Clinical Psychological Assessment Training Issues in the COVID-19 Era: A Survey of the State of the Field and Considerations for Moving Forward

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Abstract

This survey aimed to inform graduate level training in clinical psychological assessment by identifying strategies, barriers, and needs of psychologists in managing assessment training activities in the COVID-19 era. A national online survey in English and French was advertised to registered psychologists involved in teaching, training, and/or supervision of clinical psychological assessment in Canada. Quantitative items were summarized, and qualitative data from the survey underwent thematic analysis. Of 164 respondents, 36% endorsed teaching clinical psychology or cognitive assessment courses and 54% of them said they would adapt teaching to be entirely remote in the context of COVID-19 restrictions. The biggest teaching barriers were perceived as *insufficient knowledge of remote clinical assessment methods* and *inadequate guidance from institutional authorities*, while the most significant concerns were perceived *ability to effectively meet course objectives* and to *prepare students for practica*. Over three-quarters (77%) of respondents indicated being involved in assessment training/supervision in practica or residencies, with 57% of these indicating their activities will be carried out in a blended format. The biggest barriers were clinic closures, onsite training restrictions, and inadequate resources, while concerns were related to threats to assessment validity and to health and safety. Results of this survey provide a snapshot of the state of the field and the authors offer key considerations for moving forward as psychologists prepare to adapt teaching, training, and supervision activities. The impacts of COVID-19 on clinical psychological assessment training are broad, and although disruptive, present an opportunity for a paradigm shift.

Keywords: Neuropsychology, Psychological Assessment, Training, Graduate students, Covid-19

Public Significance Statement

COVID-19 has significantly disrupted psychologists' ability to effectively teach and train students in clinical assessment. A survey of Canadian psychologists who are involved in these activities revealed that they do not have enough funding, equipment, or guidance to rapidly adapt their teaching and training in light of COVID-19 public health restrictions. Moving forward, psychologists must consider the ways in which professional training can be redefined to keep up with evolving technologies and demand for virtual assessments.

List of Abbreviations

Association of Canadian Psychology Regulatory Organizations	ACPRO
Canadian Psychological Association	CPA
Canadian Council of Professional Psychology Programs	CCPPP
Coronavirus disease of 2019	COVID-19
Personal protective equipment	PPE
World Health Organization	WHO

1.0 Introduction

The coronavirus disease of 2019 (COVID-19) pandemic began disrupting the lives of virtually every Canadian this past March (WHO, 2020). Consequently, the field of professional psychology has experienced significant disruption to many aspects of practice and training. Following the initial period of closures that swept many Canadian regions this spring (Public Health Agency of Canada, 2020), it quickly became clear that some areas of practice in psychology were more readily adaptable to remote methods than others. Provided adequate telecommunication methods, with some exception, many therapy/intervention programs have been able to resume services to a great extent, with relatively good empirical support for the utility of remote interventions (Bee et al., 2008; Kumar et al., 2017). Similarly, anecdotal reports suggest many professional psychology training programs have been able to move to remote methods for therapy with administrative and security protocol adjustments to allow for use of remote videoconferencing methods. Practitioners offering psychodiagnostic assessments have also been able to shift to online administration options (e.g., PAR iConnect) for select assessment measures, along with remote interview techniques, allowing for resumption of some of these services. However, not all psychological tests are available or validated for online administration, which poses challenges for ethical clinical service provision and assessment training.

Cognitive (e.g., neuropsychological, psychoeducational) assessments, often providing vital information to many areas of medical practice, educational planning, and rehabilitation treatment planning, have not been as seamlessly transferrable to remote practice. From a purely logistical perspective, cognitive assessment generally relies on numerous tools requiring the client's in-the-moment interaction with the assessor and procedures that have been strictly

standardized in face-to-face settings. While some preliminary guidelines for the conduct of teleneuropsychology practice have been provided (Grosch et al., 2011), few cognitive tools have been examined for reliability and validity in non-face-to-face scenarios (Munro Cullum et al., 2014; Brearly et al., 2017) and remote cognitive testing has not been commonly undertaken in clinical settings (Miller & Barr, 2017). In the current context of physical distancing and movement to remote service provision in many areas of healthcare, psychologists who routinely conduct cognitive assessments have had to individually determine their level of competence in delivery of remote assessments (Canadian Psychological Association [CPA], 2020; Bilder et al., 2020), and their level of comfort given the limited empirical evidence for the validity of measures utilized in these assessments (e.g., Brearly et al., 2017; Marra et al., 2020).

The unique facets of cognitive assessment pose a greater level of challenge with respect to clinical assessment training during the COVID-19 pandemic. In particular, professional graduate training programs are grappling with several nuanced issues that are continually arising in this context. Logistically, specialized technology, such as document cameras and secure videoconferencing platforms, are required to allow for the level of behavioural observation generally routine in cognitive assessment, and this needs to be available to all parties involved in the assessment, including trainees. Test security becomes a related issue, given the number of tasks that solicit written responses, as well as the decreased level of situational control as a consequence of not being in the same room as the client (CPA, 2020). In this context, test content remains vulnerable to being recorded and exposed to the broader public, jeopardizing it's validity and clinical utility, with additional legal implications for psychologists related to copyright infringement. Moreover, concerns surrounding the validity of cognitive measures used in non-standard administration is an issue related to ensuring appropriate training of future

clinicians (Farmer et al., 2020). There is also an emergent discussion of whether junior students should learn altered test administration methods prior to acquiring foundational skills in standardized face-to-face formats (Pade et al., 2020). Similarly, the level of competency of program faculty and supervisors in tele-assessment practices, and comfort level in providing training in these specialized areas of practice presents a salient issue (CPA, 2017, 2020).

Prior to the COVID-19 pandemic, there was no precedent for training in tele-assessment practices within Canadian professional graduate training programs. As a result, many training programs, as well as practicum and internship sites are lacking specific training protocols for remote assessment, as well as standards of practice for ensuring continuity of training amidst ongoing pandemic-related regulations and restrictions. Thus, within this rapidly evolving landscape, there has emerged a clear and urgent need for professional psychology training programs to "adjust to meet the needs" of their trainees impacted by COVID-19, while continuing to ensure "that those entering the profession are competent and ethical practitioners who are prepared to meet the challenges of practice" (Canadian Council of Professional Psychology Programs [CCPPP], 2020).

With these issues in mind, there is a need to gather information concerning the ability of psychologists to continue and appropriately modify training in clinical psychological assessment at the graduate level. The present survey was designed to provide a snapshot of the current state of clinical psychological assessment training in Canada. In particular, we aimed to identify the strategies, barriers, and needs of psychologists as they manage assessment activities in the COVID-19 era. A primary goal of this undertaking was to inform immediate planning of assessment training in the context of the ongoing pandemic, with an arguable secondary

important consideration being that our current experience must be a prologue to future planning, and that changes made now may also inform the future of assessment training more generally.

2.0 Methods

2.1 Respondent characteristics

Survey respondents were English and/or French speaking registered psychologists in Canadian provinces or territories (N = 164) who identified as being involved in teaching, training, and/or supervision of clinical psychological assessment in any capacity. Respondents represented a broad range of specialty areas of practice and were from varied settings including universities, and community-based public and private institutions.

2.2 Survey Development

This online survey was collaboratively developed by three of the authors who have specialized training in clinical neuropsychology and who work as faculty members in accredited clinical psychology training programs (KMG, TSEP, WJLT). Additional input on the survey was provided by the Clinical Neuropsychology Section Executive Committee of the CPA and solicited from Canadian psychologists who are members of a small working group dedicated to managing assessment training issues in the context of COVID-19 and who represent a diverse range of practice settings and locations, specialty areas, and career stages. The final version of the survey was also translated to French by one of the authors (NFNL) who is a bilingual senior clinical psychology doctoral student. English and French versions of the survey were programmed separately in Qualtrics.

The final survey consisted of 25 items, some of which included follow-up prompts and forced choice responses. The survey included three general categories of items related to clinical

psychological assessment activities: demographics, teaching, and training/supervision as part of a practicum or internship placement. Respondents endorsements on select items determined which sections of the survey they were asked to complete (e.g., only those stating they were involved in teaching were presented with teaching related items). Three final open-ended items were also included for optional response, asking respondents to describe: a) specific strategies or tools they have been are using/considering to manage clinical assessment training issues, b) any additional barriers they have encountered, and how they have overcome these; and c) any other needs they feel they have in relation to managing clinical assessment training issues, and how these needs may be best met. An optional "other comments" text box was also included at the end. We aimed to minimize respondent burden by designing the survey to be brief (approximately 10 min) and to only capture information most pertinent to informing the management of clinical assessment training issues in the COVID-19 era. Therefore, we decided not to gather additional demographic details (e.g., age, gender, ethnicity, etc.) Ethics approval was waived by the research ethics board of York University.

2.3 Survey Data Collection

Links for the English and French survey versions were disseminated online by the study authors via provincial psychology listservs, psychological assessment working groups and discussion forums, CPA members, social media (Twitter), word of mouth, and by e-mails to Directors or Chairs of CPA-accredited psychology training programs (clinical, school, and counselling). The survey was also forwarded by one respondent to the Canadian Council of Professional Psychology Programs to be disseminated via their listserv. The survey was open from June 18th to July 2nd, 2020. When respondents clicked on one of the two survey links (English or French version), they were brought to a page that included a preamble describing the

purpose and nature of the survey, how the data collected would be used and disseminated, how the survey was developed, and e-mail contacts of study authors (KMG, TSEP, WJLT) for inquiries. In order to proceed, they were required to click either “I consent, begin survey.”/“Oui, je veux commencer cette enquête.” or “I do not consent, I do not wish to participate.”/“Je ne consens pas, je ne souhaite pas participer.”

2.4 Analytic Strategy

Survey responses from English and French versions were combined in Qualtrics. Some aspects of data summary were performed directly in Qualtrics, while additional summaries were performed following extraction of data into a Microsoft Excel file. For qualitative data from the three open-ended items, we conducted a thematic analysis of responses, while respecting the minimum sample (n> 6) for this approach (Guest et al., 2016). We followed, in an abbreviated manner, the steps articulated by Braun and Clarke (2006). These steps emphasize the development of themes and the latter represent some level of patterned response or meaning within the data set. We also searched for meanings and patterns and included them in the first phase of this analysis and then further refined the themes. Descriptions and supporting quotes for each theme are detailed in the results section.

3.0 Results

A total of 185 psychologists consented to begin the survey and 165 completed the survey (English version: n = 147; French version: n = 18). We removed the data from one respondent who identified as primarily practising in the USA, yielding a final sample size of N=164. It took respondents a median of 8.7 minutes to complete the survey.

3.1 Sample Characteristics

Respondents comprised 164 psychologists from large urban centres and small towns in nearly every province, but none from the territories (see Table 1). A description of psychologists' primary area(s) of practice as it relates to clinical assessment training activities is summarized in Table 2. Three-quarters (74.7%) of the total sample indicated clinical psychology (46.1%) and/or clinical neuropsychology (28.6%) as their primary area(s) of competence. The majority (79.0%) work with adults (32.1%), adolescents (25.0%), and/or children (21.9%). Figure 1 depicts the primary roles identified by psychologists, with the most common being either a clinician in a hospital who offers/has offered graduate practicum training opportunities (32.3%) or a faculty member in a CPA-accredited university-based clinical psychology training program (31.7%). Among faculty members (n = 52), two-fifths (40.7%) are involved as a supervisor in an on-campus or program-affiliated clinic, while others identified as being in the role of Director of Clinical Training (20.4%), Clinic Director (5.6%), or Department/Program Chair (1.9%). Among hospital-based clinicians (n = 53), one-fifth (19.6%) hold the role of Director of Clinical Training/Practicum Director.

3.2 Teaching

Among the 164 respondents, a third (36.0%) indicated being involved in teaching courses related to clinical psychology or cognitive assessment, with the majority involved in teaching graduate courses only (70.0%), while one-quarter (26.0%) teach both undergraduate and graduate classes in this area. Most respondents (80.0%) indicated their course(s) typically involve or require a practical or hands-on learning component.

When psychologists were asked how they have adapted/considered adapting their teaching to comply with physical distancing requirements in their jurisdiction, over half (54.0%)

indicated teaching is/will be conducted entirely remotely (e.g., via videoconferencing), a third (34.0%) said it is/will be in a blended format (virtual and in-person), and 2.0% said teaching is/will be postponed. Of the 10.0% that indicated "Other", respondents mostly described consideration of a blended teaching format but with possible postponement of the in-person teaching components until safe to do so. A third (34.0%) of respondents indicated that the decisions regarding teaching adaptations were either imposed by institutions while just over a quarter (28.0%) said decisions were made in collaboration with clinical leaders (e.g., Chairs, Directors of Clinical Training). A number of respondents (16.0%) indicated "Other" and described decisions being made in collaboration with both clinical and non-clinical individuals within their institutions or that decisions will be made at a later date. A minority of responses indicated decisions were either made in collaboration with other clinical instructors (8.0%) or individually (4.0%). When asked to rate their preparedness for adapting clinical teaching in the 2020–2021 academic year, there was an equal split between psychologists feeling either *adequately prepared* (42.0%) or *not well prepared* (42.0%), with fewer on the extreme ends (*very unprepared* [8.0%], *very well prepared* [4.0%]), or not teaching (4.0%).

Respondents were asked to rank order (from most to least important) their *biggest barriers* related to effectively carrying out their teaching duties, and responses revealed a high degree of variation in what psychologists identified as being the most important. While the number one reported barrier was *insufficient knowledge of remote clinical assessment methods*, a closely ranked second barrier was *inadequate guidance from institutional authorities.* The full range of ranked responses is included in Table S1 along with the most commonly reported responses regarding what resources are needed for teaching and how public health and/or institutional restrictions have interfered with teaching needs (Figure 2). Respondents were also

asked to rank order (from most to least important) their *biggest concerns* related to teaching clinical assessment courses in a modified format. There was somewhat less heterogeneity in responses to this item, with the number one concern related to *ability to effectively meet original course objectives*, and the number two most frequently ranked concern being *ability to adequately prepare students for clinical practica.* Health and safety risks, and test security or copyright issues were less frequently endorsed as concerns (Figure 3). Full rankings are outlined in Table S2.

3.3 Training/Supervision

Over three-quarters (77.4%) of psychologists were involved in providing clinical assessment training and supervision as part of a practicum or internship placement. About half (51.4%) of these psychologists work at both practica and internship sites, 38.3% at practica sites only, and 10.3% at internship sites only. The primary settings that psychologists train and supervise students in is depicted in Figure 4, with one out of two (53.3%) working in a hospital or other publicly-funded healthcare centre. Nearly all respondents stated their training and supervision activities involve direct patient/client contact (99.1%). When asked how prepared they feel to adapt their clinical assessment training and supervision of students in the 2020–2021 academic year, respondents most commonly said they felt *adequately prepared* (44.9%) or *not well prepared* (37.4%), with fewer extreme ratings (*very unprepared* [5.6%]; *very well prepared* [4.7%]). The remaining 7.5% indicated that they will not be training or supervising students at this time.

When psychologists were asked about how they have adapted/considered adapting their clinical assessment training and supervision to comply with physical distancing requirements in their jurisdiction, over half (57.0%) of them said that it will occur in a blended format (e.g.,

virtual and in-person). Fewer respondents said that training and supervision will take place entirely remotely (e.g., videoconference; 16.8%), or that it will not be offered until in-person training and supervision can take place again (7.5%). One-tenth (10.3%) endorsed the "Other" option, with most describing that they were undecided or awaiting confirmation from institutions. Decisions regarding adaptations to clinical assessment training and supervision were made in a variety of ways, including in collaboration with clinical leaders (29.0%) or with other practitioners (16.8%), imposed by institutions (16.8%), or on an individual basis (2.8%). One-fifth (19.6%) responded "Other" and described that it was a combination of the above and, in some cases, decisions were made differently for clinical assessment training versus supervision activities.

Respondents were also asked to rank order (from most to least important) their *biggest barriers* related to effectively carrying out their clinical assessment training and supervision at this time. The number one endorsed barrier was *clinic or clinical service closures.* The frequency of endorsement of other barriers was fairly evenly distributed, with the next most important barriers being *students are restricted from training on-site*, followed by *inadequate resources (e.g., technological, personal protective equipment* [*PPE]).* Respondents often described needing more of the following resources: digital assessment tools and equipment, funding to purchase digital tools/equipment, PPE, testing space, and staff support. Ranked responses are further summarized in Figure 5 and Table S3. When asked to rank order (from most to least important) their *biggest concerns* related to clinical assessment training and supervision given the adaptations that have been considered/made, the most frequent concern was *ability to effectively train and evaluate students on standardized assessment methods/threats to assessment validity*.

The second most frequent concern was *health safety risks to myself, students, and/or clients/patients* (see Figure 6). A full summary of ranked responses is presented in Table S4.

Respondents were also asked how expectations about student training should be adjusted given the current barriers to in-person clinical assessment training and were provided with an array of options to rank order (from most to least important). Respondents most commonly asserted that they felt students could be expected to have *fewer clinical hours for practica and internship*, and secondly that students should *gain foundational competency in tele-psychology assessment procedures.* Respondents indicated that it was relatively less important to expect that students receive *greater emphasis on theoretical components and less experience with practical components in first year assessment classes*, and less important that we expect students to gain *knowledge of the ethics of tele-psychology.* Among those who endorsed the "Other" option, responses were mixed indicating a diversity of perspectives on this issue. While some respondents indicated that internship should not be delayed, others indicated that the quality of training should not be lowered and therefore students' progress may need to be delayed before they advance to the next stage of training. The ethical issue of supervisors not being adequately prepared to train students in tele-psychology was also raised.

3.4 Qualitative Themes

For each of the three open-ended questions, responses were categorized into core themes, with several themes overlapping across survey items. A description of each identified theme as it relates to each question is provided below and listed in order based on the number of responses that contributed to each theme (from most to least.) A summary of the number of responses per theme is provided in Table 3.

3.4.1 Useful strategies and tools

Five main themes were identified for the item "Describe any other strategies you are using or considering at this time to manage clinical assessment training issues. In particular, are there any tools that have been particularly useful that you would like to share with others?"

3.4.1.1. Technology. Most psychologists reported using different types of videoconference software to provide clinical services (e.g., Zoom, Ontario Telemedicine Network, Jane Practice Management software). Some psychologists reported using the online resource library from test publishers (e.g., pre-recorded webinars, Pearson's Q-Global resource library).

3.4.1.2. Assessment protocol changes/challenges. A number of psychologists expressed that they are not conducting specific types of assessments (e.g., "At this time in my practice, I cannot conduct Learning Disability, ADHD and Autism related assessments, therefore, I am not able to offer any training") or are switching to other types of assessments (e.g., "Many types of assessment have been able to happen via telehealth (diagnostic interviews, questionnaires) but manipulatives have not.") Lastly, several respondents reported using a hybrid approach "where testing is done in-person, masked, with a plexiglass tabletop screen, and interviewing, feedback, and supervision are done virtually."

3.4.1.3. Training adjustments. Psychologists reported using old case material to teach students how to score, write reports, and conceptualize cases. In addition, psychologists shared that students will observe virtual assessments, participate in mock interviews, and/or watch webinars that will help students learn how to administer tests.

3.4.1.4. Program/internship adjustments. Responses within this theme were more varied, but generally respondent strategies/tools included: a) reducing the number of trainees for next year; b) emphasizing the teaching of assessment theory and/or delaying practical

components until later in the semester; and c) facilitating assessment experience as part of inpatient rotations.

3.4.1.5. Administrative burden/challenge. Most respondents reported that they are still in the planning stage and/or waiting to hear from their respective institutions or regulatory bodies as to the best avenues with respect to conducting psychological assessment activities.

3.4.2 Overcoming barriers

Five main themes were also identified for the item "Describe any other barriers you have encountered at this time in relation to clinical assessment training issues. In particular, how have you overcome these barriers?"

3.4.2.1. Assessment protocol changes/challenges. Several respondents reported a lack of funding to purchase equipment (e.g., plexiglass, online tests/questionnaires, tablets), and security or copyright issues related to acquiring digital assessment tools, in order to provide physically distanced or remote assessment experiences to trainees. In addition, some reported that they have stopped providing any clinical assessment services altogether due to the lack of resources. Respondents working clinically with children and seniors also indicated significant concerns with respect to validity of remote or online assessments, with some indicating they have decided to stop providing this type of service, further impacting associated clinical training opportunities.

3.4.2.2. Administrative burden/challenge. Overall, respondents indicated experiencing a significant administrative burden related to adapting assessment activities (e.g., devising safety plans, purchasing supplies, managing e-mails and scheduling). Some respondents reported that their institutions and/or professional regulatory bodies are not providing adequate recommendations or guidance with respect to re-opening services.

3.4.2.3. In-person training challenges. Respondents shared that it is difficult to continue offering services while maintaining health and safety due to inadequate physical space (e.g., "because of the restrictions in number of people in the office, we cannot offer students office space or sit in on client sessions and do[*not*] have the technology to support them.") Others indicated that practicum students are restricted from accessing sites, whereas interns are able to continue onsite training. Lastly, several respondents noted needing to address student stress and anxiety in relation to their training activities under the current circumstances.

3.4.2.4. Training adjustments. A concern emerged that it has been difficult to provide training experiences in tele-assessment because psychologists feel they need to first master these skills themselves and feel that students need to acquire foundational skills in standardized in-person test administration. Some respondents reported a need to prioritize training opportunities for senior students and/or interns due to the logistics of space restrictions and related COVID-19 health and safety protocols. In some cases, practica have been delayed, and some respondents indicated they will aim to offer concentrated assessment training opportunities to make up for lost time.

3.4.2.5. Uncertainty in how to provide proper training. The majority of respondents indicated barriers to planning and uncertainty around the extent to which they will be able to provide meaningful teaching, training, and supervision experiences in the upcoming academic year due to shifting public health measures and guidelines. Others indicate uncertainty about when training clinics will re-open given contradictory messaging and lack of clear information from institutions. Some respondents also expressed that students are struggling with uncertainty about what their clinical training will look like in the context of a hybrid delivery model.

3.4.3 Meeting needs

Seven main themes were identified in relation to the question: "Describe any other needs you have at this time in relation to managing clinical assessment training issues. In particular, do you have any specific suggestions as to how these needs may be best met?"

3.4.3.1. Assessment protocol changes/challenges. Overall, respondents reported that statements by regulatory bodies and associations with respect to the validity of various assessment training and delivery methods needs to be published as soon as possible. They further indicated the urgent need to conduct more research in the area of tele-assessment so clinicians and patients are reassured that despite completing the assessments online, the validity is not compromised.

3.4.3.2. Technology.[1] Psychologists primarily reported similar suggestions for technology as already mentioned above (section 3.4.1.1). However, respondents also offered that "in-person work is familiar but not necessarily more effective, and that telepsychology is efficient, effective, and good for people's work/life balance and the environment."

3.4.3.3. What can be done to replace direct in-person training. To address the need to meet in-person training requirements, students have been assigned more independent reading, they are observing other psychologists' assessments to gain more experience, and practicing assessment skills with their peers. One respondent mentioned using webinars by the International Neuropsychological Society to provide didactic opportunities to students (i.e., https://www.the-ins.org/education/webinar-ce/).

3.4.3.4. Program/internship adjustments. With respect to internship adjustments, a respondent reported that "academic programs will have to make adjustments to the number of expected training hours for students[…]. Doing so will lessen the stress on both the students and

[1] Tied for number of responses (n = 7) with theme 3—*what can be done to replace direct in-person training.*

the clinical directors." Another noted, "we are just adjusting our expectations and encouraging an environment of patience taking each case individually as we adjust. For us, it seems to be more of a shift in our own attitudes and expectations." In contrast, another respondent said, "Residencies being asked to be flexible in accepting fewer practica training hours of applicants but also being expected to get (potentially under-qualified) residents up to exit criteria and licensing-ready[…] will create strain on supervisors and supervisees." Respondents also suggested that where possible, trainees may want to pause their progress and consider gaining additional experiences before applying for internship.

3.4.3.5. Uncertainty in how to provide proper training.[2] Respondents indicated that "More information is what is needed urgently at this time with September really not that far away if we are required to pivot our assessment course in a substantive manner." At the same time, another respondent noted that although "specific guidelines would be great[…]I think we as a profession are really not there, as is the case for most other professions as well at this point. [*G*]iven our propensity for research though, I think there is an onus on us to quickly increase our level of research on remote assessment as a standard form of practice and training."

3.4.3.6. Ethical issues/concerns. Respondents endorsed significant concerns with respect to how valid the assessment training experiences they can offer will be. Some stated that "students may need to take more time to complete their programs. Sacrificing competency to ensure they graduate at the same pace is not appropriate or ethical. We need to teach trainees to be resilient and to recognize that it is not ethical to forego proper training."

[2] Tied for number of responses (n = 5) with theme 6—*ethical issues/concerns*.

3.4.3.7. In-person training challenges. Similar to the concerns that have already been expressed above (section 3.4.2.3), ensuring the health and safety of students was the primary need identified by respondents.

4.0 Discussion

The primary goal of this survey was to provide a general snapshot of the current state of clinical psychological assessment training in Canada in the COVID-19 era. Our results highlight a number of themes related to the strategies, barriers, concerns, and needs that psychologists are grappling with as they attempt to rapidly and effectively adapt their teaching, training, and supervision activities in these unprecedented times. It was evident that a greater number of respondents said they would be teaching clinical assessment courses entirely remotely versus in a blended format for the 2020–2021 academic year, whereas a blended format for assessment training and supervision (largely occurring in hospitals or other public healthcare centres) was endorsed as the predominant approach. Decisions regarding teaching adaptations seemed to be more commonly imposed by institutions, whereas decisions around adaptations to assessment training and supervision were more often made collaboratively with clinical and non-clinical colleagues, and at different levels of the respective training institutions. The most highly ranked barriers to teaching in a modified format included insufficient knowledge of remote clinical assessment methods and inadequate guidance, which dovetailed with the most pressing concerns being the ability to adequately meet course objectives and to prepare students for their clinical practica. The biggest training and supervision barriers were related to closures of clinical services and onsite restrictions for students. Insufficient access to secure remote networks and other technologies was also noted. Resources were quite limited, with four main categories of

needs identified: funding, PPE, technological equipment, and empirically validated digital assessment tools. Lack of these resources seemed to be related to some of the predominant concerns around training and supervision, which were threats to the validity of assessment and health safety risks. Interestingly, it was noted that when respondents were asked how prepared they felt to modify their teaching, training, and supervision of assessment activities at this juncture, the responses were largely evenly split between feeling prepared and feeling unprepared. There were also mixed perspectives on the extent to which expectations around training requirements should be adjusted.

Thematic analysis of responses to the three open-ended survey items revealed nine key themes overall, some of which partially overlapped across the items. The themes were characterized as: a) assessment protocol changes/challenges; b) administrative burden/challenges; c) ethical issues/concerns; d) in-person training challenges; e) program/internship adjustments; f) uncertainty in how to provide proper training; g) technology; training adjustments; and h) what can be done to replace direct in-person training. Embedded within the themes were descriptions of strategies that psychologists have adopted to overcome barriers and meet clinical training needs.

4.1 Key Considerations for Moving Forward

The scope of the impacts of COVID-19 on clinical psychological assessment training runs broad and deep, placing the field of psychological assessment at a critical crossroad. Indeed, we can either remain paralyzed by our traditional methodologies or we can seize the opportunity for a paradigm shift while capitalizing on the technological zeitgeist that has emerged in recent years. To this end, and in light of our survey findings, we propose four key considerations for

psychologists as we collectively move forward with our assessment training activities in the COVID-19 era and beyond.

4.1.1 Research embedded in clinical practice

It is abundantly clear from the survey results that there are current concerns about threats to assessment validity whenever there is a need to modify in-person standardized practices to accommodate physically distanced (e.g., in-person with protective barriers) or virtual testing. These concerns are a direct product of the lack of psychometrically valid tele-assessment tools and limited empirical evidence to support adaptations to existing tools that rely on in-person administration. Such concerns will necessarily impact our ability to effectively train the next generation of professional psychologists and ensure foundational competency in assessment skills against an evolving technological backdrop. In the most recent critical review of teleneuropsychology practices specifically, there is emergent evidence for good validity of cognitive tests administered virtually to adults (Brearly et al., 2017; Marra et al., 2020). However, this evidence base is far too limited and significantly lags behind current clinical needs, especially in the paediatric domain. If this knowledge-practice gap is not urgently addressed, we risk compromising the integrity of the field as it fails to keep pace with technological growth (Miller & Barr, 2017). Indeed, it is clear that psychologists in many settings are compelled to cautiously move forward with modified procedures at this time, while carefully weighing decisions against our ethical obligations when delivering psychological services electronically (CPA, 2020). Targeted and rigorously designed studies will always be essential to demonstrating the efficacy of new measures and methodologies, but there is now an opportunity to excel this effort by embedding research activities within clinical assessment practices. Psychology clinics affiliated with professional graduate training programs and

community-based clinics (public and private) should consider making adjustments to their consent forms that would allow for retrospective studies and program evaluation to track patient/client outcomes in the context of modified or virtual assessments and how these compare to conventional standardized assessments. Students can be directly engaged with these research activities as part of their assessment training experience, in the spirit of the scientist-practitioner model of training.

4.1.2 Funding structures

Lack of adequate funding for digital tools and equipment was a predominate theme of this survey. In order to keep pace with the digitization of the assessment landscape, we must advocate for support from institutions to ensure that the funding structures are in place to support evolving assessment training needs. *Technology and professional practice* have been identified as among the most pressing needs to consider in the future of professional psychology training, and this coincides with CPA's call for university and practice settings to jointly fund interprofessional education training activities (Mikail & Nicholson, 2019). Such funding should necessarily budget for the purchase of up-to-date digital tools (i.e., test administration software and licenses, secure videoconference platforms etc.) and equipment (i.e., iPads, laptops, document cameras, webcams etc.), and funds to support the maintenance of these resources (i.e., IT support).

With ongoing developments in artificial intelligence and its applications to healthcare, the field of professional psychology could lag even further behind if we do not consider how these advanced technologies interface with our training and practice (e.g., Miller & Barr, 2017; Hagstrom & Maranzan, 2019). Not surprisingly, a recent Canadian survey revealed cost as a major barrier to the integration of advanced technologies in psychology training programs, with

the majority of academic and internship training directors indicating that students do not receive training in the use of technology to deliver clinical care (Hagstrom & Maranzan, 2019). To this end, funding structures should also recognize the need to support continuing education activities related to enhancing technology literacy more broadly for both students and psychologists involved in assessment training. As an example, this could involve financial support to attend specialized workshops and conferences, or to invite experts to provide in-service training on the use of advanced technologies in healthcare. It behooves us to ensure we are well-equipped with the appropriate digital tools, equipment, and knowledge otherwise we risk failing to uphold our professional standards in psychology training.

4.3.3 Coordinated communication within and between university programs and training sites

Another important consideration is the clear need for open and ongoing communication and sharing of methodologies and strategies among professional psychology training programs, practica, and internship sites. At the inter-site level, survey results indicate a high level of uncertainty and concern surrounding barriers to effective teaching and adequate preparation of trainees for practica and internship, as well as mixed opinions as to how expectations for training should be adjusted both in the short- and longer-term. For instance, with hospital training sites indicating a shift towards blended and remote assessment techniques, there will be a need for professional psychology programs to provide training in these types of protocols to ensure students are equipped with the tools they need to fully engage in practica and internship activities. Continued dialog with external training sites will also be important to ensure professional training programs are meeting the needs of students in this respect. In this vein, it may be beneficial for representatives from training programs, practica and internship sites, and regulatory bodies (e.g., CCPPP, CPA, Association of Canadian Psychology Regulatory

Organizations [ACPRO]) to collaboratively develop guidelines for training and competencies in technologically-informed and telehealth practices, including assessment training.

At the local level, maintaining frequent and open dialogue between instructors, supervisors, and administrators of different aspects of professional psychology training (e.g., intervention, assessment, rehabilitation, etc.) is also extremely important to ensure issues specific to each of these practice areas are efficiently monitored and dealt with. With this in mind, it may be prudent for training programs to incorporate subcommittees to advocate and problem-solve issues in relation to each practice area, and include representatives who are faculty members, clinical supervisors, and professional practice leaders. In the context of assessment training and supervision, such a committee could work to ensure that training plans are up-to-date and as adaptable to public health and institutional safety requirements and constraints as possible so that barriers faced at the outset of the pandemic are not renewed during a possible second wave or a future epidemic.

4.4.4 Redefining scope of the field

An overarching theme that has become apparent is the opportunity for the field of psychology, and specifically the subfield of assessment, to examine and re-establish its footing with respect to domain and scope in the context of the ever more rapid (non-abating) digitization of the 21st century. There are a number of important reasons that training and supervision of psychology students not only include, but emphasize incorporation of technology wherever possible, and that practitioners and researchers in the field continue to work to expand their repertoire of valid and accessible assessment technology. It is now clear that technologically-informed psychological practice will not recede into the background, but will be what propels our profession forward, and as such, formal training in technologically-informed assessment will

(and for all intents and purposes, must) become a requirement for asserting competence in this domain (Bilder et al., 2020; Mikail & Nicholson, 2019). Despite this forgone conclusion, recent research indicates that only a small number of training programs in Canada (23% of academic, 36% of internship) report any level of training in the use of technology in mental healthcare (Hagstrom & Maranzan, 2019).

The COVID-19 pandemic has also exposed longstanding systemic racism and social inequalities in its disproportionate impact on the health of marginalized racial groups in the United States and beyond (Devakumar et al., 2020; Tai et al., 2020). These health impacts are compounded by a series of recent events of violence towards, and deaths of, Black Americans that garnered global attention and movement (Devakumar et al., 2020), inciting an urgent call to action within our field to ensure assessment training and services are appropriately inclusive and tailored to diverse client characteristics, and that our assessment tools are intentionally validated for use with diverse groups. Integration of remote assessment techniques is not only relevant during the pandemic but ensures that assessment services can be made available to often underserved individuals such as those in rural and northern communities (Mikail & Nicholson, 2019). These assessment techniques also allow for service provision to those who may have significant hardship attending in-person assessments due to physical or other mental health difficulties.

To a great extent, the fate of cognitive assessment as a subfield may hang in the balance at this juncture. The advent of technological solutions, which are thus far largely untested and not validated in the rigorous way that psychologists insist upon, has been steadily led by persons outside the field of psychology, promising faster and simpler solutions to the questions we aim to answer with our assessments. These automated measures infringe on our scope of practice and

pose a real threat to the field of assessment and to public safety when used by unqualified persons (Miller & Barr, 2017; CPA, 2019). Psychologists must act quickly to validate and adopt more technologically-informed solutions themselves to re-establish footing in this domain. Psychologists have been and continue to be the foremost experts in behavioural measurement, and we must continue to work to ensure that we become those experts in virtual and remote assessments, and that we stand as the innovators of virtual test development moving forward.

5.0 Conclusions

The results of this survey on clinical assessment training issues in the COVID-19 era provide an overall snapshot of the state of the field and key considerations for moving forward as psychologists prepare to adapt teaching, training, and supervision assessment activities. Lack of funding, digital materials, and knowledge of virtual assessment methods is a notable gap in the field and this intersects with ethical issues pertaining to professional training standards. Careful monitoring of these professional training issues in the coming months and years is warranted.

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Table 1

Survey Respondents by Geographic Location in Canada

Province/Territory	n	%
Alberta	13	7.9
British Columbia	19	11.6
Manitoba	4	2.4
New Brunswick	3	1.8
Newfoundland/Labrador	1	0.6
Nova Scotia	7	4.3
Ontario	99	60.4
Quebec	16	9.8
Saskatchewan	2	1.2

Note. $N = 164$.

Table 2

Primary Area(s) of Practice Related to Clinical Assessment Activities

	n	%
Area(s) of Declared Competency		
Clinical	113	46.1
Neuropsychology	70	28.6
Rehabilitation	16	6.5
Forensic/Correctional	9	3.7
Health	8	3.3
Industrial/Organizational	1	0.4
School	20	8.2
Counselling	6	2.5
Other	2	0.8
Client/Patient Group		
Children	77	28.9
Adolescents	88	25.0
Adults	113	32.1
Seniors	42	11.9
Couples	3	0.9
Families	27	7.7
Organizations	2	0.6

Note. $N = 164$. Respondents could select more than one option.

Table 3

Summary of core themes with the number of answers per theme

Core themes	Questions		
	Useful strategies/tools[a]	Overcoming barriers[b]	Meeting needs[c]
Assessment protocol changes/challenges	22	20	15
Administrative burden/challenges	9	16	-
Ethical issues/concerns	-	-	5
In-Person training challenges	-	15	2
Program/internship adjustments	10	-	6
Uncertainty in how to provide proper training	-	9	5
Technology	26	-	7
Training adjustments	10	11	-
What can be done to replace direct in-person training	-	-	7

Note. [a]N = 77; [b]N = 71; [c]N = 47

Figure Captions

Figure 1
Psychologist Roles with Respect to Assessment Training

Figure 2
Barriers to Effectively Carrying Out Teaching Duties Ranked as Most Important

Figure 3
Concerns Related to Teaching in a Modified Format Ranked as Most Important

Figure 4
Psychologist Practice Settings

Figure 5
Barriers to Effectively Carrying Out Clinical Training and Supervision Ranked as Most Important

Figure 6
Concerns Related to Clinical Training and Supervision in a Modified Format Ranked as Most Important