Comparison of Telehealth Related Ethics and Guidelines and a Checklist for Ethical Decision-making in Midst of the COVID-19 Pandemic

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Abstract

Applied Behavior Analysis (ABA) services have been provided primarily in the fields of healthcare and education across various settings using in-person service delivery model. Due to the COVID-19 pandemic, the necessity of and demand for ABA services using telehealth have increased. The purpose of the present paper was to cross-examine the ethical codes and guidelines of different, but related fields of practice, and to discuss potential implications for telehealth-based ABA service delivery. We reviewed the telehealth-specific ethical codes and guidelines of the American Psychological Association, the American Academy of Pediatrics, and the National Association of Social Workers along with the related ABA literature. These organizations addressed several useful and unique ethical concerns that had not been addressed in ABA literature. We also developed a brief checklist for ABA practitioners to evaluate their telehealth readiness by meeting the legal, professional, and ethical requirements of the ABA services.

Keywords: applied behavior analysis, COVID-19, ethics, telehealth, checklist

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Editor's Note

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Introduction

The use of telehealth in the field of behavioral health increased by 68.4% between 2014 and 2016 (Centers for Medicare and Medicaid Services, 2018). With the current global pandemic (COVID-19) and the declared state of emergency in countries around the world, Applied Behavior Analysis (ABA) practitioners are facing challenges to provide quality service (see Colombo et al., in press). Therefore, telehealth is becoming a viable option for providing ABA services for clients. Telehealth is defined as “the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, and public health, and health administration.” (Health Resources and Services Administration, 2019, para. 3).

ABA practitioners always provide ethical, evidence-based practice in accordance with the Behavior Analysts Certification Board's (BACB) Professional and Ethical Compliance Code (hereafter referred to as “BACB Code”), but the use of telehealth during the COVID-19 pandemic might raise unique ethical challenges. Currently, the BACB does not have specific

codes of ethics to address professional and ethical behavior related to telehealth practice.

Although several papers (Pollard et al., 2017; Romani & Schieltz, 2017; Quigley et al., 2019) and organizations (see *Guidelines for Practicing Applied Behavior Analysis During the COVID-19 Pandemic* from Association of Professional Behavior Analysts [APBA], 2020, April 9th; Council of Autism Service Providers [CASP], 2020) discussed different ethical considerations and challenges related to telehealth-based ABA service delivery, consulting other professional organizations' codes and guidelines for telehealth is beneficial in promoting the best practice and preventing unwanted effects of unethical telehealth service in the ABA field.

For the purpose of the present article, we reviewed the American Psychological Association's (APA) *Guidelines for the Practice of Telepsychology* (2013; hereafter referred to as "APA Guidelines"), the American Academy of Pediatrics' (AAP) *Operating Procedures for Pediatric Telehealth* (2017; hereafter referred to as "AAP Procedures"), and the National Association of Social Workers' (NASW) *Standards for Technology in Social Work* (2017; hereafter referred to as "NASW Standards").

We chose these organizations because they are similar in nature to the BACB since they provide in-person services that involve children and families among others, and they had issued the official ethical codes and guidelines specific to telehealth. To our best knowledge, no studies have yet examined the telehealth-specific codes and guidelines of these organizations and discussed them in relation to practice in ABA. Several studies, for example, referred to the APA ethics code (APA, 2010) when addressing ethical considerations for telehealth ABA services (Peterson et al., 2019; Pollard et al., 2017; Romani & Schieltz, 2017), but none of them analyzed the APA's telepsychology guidelines (2013). Therefore, the aim of the present paper was to

cross-examine the ethical codes and guidelines of different, but related fields of practice, and to discuss potential implications for telehealth-based ABA service delivery.

Overview

It is important to note that the present paper's findings are not intended to replace the BACB Code but to assist ABA practitioners in making best clinical and ethical judgement when delivering evidence-based services via telehealth. We organized the AAP, the APA, and the NASW guidelines into seven domains associated with different telehealth practice issues and further divided into specific subdomains (see Table 1). In the process, we identified several subdomains that the current ABA literature on telehealth does not address such as the client's interest in telehealth, the presence of the caregivers during telehealth-based services, testing and assessment issues, providing telehealth in school, etc. In addition, as noted earlier, although the BACB has not yet issued guidelines specifics to telehealth, we found valuable to include the BACB Ethics Code in Table 1 as general practice guideline. Appendix 1 is a checklist that resulted from our study to help facilitate ethical and effective ABA practice using telehealth.

Therapist Suitability

One of the areas of concern for ethically grounded telehealth-based services is therapist suitability. Several BACB Codes (see Table 1) could be broadly applied to evaluate therapist suitability for telehealth. When planning telehealth service, ABA practitioners should assess their own resources first. This section provides four topics that should be considered to support ethical behaviors using telehealth. A particular interest is that the AAP (2017) provides a useful suggestion to current ABA literature by addressing environmental safety concerns for a practitioner.

Training (Competency) on Technology

Before the onset of the telehealth-based services, ABA practitioners should ensure to receive training on technology related to telehealth. The APA Guidelines and the NASW Standards recommend that a practitioner receive appropriate training on the technologies used in telehealth such as the use of a hardware (e.g., computer, camera, microphone, speaker, telephone), a software (e.g., applications, firewall, antivirus, encryption), and the Internet (e.g., bandwidth). This applies to ABA practitioners as well. Although the BACB Code nor the APBA guidelines (2020, April 9th) directly addresses ABA practitioners' competency on technology, several studies recommended that ABA practitioners should be trained on technology necessary for telehealth (Pollard et al., 2017) and on troubleshooting problems (Lee et al., 2015). Moreover, Pollard et al. (2017) proposed that an agency should designate a team of IT professionals to manage technological aspects of the telehealth. Therefore, it is the ethical responsibility of ABA practitioners to obtain necessary training on technology and ensure adequate support systems (for hardware and software issues) prior to implementing telehealth services.

Training (Competency) on Clinical Skills with Telehealth

In addition to competency on technologies, the APA Guidelines is the only one recommending that practitioners should receive training on clinical skills specific to telehealth-based therapy (e.g., the practitioners should familiarize themselves with existing literature on telehealth, seek out the help from an experienced colleague, attend trainings and university courses related to service provision via telehealth, etc.). Likewise, Lerman et al. (2020) indicated that providing ABA service in-person and via telehealth are considered separate areas of expertise. It is an ethical obligation of a practitioner to provide professional services within the boundaries of their competence (BACB Code 1.04[d]). Practicing outside of the scope of

competence not only has the negative consequences for the client but adversely affects ABA practitioners (Brodhead et al., 2018).

There are mainly four areas of clinical competencies in ABA: 1. assessment and testing, 2. supervision/training of the staff who delivers in-person service to a client, 3. direct service with a client, and 4. parent training/coaching. As Lerman et al. (2020) noted, ABA practitioners should not assume that clinical skills we enforce in-person are easily transferable to the telehealth setting. Instead, it is recommended that ABA practitioners acquire the clinical skills for telehealth prior to the onset of the ABA service delivery. In addition, organizations should also provide training on ABA clinical skills and knowledge necessary for telehealth-based services (Pollard et al., 2017). The importance of telehealth-specific training can be seen from the results of Lerman et al. (2020) where the procedural integrity decreased from 100% during the in-person caregiver training to 0% during the first telehealth session. Research on the effectiveness of telehealth-based ABA trainings and different types of assessments can inform the practitioners' competence in decision-making (e.g., Neely et al., 2019; Pollard et al., 2017; Reese et al., 2015; Xie et al., 2013). In conclusion, in order to acquire clinical competency when delivering ABA services remotely, ABA practitioners should seek additional training and be familiar with evidence-based practices related to telehealth.

Environmental Aspects

One of the ethical considerations before and during delivering a telehealth session is the safety of a practitioner's environment. Interestingly, only the AAP Procedures addresses this aspect. Specifically, it recommends that a practitioner should arrange her/his environment so that one can provide telehealth service safely and securely. Based on the AAP Procedures, things to consider are: 1. whether there is any distraction (i.e., noise, other people, etc.), 2. whether the

room meets the recommended standards for privacy and confidentiality (i.e., presence of an unauthorized person in the room, poor noise cancellation of the walls, etc.), 3. whether the client's personal information is visible to others via screen, and 4. whether the client's privacy is protected at the client's end. In ABA, Lerman et al. (2020), for example, suggested that if the agency cannot secure a soundproofed environment, the use of headphones and soft voice, along with scheduling when others are not present in the office could be alternative options for ABA practitioners. Additionally, for ABA practitioners we recommend making the environment physically safe such that when a practitioner engages in some motor actions (e.g., imitation, modeling), there is sufficient space to safely execute the instructions.

Equipment

Another aspect that is relevant to telehealth-based service delivery is that a practitioner should have required equipment (AAP 2017; APA 2013; NASW, 2017). The AAP discusses two types of equipment: equipment that allows telemedicine and equipment for clinical service. It is a concern that equipment used to provide telehealth and therapy is effective and reliable. Several researchers and organizations also recognized the importance of possessing reliable equipment (i.e., hardware, software, etc.) for engaging in ABA telehealth-based services (e.g., CASP, 2020; Lee et al., 2015; Rios et al., 2018). Equipment used in delivering clinical services in ABA could be the materials for the Picture Exchange Communication System (PECS; Frost & Bondy, 1994) and the Verbal Behavior-Milestone Assessment and Placement Program (VB-MAPP; Sundberg, 2008). It is unclear whether a certain ABA therapeutic equipment can be used effectively via telehealth during a direct, 1:1 session (although see Simacek et al., 2017; this point is also discussed in Testing and Assessment section).

Therefore, ABA practitioners should ensure to possess adequate equipment prior the onset and during the telehealth sessions. A practitioner must exercise clinical judgement to assess the effectiveness of the equipment used during the telehealth service.

Client Suitability

Besides evaluating ABA practitioners' suitability, one needs to assess a client's suitability for telehealth as well (e.g., APBA, 2020, April 9th, CASP, 2020). The BACB Code mainly focuses on environmental factors that might interfere with treatment (Table 1). Moreover, Rodriguez (2020) proposed a model to help ABA practitioners determine if a direct, 1:1 telehealth session is suitable for a specific client. To support ABA practitioners to assess a client's suitability for telehealth service, we reviewed several important factors. The AAP (2017) uniquely discusses the presence of the parents during a session and providing telehealth service in school as the topics of concern, which we discussed separately. Ultimately, ABA practitioners decide whether telehealth is a viable option for each client on the individual basis.

Client Interest in Telehealth

Recent articles for the emergency series of Behavior Analysis in Practice (Colombo et al., in press; Cox et al., 2020) discussed ethical decision-making on whether to continue ABA sessions in-person or to shift to telehealth-based ABA sessions during COVID-19 pandemic. Although an important factor in opting for telehealth is the client's and family's interest in remote support, only the APA Guidelines considers whether a patient is interested in receiving treatment via telepsychology. It is important for ABA practitioners to assess a client's preference on telehealth and how they can support the client in overcoming any existing obstacles (e.g., a client and/or caregiver might feel embarrassed because they do not feel they possess adequate technological knowledge). ABA practitioners should empower their clients by informing how

these issues can be resolved (e.g., via technology-based training delivered by ABA practitioners). If a client and/or caregiver does not feel comfortable having a telehealth session even after ABA practitioners review the plan in detail, his/her decision should be respected and a new plan for service delivery should be developed.

Culture

A client's and families' culture always matter when we make ethical decisions in ABA practice (Brodhead, 2019; Rosenberg & Schwartz, 2019). Each organization (AAP, 2017; APA, 2013; NASW, 2017) recognizes the importance of the client's cultural values when assessing suitability, designing, and delivering services via telehealth. Similarly, Pollard et al. (2017) discussed cultural considerations related to ABA telehealth-based services and recommended that ABA practitioners assess potential risks and benefits tied to cultural values. Therefore, ABA practitioners should learn if there are any cultural values and characteristics that could affect implementation and effectiveness of telehealth services. Any cultural factors that could interfere with telehealth services should be discussed at the onset of ABA provision. If there are identified cultural obstacles, ABA practitioners should make every effort to learn about their clients' cultural values and how deliver services with respect to them (BACB Codes 4.03[a] and 4.07).

Equipment

Similar to the discussion on equipment for ABA practitioners, the AAP Procedures, and the NASW Standards discuss that a client also needs to have access to reliable technology (i.e., electronic devices, software, Internet, and technical support) for effective telehealth (see also CASP, 2020). Additionally, Romani and Schieltz (2017) conducted the equipment needs assessment to determine if the family had appropriate equipment before starting an ABA telehealth-based session. Therefore, ABA practitioners should, at the onset of the telehealth

services, identify if the client's family has access to reliable technology, and, if not, reassess if ABA telehealth-based service is suitable for the client. During the COVID-19 pandemic, the use of popular applications such as Apple FaceTime, Facebook Messenger video chat, Google Hangouts video chat, and Skype are allowed temporarily (U.S. Department of Health and Human Services, 2020, March 17th).

Familiarity with Technology

If ABA practitioners determine that telehealth service is a viable option, the next step is to assess the client's and/or caregiver's familiarity with technology. For example, the NASW Standards and the APA Guidelines state that a practitioner should evaluate the client's relationship with and knowledge of technology (e.g., attitude, resistance, fluency, etc.). Romani and Schieltz (2017) recognized the importance of this aspect and they familiarized the client's mother with Skype during the telehealth sessions. Thus, it is safe to say that ABA practitioners, before the onset of ABA telehealth sessions, should assess the client's and/or caregiver's familiarity with the technology and whether they have any prior experience with the specific software that will be used for the remote sessions. If the client and/or caregiver does not possess adequate knowledge, ABA practitioners should provide resources (e.g., a user-friendly guide, video-modeling, synchronized training) to the family on how to operate specific technology related to telehealth.

Environment Suitability for Session

It is also important to discuss ethical standards for environment suitability on the part of the client in telehealth (Lerman et al., 2020). Both the AAP Procedures and the APA Guidelines recognize that not only the providers need to have a suitable environment but also the client. For example, the APA Guidelines suggests that the environment should not have any distraction,

should be private, and suitable for telepsychology. Given that the schools are currently closed across the United States amid COVID-19 pandemic, adhering to this ethical standard might be challenging since it is conceivable that an unauthorized person might be at home when a client is having a session or making it harder to maintain a quiet and distraction-free environment. However, ABA practitioners should always acknowledge environmental conditions that may interfere with the implementation and, jointly with family, develop a plan for suitable and secure telehealth service delivery as well as to minimize interferences.

Safety

The APA Guidelines gives a unique contribution by addressing safety of a client and his/her environment in a clinical telehealth encounter. Two aspects can be taken into consideration: 1. physical safety of the environment and 2. the client's safety and safety of others. For the physical safety, CASP (2020) provides a checklist that assesses the environmental and safety aspects of the service delivery settings. Therefore, ABA practitioners, before the onset of the telehealth services, should assess if there are any safety concerns in the physical environment (e.g., sharp objects, cleaning supplies, etc.), which should be removed before the sessions (Lerman et al., 2020).

Second, ABA practitioners are encouraged to evaluate the suitability of telehealth for the clients with severe problem behaviors (Lerman et al., 2020; Pollard et al., 2017; Romani & Schieltz, 2017) to ensure the safety of the clients and others. ABA practitioners should assess their behavior management plans for the potential occurrence of problem behavior and whether it is safe to engage in and proceed with the telehealth-based service setting (Peterson et al., 2019).

Caregiver Availability/Presence

The AAP (2017) made a unique contribution by discussing the presence of the parents during telehealth clinical encounters. None of the other evaluated organizations addressed parental presence in their ethical code or guidelines (see Table 1). The AAP Procedures suggests that practitioners should secure a means to communicate with a caregiver before the onset of each telehealth session in order for a caregiver to participate in a session when a client is a minor, in a case of emergency, and to report the results of the session. This is a useful suggestion for ABA practitioners such that they could discuss with the caretakers how to ensure their presence during direct services. Both ABA practitioners and caregivers should have a clear understanding and plan for the caregivers' presence and their role during telehealth sessions.

School Health Services

Another aspect that only the AAP Procedures acknowledges is telehealth services that occur in school settings. Specifically, the AAP Procedures states that one should develop a specific guidance on school-based telehealth service given Healthcare Insurance Portability and Accountability Act (HIPAA) and the Family Educational Rights and Privacy Act (FERPA) regulations as such service involves more people in school settings than at home.

With the school closures across the United States due to the pandemic, there may be a possibility for ABA practitioners to provide services for the students via telehealth at school. The types of ABA services might include supporting and training teachers and staff in addition to direct service to students via telehealth. Various reported school-related ABA telehealth practice are available. For example, Neely et al., (2019) found a pyramidal staff training via telehealth effective in teaching students to mand. ABA practitioners should check their local regulations and laws as well as with school personnel on how to support their students in such circumstances.

Standards of Care in the Delivery of Telehealth Services

In the midst of the Covid-19 pandemic, one potential benefit of telehealth as opposed to in-person service is to be able to continue providing ABA services while adhering to the state and national stay-at-home orders. ABA practitioners should ensure that ethical and professional standards of care are met (BACB Code 2.0) and the same level of quality work (BACB Code 1.04[c]) and adherence to legal and ethical standards (BACB Code 1.04[d]) should characterize telehealth-based ABA service delivery as well. In accordance with the APA Guidelines and CASP (2020), ABA practitioners should continually assess the potential risks (i.e., confidentiality, emergency management) and benefits (i.e., availability of care) of providing ABA service via telehealth for a given client from the onset of the service to the termination of the service in order to maintain the standards of care.

Reliance on Scientific Evidence for Using Telehealth with Client

ABA practitioners should always make clinical judgements based on empirically derived knowledge (BACB Code 1.01). The APA Guidelines discuss two aspects of evidence-based telehealth practice: 1. the types of clinical interventions effective in telehealth and 2. the types of telecommunication technologies effective in delivering telehealth services (i.e., videoconferencing, a phone, an email, etc.), and recommends to look for scientific evidence for the effectiveness of both types. Furthermore, the APA Guidelines cautions that the lack of evidence of effectiveness should not necessarily be the reason for the denial of the telehealth service as each practitioner should make the best clinical judgement at a given situation. On the other hand, the AAP Procedures and the NASW Standards do not discuss this aspect as specific to telehealth. ABA is unique in emphasizing evidence-based interventions and various studies have shown the effectiveness of telehealth-based interventions when working with caregivers

(Reese et al., 2015; Xie et al., 2013; see Unholz-Bowden et al., 2020 for a review), training direct service providers (Neely et al., 2019; Pollard et al., 2017) and parent coaching with Functional Analysis (FA; Lee et al., 2015; Romani & Schieltz, 2017). ABA practitioners should become familiar with the available resources and apply the best clinical judgement when providing behavior analytic service via telehealth.

Continuity of Care and Termination of Services

ABA practitioners should continuously monitor the progress and well-being of their clients in the course of telehealth-based service and terminate or modify as needed. The APA Guidelines and the AAP Procedures discuss the necessity of assessing the continuity and the termination of care on a regular basis in order to maintain quality service in telehealth. It is noted that ABA practitioners are in a unique position compared to these professionals in that the frequency and the duration of telehealth sessions are higher. Thus, it is important for ABA practitioners to monitor and assess the client's well-being even more closely in the course of the treatment.

Emergency Planning

All the organizations emphasize the need of an emergency plan due to the nature of telehealth-based service (AAP 2017; APA 2013; NASW, 2017). They discuss emergency planning in different phases. A practitioner should first assess whether a given client is appropriate for telehealth service (see the client suitability section). During the service, a practitioner should also ensure the availability of and access to resources such as in-person support staff, a caregiver, and emergency personnel in a local community. The AAP Procedures and the NASW Standards also recommend that a practitioner should be prepared for equipment failure by ensuring the availability of a technical support plan and a contingency plan. Likewise,

for ABA practitioners, Pollard et al. (2017) and Romani and Schieltz (2017) recommended assessing, developing, and sharing an emergency plan for telehealth service for problem behavior. Peterson et al. (2019) also recommend having a plan in place for Internet connection disruption. Thus, ABA practitioners should develop an emergency plan that includes not only problem behavior issues but also medical, legal, and technological issues as well.

Informed Consent

ABA practitioners should acquire consent for the diverse activities included in the telehealth-based services as well as in the applicable laws and regulations related to telehealth. Peterson et al. (2019) noted three aspects when a client consent is required during ABA services: 1. consent for providing services via telehealth, 2. consent for audio or video recording of the sessions (if applicable), and 3. consent for the functional behavior assessment (FBA). The BACB requires a client consent in various conditions as well (BACB Codes 2.03[a], 2.05[c], 2.08, 2.15[e], 3.01[a], 3.03, 3.05, 4.02, 8.04[b], 9.03). Thus, ABA practitioners should obtain consent specific to telehealth services as well.

Informed Consent for Telehealth

Our review found that all the organizations' telehealth codes and guidelines require that the client be informed of the service delivery via telehealth highlighting the potential benefits and risks associated with it such as risks pertaining to the hardware and software and arrangements required to deliver services prior to engaging in telehealth activities (AAP 2017; APA 2013; NASW, 2017). Furthermore, it is required to obtain a client's consent for 1. the telehealth-based services, 2. potential confidentiality and privacy related risks, 3. sharing information with other parties, and 4. data management. The AAP Procedures, in addition, requires informed consent from clients in terms of recording of the clinician and client meetings,

age related health decisions, emergency services, and school settings. Moreover, they highlight that a consent should be clear and comprehensive, culturally sensitive, and should include the rights and responsibilities of involved parties. The same should apply to telehealth-based ABA service as well. If the client suitability assessment indicates that the client would benefit from telehealth, the client and/or caregivers should be informed about specific treatment plans via telehealth (i.e., frequency and duration of service, type of services, equipment, etc.) and whether ABA practitioners need to make any modifications to the existing programs if this was a shift from in-person practice (i.e., some in-person programs might need to be put on-hold or parents will need to directly implement skill acquisition programs). Peterson et al. (2017) suggested that special intervention programs should be developed to match the unique needs of the client while providing behavior analytic services via telehealth. Caregivers should always be informed about treatment changes and agree with consent.

Another aspect to the telehealth-related consent is that employing telehealth in behavior intervention programs may require consent to disclose confidential data to third parties in case of emergency (APA, 2013; AAP, 2017). The use of a third-party owned platforms (e.g., telehealth service applications) and software (e.g. browsers, online applications, video recording software) may require a separate consent to the related parties directly from the client or a caregiver prior to installation (e.g. Zoom, WebEx for healthcare). ABA practitioners should provide information on how the client's privacy and confidentiality will be ensured while delivering telehealth services using third-party controlled equipment (e.g., rented equipment, online applications; NASW, 2017). Thus, ABA practitioners should get familiar with the state mandated laws and regulation and obtain informed consent from the client and/or caregivers for disclosing any type of information (unless otherwise mandated by a law) as well as data intended for scientific or

educational purposes. In a case when ABA practitioners are required (i.e., by the insurer, organization) to record the telehealth sessions, the state mandated laws should be observed and consented with the client (Rodriguez, et al., 2015). The confidentiality aspects (i.e., encryption of transmission, storage, and disposal) of the recording should be disclosed to the client (AAP, 2017, NASW 2017). CASP (2020) Appendix F provides a comprehensive consent form for telehealth services including the service delivery related risks and benefits as well as data-management-related aspects.

Billing Documentation

All the assessed telehealth guidelines and codes noted the necessity of the client's consent for billing purposes (AAP 2017; APA 2013; NASW, 2017). ABA practitioners should disclose the billing arrangements prior to the commencement of the intervention and acquire consent for it. Furthermore, the practitioners should specify the type of services (i.e., telephone, texting, email, video consultation, emergency scheduling) and the charges incurred when services may be disrupted due to technical or other issues (APA, 2013). Additionally, CASP (2020) provides a detailed description of service types and billing codes related to telehealth modality that may help the ABA practitioners to employ the appropriate codes for their services.

Data Confidentiality

Telehealth provides a unique situation to confidentiality due to its technology and environments. The APA Guidelines defines confidentiality as the “principle that data or information is not made available or disclosed to unauthorized persons or processes. The terms *security* and *security measures* are terms that encompass all of the administrative, physical, and technical safeguards in an information system.” (p. 792). Although the BACB Code covers this aspect in general including the use of social media, telehealth-based service delivery can bring

additional risks for data breach, which ABA practitioners should be familiar with as well as to know how to prevent it.

Risks to Client Confidentiality

ABA practitioners should be aware that the use of telehealth might bring unique and unexpected risks to loss of confidentiality. APA Guidelines lists a number of potential risks such as the use of search engines, participation in social networking sites, inappropriate and/or inadvertent breaches to established security methods, others gaining access to electronic communications (e.g., telephone, email), and therapist-client boundary issues. In addition to being competent on technologies, ABA practitioners need to both inform the clients of the potential risks and make the best effort to reduce those risks. In addition, it is possible that such risks occur both during and outside the telehealth sessions. If the practitioner encounters a situation where the client's privacy is at risk such as an unauthorized person is present during the session, the practitioner needs to either terminate the session or change the location so that the client's privacy is protected (AAP, 2017). If a recorded session has to be shared with other providers for the purpose of care coordination, a practitioner must comply with the state and federal laws as well as to send the documents via secure, encrypted means (AAP, 2017). This requirement applies to ABA practitioners when engaging asynchronous observation methods (e.g., Pollard et al., 2017). ABA practitioners need to be familiar with all of the risks above and should discuss with the clients and their families.

Security, Transmission, and Disposal of Confidential Information

ABA practitioners must comply with the HIPAA and Health Information Technology for Economic and Clinical Health guidelines in terms of data management, transmission, storage, and disposal specific to telehealth. All the assessed telehealth guidelines address that the

practitioners should take appropriate precautions when sensitive client information is transmitted or stored as well as the need for organizational policies to protect sensitive data and restrict such data from unauthorized access (AAP 2017; APA 2013; NASW, 2017). ABA practitioners, prior to and during engaging in telehealth services, should ensure the availability of secure data management means (i.e., encrypting software, HIPAA compliant devices and software, firewalls, up-to-date virus protection, etc.) in order to gather, transmit, and store client-related information. In case of compromised data, the organizations and the practitioners must notify the client advising on the nature of the breach and appropriate actions must be taken (NASW, 2017; APA, 2013).

Testing and Assessment

The testing and assessment domain is unique in the APA Guidelines. For psychologists, it is a concern whether the validity and reliability of testing and assessments can be sustained when used via telehealth. Although the assessment and testing tools used in ABA are not of the same nature as the many used by psychologists, it is still a concern whether or not various ABA assessment tools and their results are valid when used in telehealth especially during a direct service with a client. Since most ABA assessments are designed and validated as in-person tools, ABA practitioners should be aware of the limitations and possible challenges that might arise during the administration of such tools via telehealth. A practitioner needs to use caution when administering assessments such as Functional Analysis, criterion-referenced skill assessment tools such as VB-MAPP (Sundberg, 2008) and Assessment of Functional Living Skills (Partington & Mueller, 2012), and preference and reinforcer assessments. Currently, the studies validating the direct implementation of ABA assessments via telehealth are scarce (that is, a practitioner herself/himself implements an assessment with a client via telehealth without the aid

of another person physically present with the client). In contrast, the effectiveness of telehealth-based parent-coaching FA assessments have been documented (e.g., Machalicek et al., 2009; Romani & Schieltz, 2017; Wacker et al., 2013). ABA practitioners should use the best clinical judgement when administering such assessments remotely.

Legal Aspects

Before the onset of the telehealth-based ABA services, ABA practitioners should be mindful of the federal and state mandated laws related to the telehealth and whether the state they practice requires a specific licensure or certificate for delivering services using telehealth (APBA, 2020, March 9th). Although the BACB Code does not explicitly cover licensing and jurisdiction for telehealth, ABA practitioners should adhere to the BACB Code 1.04(d). Notably, each organization (AAP, 2017; APA, 2013; NASW, 2017) acknowledges that it is a practitioner's responsibility to get familiar with the state and federal laws and comply with regulations.

If ABA services via telehealth is permitted, it is the responsibility of ABA practitioners to learn what types of services can be funded (e.g., services provided by a registered behavior technician, a behavior analyst, direct service, and parent training). Also, ABA practitioners should check with their employer if delivering ABA services via telehealth is covered by liability insurance. Pollard et al. (2017) noted that if a practitioner plans on providing telehealth in a state that requires licensure, then a practitioner should obtain it before the onset of the telehealth services.

The APA Guidelines also addresses ethics pertaining to interjurisdictional practice. If a provider and a client are in different jurisdictions, it is the provider's responsibility to do research and comply with regulations and laws in both jurisdictions. Moreover, a practitioner should consult

the state and the local jurisdiction's regulatory boards to determine if interjurisdictional practice is allowed and if funding sources will cover the provided services.

Conclusion

In the midst of the COVID-19 pandemic, telehealth is becoming a viable option for providing ABA service for clients. Although ABA practitioners always deliver ethical, evidence-based practice that “operate in the best interest of clients” (BACB Code 2.0), the use of telehealth might raise unique ethical challenges. In order to identify and address some of the potential challenges in telehealth, we have reviewed the ethical standards and guidelines of the AAP, the APA, and the NASW along with the existing ABA literature that are specific to telehealth. We identified several issues that these organizations’ guidelines and codes addressed that are missing in current ABA literature such as the client interest in telehealth, the presence of the caregivers, testing and assessment, and providing telehealth in schools (Table 1). Our analysis yielded seven domains that should be taken into consideration to ensure ethically grounded telehealth-based ABA services. In addition, we developed a checklist that resulted from our discussion in this paper to help facilitate ethical and effective ABA practice using telehealth (Appendix 1). The body of literature discussing ethical and practical aspects of telehealth services in ABA is continuously increasing, yielding valuable information for making the best and ethical clinical judgement in practice. ABA practitioners should continue to familiarize themselves with the most current findings and validated intervention methods to ensure the effectiveness of their service when using telehealth.

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Table 1

The comparison of ethical codes and guidelines across the American Psychological Association (APA), American Academy of Pediatrics (AAP), National Association of Social Workers (NASW), and the Behavior Analysts Certification Board (BACB)

Domain	Subdomains	Organizations			
		APA	AAP	NASW	BACB
Therapist suitability	Training (Competency) on Technology	Guideline 1	N/A	Standard 2.06, 2.23	8.04 (a) - Media Presentations and Media-Based Services
	Training (Competency) on Clinical Skills with Telehealth	Guideline 1	N/A	N/A	1.02 - Boundaries of Competence, 1.03 - Maintaining Competence through Professional Development
	Environmental Aspects	N/A	Environment 1	Standard 2.18	4.07 (b) - Environmental Conditions that Interfere with Implementation
	Equipment	Guideline 7	Equipment 3, 5, 6	Standard 2.21	4.07 (b) - Environmental Conditions that Interfere with Implementation
Client suitability	Client Interest in Telehealth	Guideline 1, 2	N/A	N/A	N/A
	Culture	Guideline 1, 2, 3, 7	Patient Safety 2	Standard 2.06, 2.20,	1.05 (c) - Professional and Scientific Relationships
	Equipment	N/A	N/A	Standard 2.21	4.07 (b) - Environmental Conditions that Interfere with Implementation
	Familiarity with Technology	Guideline 2	N/A	Standard 2.01, 2.05	N/A
	Environment Suitability for Session	Guideline, 2	Environment 2	N/A	4.07 (b) - Environmental Conditions that Interfere with Implementation
	Safety	Guideline 2	N/A	N/A	4.07 (b) - Environmental Conditions that Interfere with Implementation
	Caregiver Availability/Presence	N/A	Parental/legal Representative Presence 1	N/A	N/A
	School Health Services	N/A	Special Considerations and Environment 1, 2	N/A	N/A
	Reliance on Scientific Evidence for Using Telehealth with Client	Guideline 1, 2	N/A	N/A	1.01- Reliance on Scientific Knowledge, 2.09 (d) - Treatment/Intervention Efficacy

Domain	Subdomains	Organizations			
		APA	AAP	NASW	BACB
Standards of Care in the Delivery of Telehealth Services	Continuity of Care and Termination of Services	Guideline 2	Patient Safety 1	N/A	2.15 - Interrupting or Discontinuing Services, 4.11 - Discontinuing Behavior-Change Programs and Behavior-Analytic Services
	Emergency Planning	Guideline 1, 2	Emergency contingencies 1-4 Equipment 4	Standard 2.12, 2.13	7.02 (b) - Ethical Violations by Others and Risk of Harm
Informed Consent	Informed Consent for Telehealth	Guideline 3	Privacy and confidentiality 1, 3, Informed consent 1-2, 4, Special considerations and environments 2.1-2.2, 2.4.3,	Standard, 2.04, 2.22, 3.01, 3.07	1.05 (b) - Professional and Scientific Relationships, 2.03 (a) - Consultation, 2.05 (c) (d) - Rights and Prerogatives of Clients, 2.08 Disclosures, 2.15 (e) - Interrupting or Discontinuing Services, 3.03 - Behavior-Analytic Assessment Consent, 3.05 - Consent-Client Records, 4.02 - Involving Clients in Planning and Consent, 4.04 Approving Behavior-Change Programs
	Billing Documentation	Guideline 3	Informed consent 1	N/A	2.12 (b) - Contracts, Fees, and Financial Arrangements, 2.13 Accuracy in Billing Reports
Data Confidentiality	Risks to Client Confidentiality	Guideline 2, 3, 4, 5	Patient privacy and confidentiality 1, 2, 4, Informed consent 1, Patient safety 4, Equipment 5	Standard 2.07, 2.11, 2.18, 3.03, 3.04, 3.05, 3.08	2.04 (a) - Third-Party Involvement in Services, 2.06 - Maintaining Confidentiality, 2.07 (a) - Maintaining Records
	Security, Transmission, and Disposal of Confidential Information	Guideline 5, 6	Patient safety 4, Patient Privacy and Confidentiality 4	Standard 3.02, 3.03, 3.04, 3.13, 3.14	2.07 - Maintaining Records, 2.11 - Records and Data, 8.04 (a) - Media Presentations and Media-Based Services
Testing and Assessment	Testing and Assessment	Guideline 7	N/A	N/A	3.01 (a) - Behavior-Analytic Assessment
Legal Aspects	Licensing and Jurisdictional Practice for Telehealth	Guideline 3, 8	Provider considerations 1-2, Legal and regulatory considerations	Standard 2.02, 2.03	1.04 (d) - Integrity

Appendix

A Checklist for Delivering Ethical ABA Services via Telehealth	
Therapist Suitability	Yes/No
Did the practitioner attend training on technology related to telehealth (hardware, software, camera, etc.)?	
Did the practitioner attend training, obtain supervision, and/or review literature related to telehealth-specific ABA interventions (supervision, direct service, parent training, assessment)?	
Is the practitioner's environment safe (distraction, privacy, physical safety) to conduct a telehealth session?	
Does the practitioner have necessary equipment (hardware, software, Internet, etc.) for delivering telehealth?	
Client Suitability	Yes/No
Is the client/caregiver interested in telehealth-based ABA service?	
Did the practitioner take into consideration the client's culture in proposing telehealth-based service?	
Does the client/caregiver have necessary equipment for receiving telehealth?	
Is the client/caregiver familiar with the telehealth technology?	
Is the client's environment suitable (distraction, privacy) for the telehealth-based sessions?	
Is the client's environment safe (physical safety, safe from harm) for the telehealth-based sessions?	
Can the caregiver be present during the session?	
Standards of Care in the Delivery of Telepsychology Services	Yes/No
Did the practitioner identify the risks and benefits of telehealth service as opposed to in-person service?	
Does the practitioner regularly assess the effectiveness of the telehealth interventions and the well-being of the client?	
Did the practitioner make necessary modification to the existing treatment plan to fit the telehealth-based service?	
Did the practitioner develop an emergency plan that includes resources for behavioral, medical, legal, and technological issues?	
Informed Consent	Yes/No
Does a consent include information related to the risks and benefits of telehealth-based service such as confidentiality?	
Does a consent include information about ABA service provision via telehealth including billing?	
Does the client and/or caregiver provide consent for participation in telehealth-based services?	

Data Confidentiality	Yes/No
Did the practitioner explain the risks of loss of confidentiality with the client/family?	
Did the practitioner make a reasonable effort to ensure the security of data storage, transmission, and disposal?	
Legal aspects	Yes/No
Does the practitioner have adequate knowledge on the laws and regulation related to telehealth?	
Are telehealth-based services allowed in a state in which the practitioner provides ABA services and the client receiving it (jurisdictional and interjurisdictional)?	
Does the practitioner possess necessary telehealth-related licensure to practice?	
Does the practitioner have adequate knowledge on funding sources and liability insurance related to telehealth?	