Direct-to-Home Model – Fully Remote**

In this model, the entire test battery is administered via remote/virtual platform where the patient remains in their home and is assessed by the clinician/examiner from the main site. This model requires the clinician and patient to use videoconferencing platforms that allow screen sharing, reliable camera/microphone capabilities, and session recording (if required by clinician to record responses – must be conducted according to confidentiality agreement). Private rooms on both ends will be necessary.

For this model to be successful, the following considerations are recommended:

- Clinician’s office should complete a ‘test run’ on a previous day with the patient to ensure technology set-up is sufficient
- Clinician should complete a pre-briefing about test procedures during the interview or a separate phone call
- Ensure patient has adequate set-up at home:
  - Adequate bandwidth
  - Able to access telehealth platform
  - Determine/document screen size (preferably a desktop/laptop, at minimum a tablet, avoid phone or smaller tablets such as iPad Mini)
  - Quiet, secure, well lit room
  - Mobile phone on silent to reduce distractions. If patient has home phone, ask if it can be silenced or picked up by someone else in the home if it rings
  - Explain no recording of session or screen capture
- Limit test usage to ones that can be administered: verbally without manipulatives; through screen share of digital stimulus materials; presented through typical stimulus booklets/materials in a way that matches standardization as much as possible; and that do not require any written output from the patient since this material cannot be controlled and violates test security
- Feedback is provided to patient via remote/virtual/telecommunication platforms

The main benefits of this model include:

- Services are provided directly to home, without the need for the patient to be on site (fully remote) thereby also eliminating the need for travel.



The primary limitations of this model include:

- Limitations to the types of tests that can be administered (i.e., verbal cognitive tasks only, tests without manipulatives or written output due to test security issues).
- Test security concerns if there is some form of capture of the stimuli.
- Concerns related to the environmental factors that can hinder test validity (e.g., distracting noises in patient’s home, other family members present in close proximity, pets, etc.)
- Requires patient to have a quiet separate room with necessary technology (e.g., a quiet space with required computer/laptop/camera/microphone, etc.)
- Limited evidence to support presentation of stimulus materials up on screen as opposed to flat on table
- Limited guidance if confusion is present
- Internet connection issues
- Equity issue if technology and internet cannot be made attained

### Comparison of Models

	<b>Technician-Assisted</b>	<b>In-Clinic Hybrid</b>	<b>Direct-to-Home</b>
Location	Clinician located in clinic/home; patient & technician co-located in clinic	Clinician and patient located in same clinic but separate rooms or spatially/physically distanced (e.g., at different ends of a long table, plexiglass barrier, etc.)	Clinician located in clinic/home; patient located in home
Restrictions to Test Selection	Minimal	Some	Most
Travel Requirements	Both clinician and patient need to travel to separate sites	Both clinician and patient must travel to same site	None (assuming clinician has sufficient home office set-up)
Meeting Social Distancing Requirements?	No	Yes	Yes
Cognitive/Sensory /Motor Requirements of Patient	Minimal	Some	Significant
Trained Technician Required?	Yes	No	No

**Pandemic practice recommendations including safety and hygiene are included in the Return to Practice Recommendations from Public Health, the Ontario Psychological Association (OPA), the Newfoundland and Labrador Psychology Board. Here is a link to those recommendations:**

<https://www.psych.on.ca/getattachment/Policy-Public-Affairs/OPA-Guidelines/Information-for-re-opening-of-clinics/Clinic-Reopening-Updated-June-17-2020.pdf.aspx?ext=.pdf>

### **Summary**

This review of assessment models is intended for psychological professionals, including those practicing in schools, other institutions, private and clinic settings, each of whom may use different psychometric measures for various types of assessment. Clinical judgement and the use of multiple sources of information are recommended for a comprehensive assessment. The psychometric data represents one source of data to be used in an assessment, and clinical judgement is required to determine which sources of data inform a resulting diagnosis or set of conclusions. The purpose of this document is to provide information to practitioners to assist with making decisions about the use of various remote/virtual assessment procedures to meet the needs of patients in various settings, with the constraints that those settings may provide, considering the purpose, goal and outcome (diagnosis, description of symptomatology, provisional diagnosis) of the assessment itself.

A variety of models exist for the delivery of such assessment services and clinicians should be prepared to offer different models to ensure access to services for patients with different abilities, medical conditions, and testing needs. Preliminary evidence demonstrates some equivalence between face-to-face and remote/virtual delivery of many, but not all, common cognitive tests. Clinicians must use their own judgement and discretion in balancing safety and clinical test data validity when determining which model best serves the individual patient. The purpose of the overall assessment should also be considered when determining the model. For providers attempting the aforementioned testing models, a myriad of potential challenges exist, with heightened responsibility on the clinician for: maintaining test security; maintaining conditions of standardization as much as possible; ensuring maximum test data validity; and ensuring no mis-interpretation or over-interpretation of abnormal or impaired test findings. Reporting of test results must include a description of the testing model and how, if at all, it affects standardization and interpretation.

**(Source: INS Webinar (April 2, 2020) Teleneuropsychology (TeleNP) in Response to COVID-19: Practical Guidelines to Balancing Validity Concerns with Clinical Need)**

## **Technology Requirements**

There is no simple one system fits all approach when looking at technology for performing assessments remotely. This document is not meant to propose any specific technologies but will serve as a starting point to help you to think about the technologies that would be best to serve both the clinician and your patient. The goal is also to provide commentary on the minimum requirements that one should consider as being acceptable when performing such an assessment. Where possible, recommended Best Practices commentary is provided.

A clinical assessment is typically divided into several discrete parts which includes direct patient (e.g., patient interview, collateral interview, administration of tests and measures) and indirect patient (e.g., file review, analysis of data, report writing) involvement. This section focuses only on direct patient interactions.

The need for the use of specific technologies may differ for different parts of the assessment process. For example, one may be able to perform a clinical interview via telephone with or without the use of video capabilities. Yet, one cannot administer many cognitive, academic, or projective tests without the presentation of stimuli through a video platform.

### **Technology Requirements**

#### **Clinical Interview with a Patient or Collateral Resource or when performing a Feedback Session**

At minimum, one may be able to perform a clinical interview by telephone, cellular phone, or using any audio only technology. The benefit of the telephone/cellular phone approach is the simplicity of it. Almost everyone one has access to a telephone and there is virtually no training that would be required by an individual of any age to use a phone. Phone technology is reliable, (e.g., do not have dropped calls) and typically has a fixed cost. The disadvantage of a phone only interview is that one is unable to see the person they are talking to. Unless you are familiar with their voice, there is no way to authenticate the identity of the person with whom you are speaking. As a psychologist, the way that a person physically reacts is often as important (or at times even more important) as what they say. When using a phone only approach, one misses out on all the nonverbal aspects that would be available when one could see the person they are assessing (for example, seeing anger, irritability, sadness, or surprise on the person's face) or whether the person is even attending to the discussion (i.e., are they focusing on the conversation or multitasking while interacting with the psychologist).

#### **Use a video/audio system when performing Remotely Delivered Clinical Interviews/ Collateral Interviews or when providing Feedback to a patient.**

This allows for the clinician to both see and hear the patient. One must confirm, however, that any technology being used is secure and HIPAA compliant. HIPAA guidelines require that any software transmitting protected personal health information meet a 128-bit level of encryption, at a minimum. For example, using Skype or Facetime although at least one of these technologies is prevalent on virtually every cell phone, they should not be used. It is also recommend that any system being used have servers that are based in Canada rather than located in a different country as that country may have different laws around privacy and how the data could be used. As

such, one may consider that any system in which the servers are not based in Canada can be deemed to not be secure.

Rather than comment on the size of the screen that one should use when performing interviews or providing feedback, when one is using a smartphone, tablet, laptop, Chromebook, or desktop computer, the focus should be on being able to see and hear the person who is “across from you”.

*Technology Requirements when administering self-report or third party reporting clinical measures versus cognitive, academic, vocational, social-emotional measures (i.e., tests that are administered by a third party and involve an interaction between patient and psychologist/psychometrist)*

In this section a differentiation is provided between self-report measures or any measures that can be completed by an individual without involvement from the examiner (e.g., MMPI/PAI/Connors/any self report questionnaires) and tests that are administered by the psychologist (i.e., tests that require administration in order to be completed (e.g., WAIS-IV/Woodcock Johnson/WIAT).

When completing self-report questionnaire/measures online, the size of the screen is likely to be less important and one could feasibly administer the measures using a smaller screen. However, this would depend, in part, on the system used to administer the specific measure. Some systems will present the patient with a single question at a time whereas other systems present a questionnaire as a page at a time which would then be completed by the patient. The size of the screen will therefore become more of an issue if there is more information being presented. The goal is to minimize the requirement for a patient to have to zoom in on the pages or have to navigate the screen in order to be able to read the various items. **The practitioner should test each measure that they plan to administer on various devices in order to determine the minimum acceptable screen size.**

When administering tests that involve presenting stimuli, we advocate for the use of a larger screen such as that which is present on a laptop/chrome book or desktop. **It is likely a good idea to consider a screen that is no smaller than 9.7 inches (measured from the top left corner down to the bottom right corner).** Any screen that is smaller (e.g., phone, some tablets) may make it difficult for the patient to clearly see the stimulus. This is consistent with the recommended size suggested from various test developers.

When administering tests (e.g., WAIS-IV), there are multiple approaches that can be used. These approaches involve thought regarding the platform being used as well as the method of administration. One must consider the fact that all test stimuli are protected by copyright. While at least one test publisher has made test stimuli available for screen sharing through their portal, other test publishers have not taken this approach. Thus, one can still administer tests by using a document camera. In essence, a document camera is akin to an overhead projector in that one places material that one wants to display on a flat surface and the document camera will then present it to your patient. There are several types of document cameras available and it is suggested that you research the various models carefully. In addition, one must ensure that the platform being used allows for multiple cameras (i.e., the document camera as well as the camera that you use for the patient to see you) and/or screen sharing.

[http://telehealthtechnology.org/toolkit/introduction/Pearson website](http://telehealthtechnology.org/toolkit/introduction/Pearson%20website)

### Hardware and Software Requirements

Some considerations for minimum requirements that one should consider when conducting remote assessments are suggested below. One should also take into account the minimum requirement for both the clinician and the patient as this can have an effect on the ability to conduct a session.

#### *Hardware (Minimum Recommended Requirements)*

Depending on the how the assessment is being conducted, different hardware will be required, as discussed above.

- Phone: There are no minimum requirement for the use of a phone. If using a cellular phone, keep in mind the usage limits (e.g. amount of talk time limits) and make sure you monitor the battery levels on your phone. Phones that are several years old may have a significantly reduced talk time due to having older batteries. We recommend that you always have a means of plugging your phone in when using it for clinical use. In addition, we also recommend that you ask your patient to also ensure their phone is fully charged and that they have access to a phone charger, if needed.
- Tablets: Both iPad and Android tablets are supported by most video conferencing platforms. For assessment, one should have a 9.7” screen or greater. If using an iPad, avoid using iPad minis as they do not meet this specification. For specific system requirements, you will need to check out the different system provider requirements (Appendix 1).
- Laptop/desktop: A laptop can be easily moved from room to room whereas a desktop typically remains in one location. Either system should work equally as well. One should consider the screen size, camera quality, microphone/speakers, etc. when choosing a laptop/desktop. There may be a faster performance on a PC compared to an iPad, and this should be considered when administering cognitive tests (Stricker et al., 2019).

### Operating Systems

If using a smartphone, tablet, laptop, or desktop, it is important to ensure that both administrator and patient have their operating systems up to date including all security updates. The following provided links to resources on how to ensure your system is UpToDate.

- Windows 10
- Mac OS
- IOS
- Android
- Chromebook

### Accessories

The following are common accessories that one may consider using with the primary device when carrying out an assessment. Consideration of minimum requirements when using them are provided.

- Camera: Cameras can be integrated into the device or and be an external. The examiner should have a camera with a resolution of 720p at the minimum. This will ensure a high quality image of the examiner for the patient. Some cameras are wide angle which allow for a greater field of view. This can be helpful when working with multiple people to ensure they all fit within the screen.
- Microphone: This too can be built into computers or be added as an external device. It is important for the microphone to be tested to ensure that one can hear the full range of the human voice. To ensure that all 44 phonemes are clearly represented, one could test their microphone by recording one of the 10 Harvard Sentences Lists which is available at <http://www.cs.columbia.edu/~hgs/audio/harvard.html> and then play it back. If all 10 sentences are clear, then the microphone you are using is sufficient for use for an assessment. A concern for both integrated and external microphone is that they can often pick up background noise. Some external microphones will have noise cancelation features that will minimize background noise. If background noise is of concern, the use of a headset with an integrated microphone may help.
- Speakers: Having good quality speakers is essential for remote assessments. Poor quality speakers limit the overall audio range that is produced and can add acoustic artifacts that can make it hard to understand what is being said. Having a speaker that has an audible sound spectrum from 20Hz to 20KHz is recommend. This spectrum of audible sound will ensure that you cover human voice acoustics. However, when using speakers, one must also take into account the possibility that other people in your environment may be able to hear the conversation. Speakers with a volume control and the ability to change the base may be desirable in order to improve privacy.
- Headset: Headsets may combine both speakers and microphones into one device which also improves privacy. All the considerations that one needs to make for both a good microphone and for speakers is also applied when choosing a good headset. One advantage for the use of a headset is that headsets can help reduce audio feedback (i.e., the microphone picking up the sounds from the speakers) and also serve to reduce background noise. **When using headsets for an assessment, it is recommended that you use a wired headset.** Wireless headsets can lead to degraded audio as they use compression algorithms to transfer the audio signal between the computer and the headset. Having a wired headset will not only provide you with higher quality audio, it can also prevent disruptions to a session if the headset loses its connection to the computer or runs out of battery power.
- Dual Monitors: Having two monitors to perform a remote assessment is not mandatory however it is definitely ideal. By having two monitors connected to your computer your desktop becomes extended across two screens. The examiner can have one monitor with the video conferencing program and have the test materials that are being shared with the

patient on the other monitor. Dual monitors allow for more visual space and make it easier to work when you have multiple programs running simultaneously.

- Mouse: Use of an external mouse is recommended to make the navigation easier.
- Wi-Fi/hard wire/cellphone data: It is important to keep in mind how the device is connected to the internet. This can be a weak point in a set up.
  - *Hardwired*: Hardwire refers to the fact that an ethernet cable is connected between the computer and the router or modem that is then connected to the telecom provider. A hardwire connection is always superior to a wireless connection because it is more stable and generally allows for higher speeds.  
**When possible, try to use a hardwire connection.**
  - *Wi-Fi*: Wi-Fi is a wireless networking technology that allows devices such as computers, mobile devices, and other equipment to connect to the Internet. A computer or device is connected to the router or modem wirelessly. Most modern devices are Wi-Fi enabled. Wi-Fi gives the advantage of easily moving around an environment. The drawback can be on bandwidth and stability issues leading to loss of signal or a poor-quality signal. Wi-Fi connections are much more susceptible to interference from other devices that are nearby (such as a microwave) and if there are several people on the same connection.
  - *Cellular data*: cellular data uses data from your cell phone plan. The primary issue with using cellular data is that one typically had a limit on the amount of data available as part of a call phone plan and there are additional costs once you reach your limit and these costs add up quickly. Video communication uses a lot of data so please be aware of the risks associated with using this approach to connect with a patient. Typically, when using cell phone data, one would create a Mobile Hotspot between their phone and their computer although a cellular modem can also be used.
  - *Bandwidth*: Many remote platforms have a minimum bandwidth requirement. Please check to ensure that you meet these requirements. With bandwidth, more is always better. Faster bandwidth will allow for higher quality video and sound and less disruptions or pauses when you communicate. One way to check your bandwidth is by using Speedtest.net (<https://www.speedtest.net/>). It is recommended that you have your patient conduct a speed test prior to booking the remote assessment.
- Document camera (multi camera setup): Some Video Conferencing platforms allow for multiple camera support (e.g., two or more webcams). If this is the case, clinicians can also add a document camera which can be used to present a stimulus book, a response booklet, or anything to the patient. Having a document camera provides the clinician with additional flexibility to use tests that may not be in a digital format. As noted above, many test publishers will not permit for the scanning of their copywritten test material. The use of a document camera prevents this from occurring as there is no permanent storage of the image.

## **Review of Remote Platforms**

There are many different conferring platforms available and while we do not suggest any specific platform, we do provide some comment regarding functionality that may be beneficial and which you should take into account when choosing a platform. You may also choose to subscribe to more than one platform, as there are times when one system may be offline or experience technical issues which makes it difficult to get a consistent connection to your patient.

*Dynamic Responses to Bandwidth* - This refers to the idea that a platform will automatically downgrade the quality of the connection depending on the available bandwidth. Usually, the system will try to maintain a consistent connection at the best available quality but at times it will degrade the quality if there is a bandwidth issue. This may result in poor quality of video and/or a lag between the video and audio (i.e., the picture and sound may be out of sync or there are lags in the video in that the video appears to stutter. This becomes a significant issue when presenting test materials remotely, especially if there is a timing aspect to the tests. One should ask the patient to perform a speed test prior to commencing a virtual assessment.

*Screen Share* – If you want to present any materials to your patient then screen sharing is required. Most platforms now have this as a standard option but there are differences in the ease of use and how the material looks to the patient. It is suggested that when you test out a platform, you connect to a second device that is nearby so that you can see how the presented material looks to the patient. For example, there is at least one platform which superimposes the name of the document being shared and this may in fact block out part of the material being presented. In addition, some systems include too many controls and buttons on the screen which may interfere with the shared screen.

*Requirement to Download an Apps versus direct access through a weblink* – App based platforms usually allow for greater functionality and versatility but require the patient to download an App. It is recommended that you or someone in your practice set up a time with your patient to walk them through the installation process and to ensure that the app actually works. Platforms that allow for direct access without downloading an app typically work on specific browsers which may be an issue if your patient does not have one of these browsers on their computer. This is another reason why you may also choose to subscribe to more than one platform.

### **Security**

Any platform that you choose must be HIPPA compliant. As noted above, one should strive to use a platform in which the servers are based in Canada. You should also attempt to choose a platform that does not have recording or screen shot capabilities within it. That said, one should be aware that anyone can easily take a screen shot of what is presented on screen regardless of the platform or device being used. In addition, there is an abundance of software that can allow a user to record any video that appears on screen.

*Waiting Room* – Some platforms have a waiting room where a patient can wait until you permit them to enter the session. It is advisable to use this feature as you have full control over your



“office” and can allow only those who you permit to enter. Some systems allow you to “lock your room” to ensure privacy so that no one else may enter.

*Single versus Multiple patient* – Some platforms may limit the number of patients who may connect simultaneously. Especially in cases when you are working with groups this feature should be confirmed in advance.

Ability to access the platform via multiple system (e.g., IOS, Windows, Android, MAC OS, Chromebook) – most platforms will operate across systems but this should be confirmed in advance. Also, one should confirm whether older operating systems are supported. For example, may people still use Windows XP and Windows 7 or older versions of MAC OS.

Direct links to Session versus access through a calendar – Some systems require you to schedule an appointment and to connect to your session by first logging into the platform’s calendar whereas other system let you connect directly to a session without any calendar involvement. The former method is somewhat more restrictive in that you cannot simply start a session, but you must first create an appointment. However, this system also reduces the risk of double-booking appointments. Some systems will also integrate into practice management software that you may already use in your practice.

*Access to Support* – Some systems have only online support whereas others allow you to call a person and get technical support. The latter is more efficient if you have a technical problem during a session.

### **Aspirational Options**

At this time, the following options do not appear to be available but would be beneficial should they become available.

- When sharing screen, the ability to actually see what the other person is seeing on their screen. What you share on screen may not always look exactly the same as what you see on your screen. By having a small window that displays the screen share, you can confirm that they are seeing things exactly as you want them to.
- The ability to block screenshots or screen recording would be a desirable option as this will serve to further protect copyrighted material from getting into the public.
- The ability to cast a device to another screen. One may choose, for example, to use a larger screen, such as that on a television. Casting enables one to send the video to this other screen
- The ability to ensure that the screen is "maximized" on the patient’s side. Especially when administering tests, one would want to ensure that the patient has their screen maximized so that the stimuli are presented as intended and not, for example, on a much smaller scale because the patient has a small window for the screen share.
- The ability to get real time data regarding the speed and quality of the connection.
- The ability to get a list of the technologies used by your patient.

## **Test Platforms**

Several test publishers have quickly adapted to allow for remote assessments whereas other publishers have existing on-line platforms. The following reflects several of the currently available platforms. This is not meant as an exhaustive list as new platforms are being developed. Please note that some systems allow for remote administration whereas others are simply used for scoring of materials that are completed as part of an assessment.

### Cambridge Brain Sciences (CBS)

- CBS Health: <https://www.cambridgebrainsciences.com/>

### CNS Vital Signs

- CNS Vital Signs Remote Testing: <https://www.cnsvs.com/RemoteTest.html>

### MHS

- MHS Online Assessment Center+ : <https://assess.mhs.com/>

### Riverside Assessments

- Woodcock-Johnson IV: <https://www.wjscore.com>

### NIH Toolbox

- Health Measure Toolbox: <https://www.healthmeasures.net/explore-measurement-systems/nih-toolbox>

### PAR

- PARiCONNECT: <https://app.pariconnect.com>

### Pearson

- Q-Global: <https://qglobal.pearsonclinical.com>
- Q-Interactive: <https://qiactive.com>

### Western Psychological Services (WPS)

- <https://pages.wpspublish.com/telepractice-101>
- <https://platform.wpspublish.com/account/login>

## **Patient Room Set Up**

To ensure an accurate assessment, having the patient in a quiet room free of distractions is best practice. For many, this may be their bedroom or another room in their house. It may be worthwhile to ask the patient to take you for a quick tour of the room in which they are in to determine if there are any distractions that may affect the session (e.g., tv, radio, other computers or screens) and to ensure that no other individuals are present without your knowledge. You may choose to also do the same to help orient the patient to your space and to further build rapport.

Prior to the commencement of your session, your patient should be asked to inform those in their home that they should not be disturbed and to possibly place a Do Not Disturb sign on the door indicating that others should be quiet. If the patient has dependants, you may want to ask them what the arrangements were made to ensure that their dependents do not disrupt the assessment.

Your patient should also be asked to tell others in the home to minimize their use of the Internet. Heavy bandwidth use may have an effect on the quality of the session. Thus, other virtual meetings by others in the household as well as watching movies via a service like Netflix and online gaming should be minimized. Ideally, the patient should be sitting at a desk with the computer or tablet propped up in front of them. Ask the patient to move their screen if needed so that they are in the middle of the screen. Any additional testing items such as paper and pencil, response books, or other items that may be required for the assessment should be discussed with the patient in advance. You do not want your patient to be looking for items during the assessment. To also help ensure a smooth running of the session, provide breaks when appropriate so that your patient can do to address any household factors as this will serve to minimize distractions. In addition, some find it more tiring to sustain attention when on a video conferencing platform so more frequent breaks may be required than one would typically provide in an in-office assessment.

Before the assessment begins, go over the protocol for what should happen if a connection is lost. A typical protocol would be to have the patient reconnect using the same connection link within a few minutes. If after five minutes you are not been able to re-establish a connection through the video conferencing system, then the clinician should call the patient by phone. At the beginning of your session, you should review these procedures and ensure that you have the correct phone number if you must call them.

Also remember professional dress code. Though for the majority of the time only the upper half of your body will be shown on the screen, you never know when you will need to stand up. **To avoid awkward moments, come to the remote assessment dressed as if were to see the patient physically in your office.**

## **Test Security**

Maintaining test security is vital to ensure the validity and reliability of assessments. The following include statements and policies regarding test security.

APA ethics/ test security in age of technology

<https://www.apa.org/science/programs/testing/test-security-faq>

Pearson legal policies

<https://www.pearsonassessments.com/footer/legal-policies.html>

Pearson test security

<https://www.pearsonclinical.ca/en/legal/legal-policies.html>

PAR position on security of tests

<https://www.parinc.com/IP-Postion>

PAR during COVID-19

<https://www.parinc.com/Using-PAR-digital-assessments-during-the-COVID-19-crisis>

## **Special Considerations and Populations**

### **Patient Considerations (Impairments, Behavioural Issues, Technological Skills/Competence)**

- In all populations, assessing the patient's ability to engage with the testing procedure is important.
- *Behavioural Considerations:* Assess the safety of one-to-one engagement; the ability of the patient to be compliant with considerations provided regarding remote assessments; evaluate the need for the presence of another person to be present to provide assistance and consider the impact on the data of having another person present.
- *Impulsivity Considerations:* Assess the risks related to the potential for physical contact or if the patient handles any manipulatives improperly; evaluate the length of time the patient can work either remotely or one-to one; consider strategies that may be required to slow down the patient or to keep them focused in a remote session or in a one-to-one situation.
- *Autism Spectrum Disorder (ASD) Considerations:* Does the ADOS need to be included for a reliable assessment in the particular situation? If not, then obtain information from interview, behaviour observation (remote or in person) as well as collateral information, work samples, etc. Consider if an in person assessment can be conducted safely considering the need for Personal Protective Equipment (PPE) or the need to have another person present. Is a provisional diagnosis sufficient to allow for appropriate treatment provisions?
- *Cognition:* If diagnosis requires psychometric data then consider the reliability of remote assessment tools that are available. Consider the appropriateness of your patient for participation in remotely delivered services – level of cognitive functioning and the technology being used; presence of behavioural issues and relative impact on assessment process. If appropriate to proceed, consider guidance regarding confidence intervals; how close to a cut-off is the patient; is it an educational cut-off and consider if a range is sufficient to provide either a diagnosis or provisional diagnosis. If a diagnosis cannot be provided then consider if a provisional diagnosis is appropriate or a discussion of relative strengths and weaknesses that would inform the recommendations. In some cases if only a provisional diagnosis is possible, the recommendations can allow for the patient to be managed appropriately until diagnostic clarity can be achieved when the patient can manage the demands of the assessment required.
- There may be a greater reliance on interview, collateral, behavioural, work samples, etc to formulate a treatment plan or recommendations when remote or modified in person evaluation cannot be managed.

- Assess the availability of equipment/secure internet connection in the home.
- If you are restricted to remote testing that may focus primarily on verbal test scores consider the norms, ranges of scores and confidence intervals.
- *Deaf/Hard of Hearing*: Consider if appropriate equipment for hearing can be used in a remote testing context and impact of PPE if in person (e.g., masks with clear plastic, etc).
- *Blind/Low Vision*: You may be restricted to only verbal tests in a fully remote situation and consider the impact of PPE if in person.

*Considerations for procedures:*

- *Arrangement of the assessment*: Be aware that a remotely conducted assessment done from the examiner's home has the potential to reveal personal information about the examiner, their home and their family. Consider taking steps to minimize this. Be mindful of your own assessment environment and take reasonable steps to ensure that the session will not be interrupted.
  - Spend the necessary time orienting the examinee to the assessment process, obtaining a comprehensively informed consent, and ensuring that the examinee is comfortable with the technologies being used and with the assessment demands that are asked of them. This includes confirming the adequacy of the sound and video quality.
  - Be aware of the importance of establishing rapport with examinees.
  - Understand the importance of examinees attending the remote assessment unaccompanied, with the exception of situations in which a support person or interpreter is required. Instruct examinees on the importance of minimizing distractions during the assessment and document the presence or absence of distractions.

*Behavioural observations*: In a clinic setting observations can be made that may be limited on a remote/virtual platform, including an examinee's gait and how they interact with clinic staff and potentially other patients in a waiting area.

- Be aware of the potential limitations to some of the behavioural observations on a remote/virtual platform, and seek out information from other data sources that are a part of the overall assessment method. Observations of other healthcare providers may be available in the file material. As well, collateral interviews with people who know and observe the examinee are another source of data to be considered where a remote/virtual platform may limit some direct observations.

- Be aware that typical behavioural observation domains, including speech, cognition, affect, thought organization and content, and mood can be collected readily over remote/virtual platforms.
  - The remote/virtual platform offers opportunities that are not possible during interviews in a clinic setting. For example, when using such platforms aspects of the examinee's living environment may be observed. One is also able to observe an examinee's comfort level and skill with respect to using remote/virtual platforms.
  - Be mindful of the impact that the remote/virtual platform may have on the examinee's presentation. Some examinees are more comfortable sharing difficult or painful material when in the comfort of their own home, whereas some may more easily engage in impression management when they are in the familiarity of their own environment.
- *Clinical Interview:* Be aware that carrying out an initial screening/orientation or interview prior to administering any tests using online technology is necessary. This process enables psychologists to obtain informed consent, as well as establish rapport and reinforce the examinee's motivation to engage adequately in test administration. Carrying out this process prior to test administration provides the psychologist the ability to address any unique needs the examinees may have with respect to testing, such as reading level, need for translator/interpreter, technology-related problems, and visual issues. Carrying out this process prior to test administration also affords psychologists with an opportunity to be mindful of cultural and language issues, and to modify the assessment method (including the test battery) to ensure the collection of the most relevant and valid information possible.
    - When collecting information regarding a history of abuse, trauma and mental health problems and an examinee is in their own home, it is critical that appropriate privacy is maintained so that others cannot hear them.
    - If an interpreter is to be used, multi-user technology may be required, with all three parties having strong connections so that communication is error free and seamless.
  - *Collateral Interviews:* As with clinical interviewing, be aware of the importance for the collateral source attending the interview to be unaccompanied. To this end, attempt to ensure that collateral sources are interviewed in a private room so that the examinee does not influence their responses.
  - *Psychometric Testing:* Be aware of the tests that are accepted for the assessment you are conducting (e.g., tests acceptable in a legal context, psychoeducational, neuropsychological, etc) and attempt to incorporate these into your test batteries. If you are using some form of remote administration procedure (i.e., fully remote, hybrid, etc), be mindful of using tests that are amenable to that procedure.

- Be aware of any limitations to the procedure being used and document these in appropriate section(s) (i.e., Behavioural Observations, Test Validity, etc).
  - With regard to test administration, ensure that the examinee has the appropriate technology and/or full understanding of the administration procedure.
  - When administering psychometric tests using remote/virtual platforms, find methods to proctor the administration of the tests. This is critical to ensure to the best of your ability that the examinee is completing tests on his or her own and is not influenced by someone else.
  - Be mindful of the examinee's ability to hear spoken content and questions. Work to ensure the examinee's ability to see material that is presented on their monitor, including the impact of such factors as the size of the monitor being viewed by the examinee.
  - When an interpreter must be used in the administration of self-report measures, ensure that the interpreter is appropriately set up to read and translate questions. Consider the impact of using an interpreter in this format when reviewing and interpreting the test data that are generated.
- *File Review:* The review of the documentation contained in the file holds important consideration when evaluating and synthesising all the data gathered during the course of the assessment.

## **Pediatrics**

To date, there have been few studies examining remote assessment approaches among children and youth. Early studies adopting teleassessment approaches included those by Plomin (2005), in which over 5000 children were assessed using standard interviews by telephone. More recently, remote testing involving direct testing of the child via videoconferences have been reported in two separate studies. Both measured interrater reliability, not test-retest reliability. Ragbeer et al., 2016; measured the feasibility and reliability of a remote method for neuropsychological evaluation of individuals affected by Juvenile Batten disease in New York State. The study involved 3 affected children and one healthy sibling (Mean age 14.3). The assessments were piloted in a hotel in two separate rooms using Vido. The study compared interrelater reliability between the psychologist who participated in the scenario with remote assessment including in-person tech support with the psychologist who participated with the scenario of in-person assessment with remote expert support. Measures included: Wechsler Intelligence Scale for Children – Fourth edition, Similarities, Vocabulary, Information, and Digit Span subtests; Wide Range Assessment of Memory and Learning – Second edition, Story Memory subtest; Verbal Fluency test. Interscorer agreement was high, with only slight deviations on verbal fluency that was recorded in-room versus by the assessor remotely. This study also provided a cost savings analysis, estimating that \$650 was saved for family in travel and time. While the study demonstrated interrater agreement, the study did not include a comparison of virtual vs. one to one administration to provide a measure of correlation between scores given the two test administrations.

Most recently, Hodge and colleagues (2019) in New South Wales conducted a pilot study to determine the feasibility of telehealth to assess cognitive function in neurotypical children with



specific learning disorder. The study also looked at interrater reliability obtained between two psychologists when the cognitive test was administered virtually. The results showed high interrater reliability (.98-.99) and were not surprising as the findings were the same with one to one testing of the normative sample. The study involved 33 children (Mdn age: 9 years 11 months). Comparisons were made between the intellectual ability index scores obtained by a psychologist sitting face-to-face with the children and another psychologist sitting in the same room as the children. The assessing psychologist delivered the assessment remotely from a school on the intellectual ability indices, and the reported interrater agreement between the assessor who delivered the assessment via telehealth and the psychologist who sat in the room with the student was high (correlation coefficient range= 0.981–0.997). As in the Ragbeer and group study above, test-retest reliability (in this case comparisons between the two administration methods), was not carried out. However, there was high interrater reliability and all parents indicated being ‘comfortable’ throughout the telehealth administration. Many reported their strong support for the aim of the project, to improve accessibility of specialist assessment services for families living in rural and remote areas.

In a recently conducted study A. J. Wright et al., (2020) compared remote and in-person administration of the WISC-V. They found that the IQ scores obtained for the two methods of administration for the WISC-V were “mostly equivalent and interchangeable, and as such all the WISC-V normative and psychometric (reliability, validity, utility) research can be applied confidently to the new online, remote administration of the test”.

Overall, there is evidence to indicate that remote assessments can be conducted with children and adolescents with a high interrater reliability; however, the considerations outlined (see prior sections) must weigh into the psychologist’s determination of the confidence in conducting the assessment as well as in the results they obtain. Concerns about the reliability and validity of the test results should be discussed and considered in the diagnostic considerations and treatment plan.

Based on the review of past research and looking at the feasibility of the different test, the following list provides ideas on what assessment tool can and cannot be used in a remote assessment by category in a direct-to-home model.

<b>Area</b>	<b>Can Assess</b>	<b>Require sending Response Book</b>	<b>Can Not Assess</b>
Overall Ability	IQ (WASI 2-Factor)	WISC FSIQ (processing speed)	Block Design
Social Emotional	YES		
Memory	Verbal STM, WM, & LTM   Visual WM	WRMAL Visual	Visual STM & LTM
Executive Function	Questionnaires & Verbal EF	Motor EF	Some Planning, Switching

Attention	Questionnaires		Continuous Performance Testing
Processing Speed	Verbal Fluency	Processing Speed requiring pencil and paper	
Motor		Motor Functioning, Visual Motor Integration	
Language	Comp., Vocabulary, Following Directions		
Reading	Comp., Fluency, Word, Decoding, PA, RAN		
Writing	Expression, Spelling, Handwriting	Writing Fluency	
Math	Calculations, Application	Math Fluency	

As noted from the chart above certain tests cannot be administered remotely that would factor into the comprehensiveness of the assessment; however, alternative strategies can be considered to manage these situations. For example, the WISC Block Design cannot be administered as the patient needs to physically manipulate the blocks. To gain WISC FSIQ, Visual Puzzles can be substituted for Block Design. Other tests such as the Tower of Hanoi or Dot Location (CMS) that could not be delivered in a direct-to-home model would not have a direct substitute and would require consideration of another test to capture the cognitive construct to be assessed, if possible.

Subtests that require response booklets will need proper consideration due to test security. Consideration can be given to delivering the response booklets to the patient’s home. The booklets should be in a sealed envelope with the practitioner’s signature on the sealed fold of the envelope. The patient should only open the envelope in front of the practitioner when the camera is on. After the response booklets are all completed, they should be placed in a second sealed envelope well the practitioner can see and have the patient signed along the seal of the envelop.

If delivery of response booklets is not feasible, there are a number of subtests that can be still administered from the response booklets. Tests such as numeric operations and essay writing can be administered using a document camera to display the response book, have the patient use a paper and pencil to complete the question displayed on the screen, and have them provide you with a verbal response and record it in the response book for them to verify if this is the response. Patients will also need to send an image of the work they have done for comparison and error analysis.

As with adult assessment, there are issues to consider when assessing children remotely. Issues related to the ability to engage a child with the assessment process must be considered. Children may, in fact, be more amenable to remote assessment given their increased familiarity and confidence with technology. However, when working with young children it will be necessary to work with parents ahead of time to discuss issues related to how long a session could be,

provision of rewards (if needed), and to learn about the child prior to engaging in the assessment process. More time for the preparation of an assessment is likely with a younger child. It is important to have an understanding of any potential sensory issues (e.g., vision and hearing) that may impact on the ability for the child to engage in the assessment session. Determining the level of language ability, both of the child and of the adults who may be around to support the process, will be important. With young children, the presence of a parent in the assessment process is likely and clear discussion with that individual about their role in this process will be necessary. Of course, the availability of the appropriate equipment in the home (if that is used rather than a testing centre) needs to be considered, as well as the facility of the parent in using the equipment.

To assist in building compliance with the assessment process, communication with family members about the benefit of providing rewards to the child should occur. As a student completes each subtest, they receive a number of points. At the end of the assessment they can turn this in for the predetermine prize at the end. Prizes do not have to be tangible objects (e.g., toys) but could be activities with family members (e.g., getting to pick a board game to play with parents). With younger students, “virtual stickers” could be used. One virtual sticker set up is finding images of the patient’s favorite character. In PowerPoint, a scene can be created by choosing which virtual sticker the child would place on a background. The final collection can be sent as a PDF document.

In addition, the need for multiple, short assessment sessions may be necessary. The provision of breaks during a scheduled assessment session should be considered and strategies for how to deal with these need to be considered.

***Tiered Assessment Strategies:*** At the Hospital for Sick Children (HSC), neuropsychologists are evaluating a new tiered remote/telepsychological process that involves both an initial screening with a full assessment if necessary, and the option of going directly to a full assessment for children referred for assessment. The goals of this program are to increase service delivery and provide informed and time-conscious direction to patients and families based on needs identified in the screening assessment (e.g., further in-depth testing; psychosocial support, educational advocacy). These efforts will also be highly relevant post-COVID-19 social isolation measures. The remote/teleneuropsychological screening assessment leverages the neuropsychologist’s expertise in combining information gathered using online tools and methods (i.e., questionnaires, family interview, select online testing measures) to identify those people who really need a more in-depth in person evaluation or other follow-up later. Examining this novel remote/teleneuropsychological practice will inform service development with a goal to increase our reach to families who have time, work, or transportation barriers, which is extremely timely given current COVID-19 restrictions (i.e., social distancing and quarantine) but also beyond in reducing burden and even increasing access to children and families who may not otherwise be able to attend in-person assessments. Family feedback to date has been positive. One parent of an 8-year-old child with severe Hypoxic-Ischemic Encephalopathy (HIE), reflected on the child’s increased comfort in completed activities where “she typically does her homework” and the decreased anxiety for the parents on the pressure in “getting it all done” on the day scheduled at the hospital, in addition to the 2-hour commute.

*See Appendix B Decision Tree for Teleneuropsychology Services*

Tiered assessment models in other situations with other populations or referral questions may vary somewhat from this hospital model. For example, in schools, discussions about the appropriateness of the referral questions for psychological assessments take place directly with the parents at the school and with the psychologist present. The assessment questions for psychologists and neuropsychologists in schools and in clinic settings are often more general than in a hospital setting, covering many areas and not as clearly outlined as perhaps in other situations. In school and some clinic settings, psychologists do not often follow the patient over time and have to ensure that a number of learning and mental health areas are fully examined, so that an initial screening with the opportunity to follow-up, may not be as appropriate as a full assessment.

### **Geriatrics**

Older adults in conjunction with their age may have additional comorbid health diagnoses, and possibly issues with frailty that make them more vulnerable to the impact of COVID (and other health conditions) and psychologists should take steps to best address the safety of their patients when providing assessment, treatment, and rehabilitation services. Thus, the benefits of in-person services may need to be weighed against the risk of offering appointments in person when other service delivery options may be available (i.e., remote options) that may present reduced physical health risks to the patient/patient.

Clinicians who are providing services to vulnerable populations such as older adults may be faced with making decisions regarding the safest method for service delivery. During the COVID 19 pandemic, clinicians have been faced with delaying an in-person assessment/treatment appointment; determining if treatment can be provided remotely; or determining if their assessment can be completed via a hybrid model or a remote model. As hybrid and remote models of service delivery have become more necessary, various considerations should be made by clinicians that best reflect the needs older adult populations.

With older adults consider the other components of assessment information such as interview, collateral information and other sources to formulate diagnoses or make provisional diagnoses. Treatment strategies and recommendations may still be provided in the context of information from alternative sources.

### **Initial Considerations for Older Adult Service Delivery**

Older adults may be referred to psychological services without knowing why or what the service entails. Remote service delivery options could add confusion about the service being provided and psychologists should attempt to best inform their patients in order for appropriate consent to be given. It is important that the psychologist take steps to ensure that the individual understands the service being offered and thus can provide informed consent to participate as per the CPA e-therapy guidelines:

*Principle 1: Respect for Dignity of Persons and Peoples.* Psychologists may consider requiring additional information from the referral source about the patient's understanding of the referral and revising referral forms or completing a consultation with the referral source may assist with

this process. The clinician could also review the medical documentation in order to gain further detail with regard to the patient's status and understanding of the referral. A pre-service intake consultation and potentially cognitive status screening could assist psychologists once the service process has been initiated. Older adults with cognitive impairments may have substitute decision makers for medical consents and Psychologists should ensure that appropriate individuals are identified for providing consent. It is important to ensure that the appropriate individual is identified to provide consent as per the following from the CPA guidelines:

*“2. Psychologists providing services to patients for whom capacity to consent or freedom of consent may be an issue arrange for an in-person contracting session, either with themselves or with another qualified health care practitioner. (Informed Consent, Freedom of Consent) 3. If a substitute decision maker is needed to provide consent (e.g., a parent), the identity of the substitute decision maker is verified **in person**, either with themselves or with another qualified health practitioner. (Protection for Vulnerable Persons).”*

The global pandemic has highlighted a number of systemic problems that exist in the facility-based health care delivery system for older adults. Given the on-going devastating situation regarding safe care delivery in long-term care and retirement residences in Ontario, there may be an increase in demand for remote psychological treatment services. Psychologists who provide treatment or assessment remotely to individuals living in long term care or retirement facilities should be aware that mandatory reporting is required when a regulated health professional becomes aware of elder abuse (if known or suspected) for individuals residing in long term care facilities and retirement homes. According to the Elder Abuse Prevention Ontario organization website, (<http://www.eapon.ca/what-is-elder-abuse/legislation-reporting/>) elder abuse includes: neglect of individuals, abuse of individuals (emotional, physical, sexual), improper service delivery, fraudulent use of resident funds or theft of resident funds/belongings, and criminal/illegal conduct of workers/facilities. *Thus, abuse reporting requirements pertaining to the rights of individuals living in a care facility should be addressed in the consent process if the older adult resides in a facility (i.e. required to report abuse in a long-term care setting as per the Long Term Care Homes Act 2007, and the Retirement Home Act 2010).* At this time, there are no specific mandates or regulations for regulated health professionals to report abuse of older persons living in the community.

Psychologists should recognize that some older adults may not be comfortable with or they may not have access to remote service delivery options, and thus wait-times for in-person services would need to be discussed. If an in-person service delivery method is determined to be the best option, then the risks and benefits of attending services should be explained (see example of a consent form for in-person services). Also, protection for vulnerable patients should be provided and can include: appropriate health screening of all patients and caregivers entering the office/clinic, wearing PPE, providing social distancing during appointments and in waiting rooms (which may require limiting numbers of patients seen per day), providing education about prevention, and, providing education about the mental health impacts of the pandemic and strategies to address those impacts. Accompanying caregivers may need to be accommodated for in person appointments for older adults with cognitive impairments or mobility issues, and this aspect of service delivery can impact the number of people in the clinic. Additional people will

need to be screened, and additional PPE will be required. Older adults may not have access to safe (i.e., socially distanced) transportation for in-person services, and, psychologists should make efforts to educate their patient/patient about safe options for transportation. Furthermore, older adults can be vulnerable/isolated in their own community and it would be prudent clinical practice to be aware of various supports in the community (i.e., mental support hotlines for older adults, socialization programs (i.e., seniors without walls phone service), and community resources for practical needs such as food and supplies in order to assist an older adult in need of essential living support and/or iADL supports.

### **Considerations/caveats for in-person versus remote provision of services:**

- Older adults may be apprehensive about using technology and assessing their comfort level with technology will be required. If they are comfortable with remote service delivery options, then their status/preference for the type of technology used (i.e., phone versus online) will need consideration. If an online approach is desired or preferred, the Psychologist may need to assist the individual with accessing the online platform and provide education about how the platform works.
- If the patient/patient resides in a long-term care or retirement facility, the opportunity for a private location for the session may be difficult to find; and, consent should be modified to discuss mandatory reporting regulations regarding abuse in long term care and retirement home facilities.
- Identify the limitations for consent (i.e., cognitive status? power of attorney, capacity)
- More specific hearing and vision screening will be required (i.e., is the vision and hearing adequate for remote service delivery which can involve a delay or an echo)
- If a translator is required there may be limitations in accessing a translator; extra party log in for remote sessions may prove to be problematic and plans for system failures should be explained; and, the use of the translator may be confusing or difficult to navigate with a senior who has cognitive impairments

### **Considerations for addressing patients during the pandemic:**

- Reaching out to all older adults in your service to provide COVID education and to assess/help with knowledge of what to do, where to go
- Check for COVID related anxiety and provide supportive suggestions (i.e., reduce TV watching, focus on what is in their control, PPE education)
- Check for their supports and contacts in the community in terms of access to resources (access to groceries, supplies)
- Complete a mental status check if appropriate
- Modify any current suicide safety plans to suit the new COVID related changes to society (i.e., go visit a friend may change to call a friend)
- Confirm address and emergency contact information is current
- Collect information about co-morbid health conditions that would impact their safety for attending future services in person
- Assess transportation needs

### **Considerations for new referrals:**

- Ensure the address of the patient's/patient's current location is collected

- Collect a contact number for an emergency contact
- Collect information about telehealth accessibility (i.e., do they have a tablet or computer)
- Assess the patient's/patient's preference and comfort level for various technological service delivery options (i.e., are they comfortable with using technology, do they prefer a computer or a phone for distanced services such as therapy)
- Consider completing enhanced screening of new referrals for vulnerable medical conditions in order to assist with the decision tree for determining whether or not in-person services can be completed
- Clinicians should consider doing a pre-intake screening call in order to best complete a decision tree for determining the viability of telehealth versus in-person services
- Clinicians who determine that it is necessary or best practice to see a patient/patient in person should consider reducing the length of contact time with the individual (i.e., hybrid assessment model which includes the possibility of completing the intake, interview, some psychometric measures virtually); ensure social distancing practice; and have the necessary PPE to conduct services as per the college guidelines
- Determine transportation options and provide education about safe options
- Determine a back-up plan for remote services if there is a technology failure and inform the patient of this plan

## **Legal Assessment**

Legal assessments require careful consideration including:

- A high standard with respect to scientific evidence presented by experts. As such, a robust methodology must be utilized that relies upon multiple sources of information.
- A psychological legal assessment assists triers of fact by providing expert evidenced based opinion supported by assessment findings that would not otherwise be known by the trier of fact.
- Psychologists providing legal assessment do not advocate for the examinee.
- Psychologists providing legal assessment often see the examinee only once, and often do not have the opportunity to follow up over repeated visits.

In all legal assessment contexts, the psychologist's opinions are informed by evidence-based approaches and consideration of the validity and reliability of findings. Regardless of the context in which a legal assessment is carried out, psychologists address the limits to the confidence they have in the opinions they provide.

Psychological assessment is well suited to being conducted through some model of remote assessment procedure as psychologists do not conduct physical (hands-on) examinations to measure and understand impairment; however, some assessments may have as part of the psychometric test battery (including validity measures) the use of materials requiring manual

manipulation or presentation of visually based information. In these latter contexts, if fully remote procedures are employed then, as indicated in prior sections, appropriate alternatives, modifications to the tests selected or deletion of the tests should be considered. Otherwise consider an alternative remote administration format (see prior section titled, Models of Remote Assessment). In all cases the impact of conducting the assessment using a method alternate to an in-person format, should be discussed in the report and considered with regard to formulation and when rendering a diagnosis. The psychological assessment method is founded on gathering data from multiple sources: an examinee's behavioural presentation, subjective reports (potentially gathered through structured, unstructured or semi-structured interviews), evidence based psychometric findings, collateral interview sources of information, and material contained in the examinee's medical brief and other documents.

When deciding to provide any type of legal assessment, remotely through an online audio/video platform, careful consideration to each aspect of the assessment method as it is impacted by this format should be given. The power of the assessment methodology lies in the psychologist's synthesis of the consistencies and discrepancies apparent in the different sources of information that psychologists collect, rather than relying on one source of data to form opinions, as well as in the validity of their test procedures.

The data that psychologists typically collect in a standard clinic setting can be obtained through some model of remote assessment procedure. Through ongoing examination of data points from multiple sources, psychologists consider where modifications to the assessment method are required to accommodate the model used. Consideration should also be provided to how certain data points may require more or less weight in their considerations, or may be interpreted differently depending on the confidence held with respect to all other data points.

There have been cautions provided about conducting 'high risk' assessments using fully remote administration procedures. The decision by the psychologist to conduct what are considered 'high risk' assessments should take into consideration a discussion with the referral source about the procedures that will be implemented and any considerations related to the impact upon the psychometric test results, formulation and diagnoses, as well as be clearly documented in the report. The decision to embark on such an assessment should be based upon the psychologist's ability to adequately discuss the procedures that will be employed and the impact upon the conclusions in a manner that is well understood by the psychologist and the individual requesting the assessment.

- APA Telepsychology Best Practice 101 Series  
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<https://doi.org/10.1037/0000046-000>
- Pragmatics of Telepsychology Practice in the Age of COVID-19  
<https://ce.nationalregister.org/videos/pragmatics-of-telepsychology-practice-in-the-age-of-covid-19-archived>



- The Trust: A Practical Guide to Providing Telepsychology with Minimal Risk  
<https://parma.trustinsurance.com/Workshops-Webinars/Free-CE/A-Practical-Guide-toProviding-Telepsychology-with-Minimal-Risk>
- The Trust: COVID-19 Resources for Practitioners  
<https://parma.trustinsurance.com/Resource-Center/COVID-19-Resources> • The Trust PARMA Resource Center <https://parma.trustinsurance.com/Resource-Center>

## **Forensics**

As with forensic evaluations for civil matters, forensic assessments conducted for criminal matters are high stakes and require careful consideration. Results of these assessments can have substantial impact both defendants and the public. These assessments are done in a number of contexts: inpatient forensic mental health units, corrections, and also in private practice. Referral questions include but are not limited to assessing fitness to stand trial, assessing criminal responsibility, and assessing risk to re-offend. These assessments are often considered heavily in decisions about sentencing, treatment, and release. Conducting some of these assessments virtually is not new. A number of psychiatric institutions in Ontario have been using telehealth to assess individuals who are criminally involved long before COVID 19 in order to service people in remote communities.

Consistent with civil forensic evaluations, which have the potential to be influenced by secondary gain, it is vital that evaluators assess for feigning and malingering and assess response style more broadly. With this in mind, forensic psychologists working on referrals related to criminal matters also need to be rigorously mindful of their methods and rely on multiple forms of data in addition to the virtual interview (e.g., file information and institutional records, testing, and collateral interviews).

Often, providing opinions on certain psycho-legal questions (e.g., criminal responsibility) involves a close collaboration between psychology and psychiatry. Psychologists, though, provide a unique contribution in terms of psychometric testing. A number of symptom validity tests have become available online. A growing body of research supports the efficacy of using remote/virtual services for some aspects of forensic assessment; e.g., interrater reliability has been found to be high between in-person and virtual administrations of structured interview scales used to assess mental health symptoms and competence to stand trial (Lexcan, Hawk, Herrick, & Blank, 2006; Manguno-Mire, Thompson, Shore, Croy, Artecona, & Pickering, 2007). It must be noted, however, that there are some specialized methods of testing that are unique to the criminal forensic context that cannot be done remotely; e.g., penile plethysmography to assess sexual preference. Additionally, it is not uncommon for individuals in the criminal forensic context to present with neurocognitive impairment. As such, the same limitations with respect to neuropsychological assessment completed in other contexts apply in this context as well.

## **Literature Addressing Remote Administrations of Specific Psychometric Tests**

Information regarding remote and computerized neuropsychological assessments are cited below.

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Cognitive Test or Subtest	Publication
Boston Naming Test - 15 Item	Cullum et al. 2014 <sup>a</sup> ; Cullum, Weiner et al. 2006 <sup>a</sup> ; Parikh et al. 2013
Boston Naming Test - 15 Item	Cullum et al. 2014 <sup>a</sup> ; Cullum, Weiner et al. 2006 <sup>a</sup> ; Parikh et al. 2013
Boston Naming Test - 60 Item	Barton et al. 2011; Harrell et al. 2014; Vestal, 2006 <sup>a</sup>
Brief Visual Memory Test-Revised (including copy)	Harrell et al. 2014
California Verbal Learning Test-Second Edition	Barton et al. 2011 [short form]; Harrell et al. 2014
Clock Drawing Test	Barton et al. 2011; Cullum et al. 2014 <sup>a</sup> ; Parikh et al. 2013; Wadsworth et al. 2016 <sup>a</sup>
Delis-Kaplan Executive Function System <i>Proverbs Subtest</i>	Harrell et al. 2014
Digit Span	Barton et al. 2011 [ <i>WAIS-III</i> ]; Cullum et al. 2014 <sup>a</sup> ; Cullum, Weiner et al. 2006 <sup>a</sup> [ <i>Randolph, 1998</i> ]; Harrell et al. 2014 [ <i>WAIS-IV</i> ]; Parikh et al. 2013; Wadsworth et al. 2016 <sup>ab</sup>
Hopkins Verbal Learning Test-Revised	Cullum et al. 2014 <sup>a</sup> ; Cullum, Weiner et al. 2006 <sup>a</sup> ; Harrell et al. 2014; Parikh et al. 2013; Wadsworth, 2016 <sup>a</sup>
Independent Living Scales - <i>Health and Safety Subtest</i>	Harrell et al. 2014
Mattis Dementia Rating Scale <i>Memory I Subtest</i>	Barton et al. 2011
Modified Rey-Osterrieth Complex Figure Test (Copy, Recall and Recognition)	Barton et al. 2011
Oral Trail Making Test, Parts A and B	Parikh et al. 2013; Wadsworth, 2016 <sup>ac</sup>
Repeatable Battery for the Assessment of Neuropsychological Status, Forms A and B	Galusha-Glasscock et al. 2015 <sup>a</sup>
Rey-Osterrieth Complex Figure Test (Copy, 3" Delay)	Harrell et al. 2014
Trail Making Test, Parts A and B	Barton et al. 2011; Harrell et al. 2014
Test of Practical Judgment	Harrell et al. 2014
Verbal Fluency - Semantic Fluency	Barton et al. 2011 [ <i>animal and grocery</i> ]; Cullum et al. 2014 <sup>a</sup> [ <i>animal</i> ]; Cullum, Weiner et al. 2006 <sup>a</sup> [ <i>fruits and vegetables</i> ]; Harrell et al. 2014 [ <i>animal</i> ]; Parikh et al. 2013; Wadsworth, 2016 [ <i>animal</i> ]
Verbal Fluency – Phonemic Fluency	Barton et al. 2011 [ <i>COWA</i> ]; Cullum et al. 2014 <sup>a</sup> [ <i>FAS</i> ]; Cullum, Weiner et al. 2006 <sup>a</sup> [ <i>FAS; CFL</i> ]; Harrell et al. 2014 [ <i>COWA</i> ]; Parikh et al. 2013; Vestal et al. 2006 <sup>a</sup> [ <i>COWA</i> ]; Wadsworth, 2016 <sup>a</sup> [ <i>FAS</i> ]
Wechsler Memory Scale – Fourth Edition <i>Logical Memory I and II Subtests (Adult and Older Forms)</i>	Harrell et al. 2014

Originally compiled by Gregg Nigl

## **Video Conferencing Platforms**

The following reflects several of the currently available platforms. We are not recommending any specific platform but are providing a list of platforms that are currently being used by psychologists. Only HIPAA/PIPEDA compliant platforms are listed.

Adracare - <https://adracare.com/>

Atlantic Care - <https://atlantic.care/>

Blink Session - <https://blinksession.com/>

Doxy.me - <https://doxy.me/>

Microsoft Teams - <https://www.microsoft.com/en-ca/microsoft-365/microsoft-teams/group-chat-software>

On-Call Health - <https://oncallhealth.ca>

Think Research - <https://www.thinkresearch.com/ca/products/virtualcare/>

VSee - <https://vsee.com/>

Zoom for Telehealth - <https://zoom.us/healthcare>

Note that the healthcare version is the only Zoom solution that is HIPAA/PIPEDA compliant

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## **APPENDIX A**

### Current Status of Virtual Assessment and Consultation in Ontario and Canada

In light of the limitations of examiner-administered, face-to-face assessment, the practice of virtual assessment has been developed as a method of examination of psychological and, or, neuropsychological impairment using secure online, synchronous interaction with patients in real-time. To date however, it has not been widely adopted for the purpose of assessment in the province of Ontario and across Canada. To this end, and in an effort to understand the current Canadian psychological regulatory policies and procedures on cross-provincial utilization of virtual assessment and consultation platforms, Zakzanis and Orner (2019) sought to undertake an independent research survey so to capture the current position(s) of a wide cross-section of regulatory psychological colleges across Canada, and namely, those areas of clinical psychological practice that tend to commonly intersect as members of a multidisciplinary clinical team (e.g., social work; occupational therapists). Further, the identification of areas that may be currently undefined or under review was sought, so that the psychological clinician audience could appraise themselves of regulatory and/or legal guidance prior to engaging in such virtual assessment and consultation activities. One staff member from six colleges of each province and territory of Canada; including the College of Psychologists, occupational therapists, and social workers was contacted. Each representative from the aforementioned colleges was sent two distinct options to complete this survey; a) a link was provided in each email that led the individual to our survey on the survey monkey interface, b) with each email, there was a portable document format (PDF) file attached, this contained a copy of the survey that could be completed by hand and re-submitted via email. The survey consisted of five questions and five follow-up questions. This study used one survey designed on survey monkey. It was designed to target each specific component of virtual assessment pertinent to the goal of this work. The survey consisted of five questions: 1) Do you have any written policies or procedures regarding the use of Telemedicine and/or Virtual care platforms available for your members?, 2) Do you have any written direction for your members who wish to provide clinical consultations and/or assessment services to individuals residing in Canadian provinces/ territories outside those in which they are currently licensed?, 3) Do you have any written direction for your members who wish to provide clinical consultations and/or assessment services to individuals residing in non-Canadian jurisdictions where the member is not currently licensed to practice?, 4) Does your organization currently have plans to either review the policies listed above or an initiative to create such documents? and 5) In the past 12 months, can you please estimate the number of enquiries or questions your organization has received from individuals or stakeholder groups regarding the use of telemedicine and/or virtual care platforms?

In total, 70 staff members were contacted via email. After the first email, 9 responses were received within 14 days. Across respective colleges, considerable variability was noted in terms of the existence of formal written policy. Where policy was noted, direction ranged from idealistic standards to non-specific platform standards whereby regardless of modality delivered, clinicians are expected to practice according to discipline defined ethics (e.g., Canadian Code of Ethics for Psychologists) and that those engaged in virtual assessment and consultation adhere to the same standards (consent, respect, competence, etc) as those who are not. Table 1 illustrates the specific findings.

Table 1.

Who responded	Written policies or procedures for telemed (Y/N)	Notes	Brief summary
Association of Psychologists NS	No	Answered no to all questions regarding policy, estimated 1-10 inquiries about telehealth in the past year	N/A
Saskatchewan College of Psychologists	Yes	Written policy regarding use of telemedicine authored between 2010 and 2011, no written direction for providing telecare outside provincial jurisdiction or outside Canada, do plan to review policy as part of an ongoing effort from regulators, estimate 11-20 inquiries about telecare	Standards state that regardless of modality psychologists are expected to practice according to the Canadian Code of Ethics for Psychologists, psychologists must be mindful of 20 practical issues listed in the document specific to telemedicine (consent, respect, competence, etc)
Professional Licensing and Regulatory Affairs - Government of Yukon	No	Answered no to all questions except that they have received inquiries only telemedicine in the past 12 months, did not specify how many	N/A
Ontario College of Social Workers and Social Service Workers	Yes	Written policy regarding the use of telemed by members authored in the fall of 2011, have written direction for providing telecare outside of their province authored in spring 2014, no written direction for administering telehealth to non-Canadians, no plans to review policies, estimates about 151-200 inquiries about telehealth in the past year	Written policy for members outline the appropriate way to use text-messaging and email, the risk and benefits of it. Documents also recommends creating a social media policy as well as what members should

			consider before they use online counseling. Direction for out of province online counseling recommends following <i>the social work and social services work act</i>
Newfoundland and Labrador Association of Social Workers (NLASW)	Yes	<p>The purpose of these standards is to:</p> <p>Support social workers in their use of technology in social work practice, b)</p> <p>Highlight awareness of the practice considerations and ethical responsibilities when using technology in practice, and c)</p> <p>Inform social workers, employers and the public on best practice standards for social work.</p> <p>Technology use in social work practice is grounded in the values, ethics and principles of the social work profession. Social workers must be adept in using the forms of technology pertinent to therapy. All technologies being used are fully disclosed to patients.</p> <p>All communication via technology is documented in keeping with agency/organizational policies.</p> <p>Be aware of interjurisdictional issues when providing therapy/social work via online practices.</p> <p>Ensure adherence to principles of social work profession when engaging in advocacy efforts or advancing social justice issues using technology.</p>	These standards are in place to ensure that all people providing therapy via electronic modalities, are both competent in using the forms of technology that are required - and specify in more detail the ethical responsibilities of care providers while communicating via electronic interfaces.
Ordre des psychologues du Québec	Yes	Written policy regarding telemedicine in 2013, have written direction on providing telemedicine across other provinces written in 2013, have written direction on providing telecare to non canadian citizens in March 2018, plans to review policy, no date given, estimate that there were 35-50 inquiries regarding telehealth	(can't read at the moment, document is written in french)



Nova Scotia College of Social Workers	Yes	Have written policies on telemedicine authored in august 2018, have written direction on providing telemedicine to other provinces written in 2017, do not have written jurisdiction for providing telecare for non-canadian citizens, do not have any plans to change, estimates that they will get 11-20 inquiries regarding the use of telemed	Policy on telemedicine regulated through the social workers act section 5A, members wishing to engage in telecare must a registration form that ensues they are qualified to do so. Direction on dealing with patients outside the province simply states that the social worker should abide by all the regulations in both the province they are administering the care and the province the patient is receiving the care in
CPNB	Yes	<p>Home jurisdiction is the psychology regulatory jurisdiction in which the psychologist / psychological associate is licensed to practice.</p> <p>Receiving jurisdiction is the psychology regulatory jurisdiction where the patient resides while receiving the services from psychologist / psychological associate.</p> <p>Before practicing telepsychology, the receiving jurisdiction needs to have proof that psychologist is licensed to practice in the home jurisdiction. And any complaints will go to the home jurisdiction.</p>	Mainly specifies guidelines of how to provide teletherapy in jurisdictions in which the therapist is not licensed in. Also states where the responsibility is held when providing teletherapy in jurisdictions other than ones own.
Alberta College of Occupational Therapists	No	Selected no for all answers	N/A
CAPDA	No	Answered no to all questions regarding policy, estimates 1-10 inquiries in regards to telehealth from members	N/A

As is most evident, Zakzanis and Orner (2019) sought to summarize the current position(s) of each regulatory College regarding direction to its clinician constituency on how they should apply their clinical practices and services in the evolving world of virtual assessment and consultation, both within the general clinical and medicolegal (third-party) context. The findings illustrate variable formal policy statements across colleges and where policy existed, variable direction with respect to how clinicians should engage in telemedicine/virtual care.

# APPENDIX B

