



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

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Abstract

Applied behavior analysis (ABA) services have been provided primarily in the fields of health care and education across various settings using an 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 article 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 have 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 ABA services.

Keywords Applied behavior analysis · Checklist · COVID-19 · Ethics · Telehealth

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). Given 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, Wallace, & Taylor, 2020). 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, 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 *Professional and Ethical Compliance Code for Behavior Analysts* of the Behavior Analyst Certification Board (BACB, 2014; hereafter referred to as the “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, Karimi, & Ficcaglia, 2017; Quigley, Blevins, Cox, Brodhead, & Kim, 2019; Romani & Schieltz, 2017) and organizations (see Association of Professional Behavior Analysts [APBA], 2020; Council of Autism Service Providers [CASP], 2020) have 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 best practices and preventing unwanted effects of unethical telehealth service in the ABA field.

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

We chose these organizations because they are similar in nature to the BACB—they provide in-person services that involve children and families, among other services—and they have issued 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 the practice of ABA. Several studies, for example, referred to the APA’s ethics code (APA, 2010) when addressing ethical considerations for telehealth-based ABA services (Peterson et al., 2019; Pollard et al., 2017; Romani & Schieltz, 2017), but none of them analyzed the APA Guidelines (Peterson et al. 2019). Therefore, the aim of the present article 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 article’s findings are not intended to replace the BACB Code but rather to assist ABA practitioners in making their best clinical and ethical judgment 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 them 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, and providing telehealth in school. In addition, as noted earlier, although the BACB has not yet issued guidelines specific to telehealth, we found it valuable to include the BACB Code in Table 1 as general practice guidelines. The Appendix 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 Code

items (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. Of particular interest is that the AAP (2017) provides a useful suggestion to current ABA literature by addressing environmental safety concerns for practitioners.

Training (Competency) on Technology

Before using telehealth-based services, ABA practitioners should ensure they 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 hardware (e.g., computer, camera, microphone, speaker, telephone), software (e.g., applications, firewalls, antivirus protection, encryption), and the Internet (e.g., bandwidth). This applies to ABA practitioners as well. Although neither the BACB Code nor the APBA guidelines (2020) directly address ABA practitioners’ competency on technology, several studies have recommended that ABA practitioners be trained on the 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 the technological aspects of telehealth. Therefore, it is the ethical responsibility of ABA practitioners to obtain necessary training on technology and ensure there are adequate support systems (for hardware and software issues) prior to implementing telehealth services.

Training (Competency) on Clinical Skills With Telehealth

Of the three sets of guidelines, only the APA Guidelines recommend that practitioners should receive training on clinical skills specific to telehealth-based therapy (e.g., practitioners should familiarize themselves with existing literature on telehealth, seek out help from an experienced colleague, attend trainings and university classes related to service provision via telehealth). 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 practitioners to provide professional services within the boundaries of their competence (BACB Code 1.04[d]). Practicing outside one’s scope of competence has negative consequences for clients and also adversely affects ABA practitioners (Brodhead, Quigley, & Wilczynski, 2018).

There are four areas of clinical competencies in ABA: (a) assessment and testing, (b) supervision/training of staff who deliver in-person services to clients, (c) direct service with clients, and (d) parent training/coaching. As Lerman et al.

Table 1 Comparison of ethical codes and guidelines across the APA, AAP, NASW, and BACB

Domain	Subdomains	Organizations			
		APA	AAP	NASW	BACB
Therapist Suitability	Training (Competency) on Technology	Guideline 1		Standards 2.06, 2.23	8.04(a) – Media Presentations and Media-Based Services
	Training (Competency) on Clinical Skills With Telehealth	Guideline 1			1.02 – Boundaries of Competence; 1.03 – Maintaining Competence Through Professional Development
	Environmental Aspects		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 Interest in Telehealth Culture	Guidelines 1, 2	Guidelines 1, 2, 3, 7	Standards 2.06, 2.20	1.05(e) – Professional and Scientific Relationships
Client Suitability	Equipment		Patient Safety 2	Standard 2.21	4.07(b) – Environmental Conditions That Interfere With Implementation
	Familiarity With Technology	Guideline 2		Standards 2.01, 2.05	4.07(b) – Environmental Conditions That Interfere With Implementation
	Environment Suitability for Sessions	Guideline 2	Environment 2		4.07(b) – Environmental Conditions That Interfere With Implementation
	Safety	Guideline 2			4.07(b) – Environmental Conditions That Interfere With Implementation
Standards of Care in the Delivery of Telehealth Services	Caregiver Availability/Presence		Parental/Legal Representative Presence 1		1.01 – Reliance on Scientific Knowledge; 2.09(d) – Treatment/Intervention Efficacy
	School Health Services		Special Considerations & Environment 1, 2		2.15 – Interrupting or Discontinuing Services; 4.11 – Discontinuing Behavior-Change Programs and Behavior-Analytic Services
	Reliance on Scientific Evidence for Using Telehealth With a Client	Guidelines 1, 2			7.02(b) – Ethical Violations by Others and Risk of Harm
Informed Consent	Continuity of Care and Termination of Services	Guideline 2	Patient Safety 1	Standards 2.12, 2.13	1.05(b) – Professional and Scientific Relationships; 2.03(a) – Consultation; 2.05(c) and (d) – Rights and Prerogatives of Clients; 2.08 – Disclosures; 2.15(e) – Interrupting or Discontinuing Services; 3.03 – Behavior-Analytic
	Emergency Planning	Guidelines 1, 2	Emergency Contingencies 1–4; Equipment 4	Standards 2.04, 2.22, 3.01, 3.07	
	Informed Consent for Telehealth	Guideline 3	Privacy and Confidentiality 1, 3; Informed Consent 1–2, 4; Special Considerations & Environments 2.1–2.2, 2.4.3		

Table 1 (continued)

Domain	Subdomains	Organizations			
		APA	AAP	NASW	BACB
	Billing Documentation	Guideline 3	Informed Consent 1		Assessment Consent; 3.05 – Consent-Client Records; 4.02 – Involving Clients in Planning and Consent; 4.04 – Approving Behavior-Change Programs 2.12(b) – Contracts, Fees, and Financial Arrangements; 2.13 – Accuracy in Billing Reports
Data Confidentiality	Risks to Client Confidentiality	Guidelines 2, 3, 4, 5	Patient Privacy and Confidentiality 1, 2, 4; Informed Consent 1; Patient Safety 4; Equipment 5	Standards 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	Guidelines 5, 6	Patient Safety 4; Patient Privacy and Confidentiality 4	Standards 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			3.01(a) – Behavior-Analytic Assessment
Legal Aspects	Licensing and Jurisdictional Practice for Telehealth	Guidelines 3, 8	Provider Considerations 1–2; Legal and Regulatory Considerations	Standards 2.02, 2.03	1.04(d) – Integrity

(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 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 practitioners' competence in decision making (e.g., Neely et al., 2019; Pollard et al., 2017; Reese, Slone, Soares, & Sprang, 2015; Xie et al., 2013). In conclusion, in order to acquire clinical competency for delivering ABA services remotely, ABA practitioners should seek additional training and be familiar with evidence-based practices related to telehealth.

Environmental Aspects

Another ethical issue to consider before and during the delivery of a telehealth session is the safety of a practitioner's environment. Interestingly, only the AAP Procedures address this aspect. Specifically, the AAP Procedures recommend that practitioners should arrange their environment so that they can provide telehealth service safely and securely. Based on the AAP Procedures, the following should be considered:

1. Are there any distractions (e.g., noise, other people)?
2. Does the room meet the recommended standards for privacy and confidentiality (e.g., presence of an unauthorized person in the room, poor noise cancellation of the walls)?
3. Is the client's personal information visible to others on-screen?
4. Is the client's privacy protected on 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 a soft voice, along with scheduling sessions when others are not present in the office, could be an alternative option 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 the required

equipment (AAP, 2017; APA, 2013; NASW, 2017). The AAP Procedures discuss two types of equipment: equipment that allows telemedicine and equipment for clinical service. It is important that the equipment used to provide telehealth and therapy is effective and reliable. Several researchers and organizations have also recognized the importance of possessing reliable equipment (i.e., hardware, software, etc.) for engaging in telehealth-based ABA services (e.g., CASP, 2020; Lee et al., 2015; Rios, Kazemi, & Peterson, 2018). Equipment used for delivering clinical services in ABA could be the materials for the picture exchange communication system (Frost & Bondy, 1994) and the Verbal Behavior Milestone Assessment and Placement Program (VB-MAPP; Sundberg, 2008). It is unclear whether certain ABA therapeutic equipment can be used effectively via telehealth during a direct, one-on-one session (although see Simacek, Dimian, & McComas, 2017; this point is also discussed in the [Testing and Assessment](#) section of this article).

Therefore, ABA practitioners should ensure they possess adequate equipment prior to and during a telehealth session. A practitioner must exercise clinical judgment to assess the effectiveness of the equipment used during the telehealth session.

Client Suitability

In addition to evaluating ABA practitioners' suitability, one needs to assess a client's suitability for telehealth as well (e.g., APBA, 2020; CASP, 2020). The BACB Code mainly focuses on environmental factors that might interfere with treatment (Table 1). Moreover, K. Rodriguez (2020) proposed a model to help ABA practitioners determine if a direct, one-on-one telehealth session is suitable for a specific client. To support ABA practitioners in assessing a client's suitability for telehealth services, we reviewed several important factors. The AAP Procedures (2017) uniquely discuss the presence of parents during a session and the provision of telehealth service in school as topics of concern, which we will discuss later separately. Ultimately, ABA practitioners must decide whether telehealth is a viable option for each client on an individual basis.

Client Interest in Telehealth

Recent articles in the emergency series of *Behavior Analysis in Practice* (Colombo et al., 2020; Cox, Plavnick, & Brodhead, 2020) have discussed ethical decision making on whether to continue ABA sessions in person or to shift to telehealth-based ABA sessions during the 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 consider whether a patient is interested in receiving treatment via telepsychology. It is important for ABA practitioners to assess a client's preference regarding telehealth and how they can support the client in overcoming any existing obstacles (e.g., clients or caregivers might feel embarrassed because they do not feel they possess adequate technological knowledge). ABA practitioners should empower their clients by informing them about 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 or her decision should be respected and a new plan for service delivery should be developed.

Culture

Clients' and families' culture always matters 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 for, designing, and delivering services via telehealth. Similarly, Pollard et al. (2017) discussed cultural considerations related to telehealth-based ABA 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 the implementation and effectiveness of telehealth services. Any cultural factors that could interfere with telehealth services should be discussed at the onset of ABA service provision. If there are identified cultural obstacles, ABA practitioners should make every effort to learn about their clients' cultural values and how to deliver services with respect to them (BACB Codes 4.03[a] and 4.07).

Equipment

Just as ABA practitioners must have access to appropriate technology, 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 an equipment needs assessment to determine if the family had appropriate equipment before starting a telehealth-based ABA session. Therefore, ABA practitioners should, at the onset of telehealth service delivery, identify if the client's family has access to reliable technology and, if not, reassess if telehealth-based ABA 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 is allowed temporarily (U.S. Department of Health and Human Services, 2020).

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). Romani and Schieltz (2017) recognized the importance of this aspect, and they familiarized the client's mother with Skype during telehealth sessions. Thus, it is safe to say that ABA practitioners, before the onset of telehealth-based ABA sessions, should assess clients' and/or caregivers' familiarity with the required 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 Sessions

It is also important to discuss ethical standards for environmental suitability on the part of the client when using telehealth (Lerman et al., 2020). Both the AAP Procedures and the APA Guidelines recognize that both providers and clients need to have a suitable environment. For example, the APA Guidelines suggest that the environment should not have any distractions and 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 because it is conceivable that an unauthorized person might be at home when a client is having a session, 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 the family, develop a plan for suitable and secure telehealth service delivery, as well as to minimize interferences.

Safety

The APA Guidelines give a unique contribution by addressing the safety of a client and his or her environment in a clinical telehealth session. Two aspects should be taken into consideration: (a) the physical safety of the

environment and (b) the client's safety and the safety of others. Regarding physical safety, CASP (2020) provides a checklist that can be used to assess the environmental and safety aspects of service delivery settings. Therefore, ABA practitioners, before the onset of telehealth service delivery, should assess if there are any safety concerns in the physical environment (e.g., sharp objects, cleaning supplies) that should be removed before sessions (Lerman et al., 2020).

Second, ABA practitioners are encouraged to evaluate the suitability of telehealth for 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 telehealth-based services (Peterson et al., 2019).

Caregiver Availability/Presence

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

School Health Services

Another aspect that only the AAP Procedures acknowledge is telehealth services that occur in school settings. Specifically, the AAP Procedures state that one should develop specific guidance on school-based telehealth service given the requirements of the Healthcare Insurance Portability and Accountability Act (HIPAA) and the Family Educational Rights and Privacy Act, as such services involve more people in school settings than those at home.

Given 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. These services might include supporting and training teachers and staff in addition to direct service to students via telehealth. Reports of school-related telehealth-based ABA interventions are available. For example, Neely

et al. (2019) found a pyramidal staff training via telehealth to be 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 the practitioner's ability 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 in 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 (e.g., confidentiality, emergency management) and benefits (e.g., availability of care) of providing ABA service via telehealth for a given client from the onset of service to the termination of service in order to maintain the standards of care.

Reliance on Scientific Evidence for Using Telehealth With a Client

ABA practitioners should always make clinical judgments based on empirically derived knowledge (BACB Code 1.01). The APA Guidelines discuss two aspects of evidence-based telehealth practice: (a) the types of clinical interventions that are effective using telehealth and (b) the types of telecommunication technologies that are effective in delivering telehealth services (e.g., videoconferencing, phone, e-mail); the APA Guidelines recommend practitioners look for scientific evidence for the effectiveness of both types. Furthermore, the APA Guidelines caution that a lack of evidence of effectiveness should not necessarily be the reason for the denial of telehealth service, as each practitioner should make his or her best clinical judgment in a given situation. However, 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 coaching parents on functional analysis (FA; Lee et al., 2015; Romani & Schieltz, 2017). ABA practitioners should become familiar with the available resources

and apply their best clinical judgment 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 service as needed. The APA Guidelines and the AAP Procedures discuss the necessity of assessing the continuity and termination of care on a regular basis in order to maintain quality service via 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 treatment.

Emergency Planning

All the organizations emphasize the need for 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 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 recommended 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.

Informed Consent

ABA practitioners should acquire consent for telehealth-based services. The consent should include the contents of telehealth activities as well as for the applicable laws and regulations related to telehealth. Peterson et al. (2019) noted three points at which client consent is required during ABA services provided via telehealth: (a) consent for providing services via telehealth, (b) consent for audio or video recording of the sessions (if applicable), and (c)

consent for a functional behavior assessment (p. 195). The BACB requires that 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], and 9.03). Thus, ABA practitioners should obtain consent specific to telehealth services.

Informed Consent for Telehealth

Our review found that all the organizations' telehealth codes and guidelines require that the client be informed of the potential benefits and risks associated with service delivery via telehealth, such as risks pertaining to hardware and software and any arrangements required to deliver services, prior to engaging in telehealth activities (AAP, 2017; APA, 2013; NASW, 2017). Furthermore, a client's consent must be obtained for (a) the use of telehealth-based services, (b) potential confidentiality- and privacy-related risks, (c) sharing information with other parties, and (d) data management. The AAP Procedures, in addition, requires informed consent from clients for recording clinician–client meetings, making age-related health decisions, providing emergency services, and working in school settings. Moreover, they highlight that a consent form should be clear and comprehensive, be culturally sensitive, and include the rights and responsibilities of the 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 existing programs if this will be a shift from in-person practice (e.g., some in-person programs will 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 (Peterson et al. 2017, 2019). Caregivers should always be informed about treatment changes and agree with consent.

Another aspect of telehealth-related consent is that employing telehealth in behavior intervention programs may require the consent to disclose confidential data to third parties in case of emergency (AAP, 2017; APA, 2013). Third-party 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 health care) without ABA practitioners' knowledge. ABA practitioners should provide information on how the client's privacy and confidentiality will be ensured while delivering telehealth services using third-party equipment (e.g., rented equipment, online applications; NASW, 2017).

Thus, ABA practitioners should become familiar with state laws and regulations and obtain informed consent from the client and/or caregivers for disclosing any type of information (unless otherwise mandated by law), as well as data intended for scientific or educational purposes. When ABA practitioners are required (i.e., by the insurer or organization) to record telehealth sessions, state laws should be observed, and the client shall consent to the additional requirements (M. Rodriguez, Morrow, & Seifi, 2015). Issues of confidentiality (i.e., encryption of transmission, storage, and disposal) of the recording should be disclosed to the client (AAP, 2017; NASW, 2017). Appendix provides a guide for informed consent for telehealth services, including 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 billing arrangements prior to the commencement of the intervention and acquire consent for them. Furthermore, practitioners should specify the type of services (i.e., telephone, texting, e-mail, 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 the telehealth modality that may help ABA practitioners use the appropriate codes for their services.

Data Confidentiality

Telehealth is unique in terms of confidentiality due to its technology and environment. The APA Guidelines define 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 of data breach; ABA practitioners should be familiar with this possibility and 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 for loss of confidentiality. The APA Guidelines list 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, e-mail), and therapist–client boundary issues. In addition to being competent using technologies, ABA practitioners need to inform 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 telehealth sessions. If the practitioner encounters a situation where the client's privacy is at risk, such as when an unauthorized person is present during the session, the practitioner needs to either terminate the session or change the session's 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 state and federal laws, including sending the documents via secure, encrypted means (AAP, 2017). This requirement applies to ABA practitioners when they use asynchronous observation methods (e.g., Pollard et al., 2017). ABA practitioners need to be familiar with all of the risks mentioned previously and should discuss them with clients and their families.

Security, Transmission, and Disposal of Confidential Information

ABA practitioners must comply with HIPAA and Health Information Technology for Economic and Clinical Health guidelines in terms of management, transmission, storage, and disposal of data specific to telehealth (APA, 2009)¹. All the assessed telehealth guidelines note that practitioners should take appropriate precautions when sensitive client information is transmitted or stored; these guidelines highlight the need for organizational policies to protect sensitive data and restrict unauthorized access to such data (AAP, 2017; APA, 2013; NASW, 2017). ABA practitioners, prior to and during the delivery of telehealth services, should ensure the availability of a means of secure data management (e.g., encrypting software, HIPAA-compliant devices and software, firewalls, up-to-date virus protection) in order to gather, transmit, and store client-related information. In case of compromised data, organizations and practitioners must notify clients regarding the nature of the breach, and appropriate actions must be taken (APA, 2013; NASW, 2017).

¹ The HITECH Act was enacted under Title XIII of the American Recovery and Reinvestment Act of 2009 to stimulate the extension of Health Information Technology (HIT), including provisions for the management of patient-related information in terms of security and privacy (APA, 2009).

Testing and Assessment

The testing and assessment domain is unique in the APA Guidelines. For psychologists, it is a concern as to 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 the same as those used by psychologists, it is still a concern whether or not various ABA assessment tools and their results are valid when used in a telehealth setting, especially during direct service with a client. Because 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 an FA, criterion-referenced skill assessment tools such as the VB-MAPP (Sundberg, 2008) and the Assessment of Functional Living Skills (Partington & Mueller, 2012), and preference and reinforcer assessments. Currently, studies validating the direct implementation of ABA assessments via telehealth (i.e., a practitioner implements an assessment with a client via telehealth without the aid of another person physically present with the client) are scarce. In contrast, the effectiveness of telehealth-based parent-coaching FAs has been documented (e.g., Machalicek et al., 2009; Romani & Schieltz, 2017; Wacker et al., 2013). ABA practitioners should use their best clinical judgment when administering such assessments remotely.

Legal Aspects

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

If the delivery of 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 employers as to whether 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 telehealth service delivery.

The APA Guidelines also address 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 state and local jurisdictions' regulatory boards to determine whether interjurisdictional practice is allowed and whether 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 to clients. Although ABA practitioners always deliver ethical, evidence-based practice that must "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 is 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's interest in telehealth, the presence of 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 article to help facilitate ethical and effective ABA practice using telehealth (see the [Appendix](#)). The body of literature discussing ethical and practical aspects of telehealth services in ABA is continuously increasing, yielding valuable information for making the best ethical clinical judgment 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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Compliance with Ethical Standards

Conflict of Interest All three authors declare they have no conflict of interest.

Ethical Approval This article does not contain any studies with human or nonhuman participants performed by the authors.

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 the 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 the necessary equipment for receiving telehealth?	
Is the client/caregiver familiar with the telehealth technology?	
Is the client's environment suitable (distraction, privacy) for telehealth-based sessions?	
Is the client's environment safe (physical safety, safe from harm) for telehealth-based sessions?	
Can the caregiver be present during sessions?	
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 modifications 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 the consent form include information related to the risks and benefits of telehealth-based service, such as confidentiality?	
Does the consent form 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 of the laws and regulations related to telehealth?	
Are telehealth-based services allowed in the state in which the practitioner provides ABA services and the client receives it (jurisdictional and interjurisdictional)?	
Does the practitioner possess necessary telehealth-related licensure to practice?	
Does the practitioner have adequate knowledge of funding sources and liability insurance related to telehealth?	

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