

Dealing with uncertainty: A systematic approach to addressing value-based ethical dilemmas in behavioral services

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Abstract

Applied behavior analysis (ABA) service delivery is a complicated process and some issues stemming from this process can be controversial. Ethical dilemmas can challenge ABA practitioners and require thorough examination. The goal of this paper is to identify the existence of value-based ethical dilemmas stemming from potential tensions among underlying values and to provide behavior practitioners with a systematic approach to addressing these dilemmas. Specifically, we use a step-by-step protocol for ethical deliberation and dilemma resolution in situations involving value-based ethical dilemmas. We describe the application of this approach to clinical cases and its implications for services provided via telehealth.

KEYWORDS

applied behavior analysis, ethical deliberation, telehealth, value-based ethical dilemmas, value conflict

1 | INTRODUCTION

Applied behavior analysis (ABA) service delivery is a complicated process from which controversial ethical issues can arise (Newhouse-Oisten et al., 2017; Sturmey, 2005) to create dilemmas that challenge ABA practitioners. Particularly when faced with moral uncertainties, behavior analysts are likely to encounter ethical dilemmas. Sources of uncertainty include limitations in current knowledge, clients' ambivalence about their goals, and unavailability of required resources in the environments where clients live (Brodhead, 2015; Young-Pelton & Dotson, 2017). In addition, behavior analysts' decision-making processes are often influenced by personal as well as societal values. When values conflict within one ethical system, value-based directions may constitute an ethical dilemma.

In the literature to date, the term "ethical dilemmas" has been associated with different meanings. For example, the *Ethics Code for Behavior Analysts* identifies the existence of "multifaceted ethical dilemmas" (BACB, 2020).

It is helpful to introduce a distinction between value-based dilemmas and strategy-based dilemmas for clarity. A value-based ethical dilemma exists when, in charting the course for a clinical case, tensions occur among values within the same ethical system. The debate about behavioral interventions for elopement behaviors in people with developmental disabilities represents an example of such a value-based ethical dilemma. The challenge of elopement is that it exposes clients to potentially dangerous situations and thus treatments that simply reduce its frequency rather than eliminate it are not considered as clinically significant and socially acceptable (Lang et al., 2009). In the ethical dilemma about the treatment of elopement, the “non-restrictive intervention” position is supported by the implicit value of autonomy which emphasizes the individual's freedom and independence, whereas the “right to effective treatment” position is supported by the value of nonmaleficence—the concern to “do no harm” the individuals (LaVigna & Donnellan, 1986; Van Houten et al., 1988). In other words, ethical principles in the same value system (the western value system in this case) can lead to different directions in the development of treatment plans.

The defining features of value-based ethical dilemmas have already been offered in the ethics literature (e.g., Millard & Rubin, 2006). Characteristics of value-based ethical dilemmas arise in the following cases: (a) a choice must be made between two courses of action, (b) each course of action involves significant consequences, (c) each course of action can be supported by one or more ethical principles or values, and (d) the ethical principles or values supporting the unchosen course of action will be compromised when the other course of action is chosen (Millard & Rubin, 2006). Thus, a multi-component but nonhierarchical ethical system contains an inherent possibility of value conflicts that might contribute to ethical dilemmas.

Strategy-based dilemmas, on the other hand, are mainly about benefits and risks stemming from a particular procedure or strategy. For example, Bailey and Burch (2016) discuss at length the “risk-benefits for each behavioral procedure” (see Bailey & Burch, 2016 for specific examples). A particular procedure such as time out could lead to rapid suppression of inappropriate behavior. Meanwhile, the implementation of the time out procedure could produce undesired results such as negative emotional responses. To use or not to use the procedure, therefore, becomes an ethical dilemma.

The social validity literature (e.g., Wolf, 1978) might function as an analogy to help with the distinction between value-based and strategy-based dilemmas discussed here. Social validity involves three components: (a) whether the goals in behavior decisions are valid, (b) whether the treatment procedures are acceptable, and (c) whether the outcomes of the actions show meaningful changes (Peters & Heron, 1993; Wolf, 1978). Thus, value-based dilemmas could be considered first-layered ethical dilemmas because they are about the goals of a particular individual; the decision-making protocol designed to solve the dilemmas provides a broad framework for how ABA providers may chart a course in the service delivery process. In comparison, strategy-based dilemmas could be considered second-layered ethical dilemmas because what is involved is an intervention strategy or a specific procedure; the decision-making protocol dealing with these situations focuses on assessing the procedure's pros and cons and deciding how to implement it. Value-based dilemmas are goal-oriented conflicts and thus are not unique to behavior analysts. Other professionals such as psychologists, educators, rehabilitation counselors, and speech-language pathologists have the same struggles, for example, between following the principle of autonomy or that of nonmaleficence in some clinical cases (Akfert, 2012; Beveridge et al., 2015; Landes, 1999). In contrast, only behavior analysts would have debates concerning benefits versus risks of certain intervention strategies (e.g., the use of restrictive procedures to treat self-injurious behaviors).

Historically, ethics training has tended to focus on understanding and following standards in an ethical code; such training has essentially neglected to discuss ethical principles and the broad nature of value-based dilemmas (Roessler & Rubin, 2006). This certainly was the case in the field of applied behavior analysis at the time when the first author of this paper started teaching ethical dilemma resolution workshops at ABAI conventions and other ABA conferences in 2008. However, as a relatively recent and encouraging development, some ethical deliberation models have been developed to address strategy-based dilemmas. A recently published review has identified nine behaviorally oriented ethical decision models (Suarez et al., 2022). The focus of these models tends to be on analyses of risks and benefits of a strategy or procedure. A currently popular textbook on ethics for behavior analysts primarily

uses the risk-benefit analysis to evaluate a single procedure or several procedures based on potential benefits and risks, as its authors have pointed out: "Behavior analysts need to clarify for practitioners that some procedures can increase the probability of unintended behaviors" (Bailey & Burch, 2016, p. 223). This model is also reflected in the introduction of the *Ethics Code for Behavior Analysts* (Code) by the Behavior Analyst Certification Board (BACB, 2020). So far, however, few discussions about value-based dilemmas and related decision-making steps addressing them have taken place in the field of ABA.

While the risk-benefit analysis model is instrumental in helping behavior analysts address strategy-based dilemmas and select the best procedures, other tools are also needed to help behavior analysts address value-based ethical dilemmas and develop overarching plans for a particular individual faced with conflicting goals. We believe that a decision-making protocol addressing value-based dilemmas and the risk-benefit analysis model could complement one another in the practice of ethical deliberation by behavior analysts.

In dealing with ethical dilemmas including value-based dilemmas, behavior analysts need to follow the standards in the *Ethics Code for Behavior Analysts* to reach reasonable and practical resolutions (BACB, 2020). However, in some cases, ethical dilemmas cannot be resolved by merely following the existing standards or guidelines. It is important to appreciate that multiple ethical principles underlie standards in the Code and that these multiple principles and numerous standards may become a source of tension for practicing behavior analysts. Therefore, familiarity with principles and standards in the Code is a necessary but not sufficient condition to solving ethical dilemmas in real life and real time. This kind of revelation may explain why it is proposed that the next version of the American Psychological Association's *Ethical Principles of Psychologists and Code of Conduct* should include direct guidance on ethical dilemma resolution in addition to specifying principles and rules (Chenneville & Schwartz-Mette, 2020). In general, helping professionals need a critical thinking repertoire—"a process for handling the uncertainty surrounding decisions that must be made in real-life, in real-time" (Gambrell, 2005, p. 253).

Ethical principles for a particular discipline ought to represent fundamental societal values. The four core principles in the Code embody such primary societal values and provide helping professionals with the highest guiding ideals. At the same time, the standards in the Code are practical and enforceable. Therefore, by operating under the Code, behavior analysts are fulfilling societal values and abiding by ethical principles (Menendez et al., 2017). The standards are a compendium of specific statements that all reflect in some way the core principles. However, observing all the standards may present ethical conflicts, requiring a behavior analyst inadvertently to break one or more of the standards in the Code and resulting in a violation of one or more of the core principles. For example, the principle of nonmaleficence could involve the standard of "minimizing risk of behavior-change interventions" (2.15), whereas the principle of autonomy could require behavior analysts to "support clients' rights" (3.01), which might include "the rights of people with developmental disabilities to eat too many doughnuts." (See Bannerman et al. (1990) for more detailed accounts of conflicts based on principle values and related guidelines for behavior analysts.)

Our purpose for the current paper is to discuss possibilities of value conflicts in an ethical system and to provide a step-by-step decision-making protocol for behavior analysts faced with morally ambivalent uncertainties and value-based dilemmas. Furthermore, we will describe how to apply this protocol to manage ethical dilemmas when providing behavioral services in traditional and nontraditional areas such as telehealth-based services and multicultural behavioral services.

2 | ETHICAL PRINCIPLES AND POSSIBLE VALUE CONFLICTS

The ethical principles embodied in the Code (BACB, 2020) includes four core principles: (a) benefit others, (b) treat others with compassion, dignity, and respect, (c) behave with integrity, and (d) ensure their competence. These principles have binding powers for certified behavior analysts and they might have less influence on behavioral professionals whose practices are outside of the certification system. In the fields of health care and human services in general, there have been five widely accepted ethical principles—the principles of beneficence, nonmaleficence,

autonomy, justice, and fidelity (Beauchamp & Childress, 2019). We propose these five ethical principles for behavior analysts. The four core principles of BACB are comparable to the principles of beneficence, nonmaleficence, autonomy, and fidelity. The justice principle is concerned with equity, diversity, and inclusion in behavioral services. Essentially, the ABA literature as well as literature from other disciplines such as rehabilitation counseling (e.g., Roessler & Rubin, 2006) suggests that multiple principles and standards might in some situations create uncertainties and even themselves become a source of ethical dilemmas.

2.1 | Ethical principles that embody societal values

As helping professionals, behavior analysts operate in a broad societal context. Societal values and ethical principles constitute the foundation of the standards in the Code. Therefore, behavior analysts should always take the following societal values and ethical principles into consideration when providing behavior analytical services.

2.1.1 | The principle of beneficence

Beneficence as a societal value asserts that a member of a society ought to help others further their legitimate interests. The principle of beneficence for helping professionals requires a clinician to promote clients' well-being and growth. This principle is related to the first core principle in the Code—benefit others. In following this principle, a behavior analyst may provide a client with skill acquisition programs and train parents to increase the client's skill generalization (e.g., Code 2.01, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19, and 3.01). Other examples of beneficent behavior on the part of a behavior analyst include helping a colleague improve performance and conducting research in order to maximize the effectiveness of interventions (e.g., the Code 2.10). This principle is also related to the fourth core principle in the Code—ensure their competence. A behavior analyst provides services within their area of expertise to guarantee the quality of services that would improve clients' well-being and growth (e.g., Code 1.05 and 1.06).

2.1.2 | The principle of nonmaleficence

Nonmaleficence as a societal value stresses the obligation of doing no harm to other members of society. As an ethical principle for helping professionals, it further requires a clinician to remove conditions that could be harmful to clients. This principle has been considered to be the oldest professional ethical principle (Beauchamp & Childress, 2019). It is fundamental for behavior analysts and therefore reflected in the first core principle in the Code. Examples of nonmaleficence as demonstrated by behavior analysts may include preventing clients with aggressive behaviors from harming others. Conducting a functional assessment to understand a client's self-injurious behavior and implementing functional interventions for a client's self-injurious behavior certainly helps to reduce harms (e.g., Code 2.01, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19 and 3.01). In some situations, assisting a client to leave an abusive living environment may become a responsibility for a behavior analyst.

2.1.3 | The principle of autonomy

As a societal value, autonomy recognizes the freedom of individuals to control their own lives. The principle of autonomy for helping professionals can be defined as respecting clients' right to make choices. This principle is reflected in the second core principle in the Code—treating others with compassion, dignity, and respect. Behavioral examples of the principle of autonomy as demonstrated by behavior analysts may include taking a person-centered approach

to provide clients with ABA services, enabling them to make informed choices, supporting a client's selection of a particular goal or objective, encouraging a client to take responsibility for certain tasks, and refraining from unnecessary interference with the client's activities (e.g., Code 2.08, 2.09, 2.11, 2.14, and 2.15).

2.1.4 | The principle of justice

Fairness is fundamental to the principle of justice (Rawls, 1958). This means that no person should be granted social benefits on the basis of underserved advantaging properties and no person should be denied social benefits on the basis of underserved disadvantaging characteristics—because persons themselves are not responsible for disadvantaging characteristics (Huang & Rubin, 1997). The principle of justice for helping professionals requires a clinician to treat clients and others fairly and be responsive to their individual differences concerning equity, diversity, and inclusion. This is the further ideal for the second core principle in the Code. Behavioral examples in the ABA field of the principle of justice may include fairly allocating limited resources, ensuring that all clients have equal access to them, and modifying treatments to each client's particular needs and cultural background. Keeping individual case service costs reasonably affordable in conjunction with multiple resources of financial aid, for example, increases accessibility of services to a larger number of clients in need (e.g., Code 1.07, 1.08, and 4.07).

2.1.5 | The principle of fidelity

As a societal value, fidelity refers to faithfulness and loyalty. The principle of fidelity for helping professionals involves an expectation that they maintain their duty to keep promises and commitments to their clients. This principle is related to the third core principle in the Code—behave with integrity. Behavioral examples of fidelity in the ABA field may include providing services within one's scope of competence, being responsible for professional services provided to clients, protecting clients' confidentiality, and adhering to regulations and requirements set by relevant governing agencies and professional organizations (e.g., Code 1.02, 1.03, 1.04, 1.05, 1.06, 2.03, 2.04, and 2.11).

2.2 | Possible value conflicts

When multiple principles operate concurrently, uncertainties and ethical dilemmas are likely to occur (Toriello & Benshoff, 2003). This is especially apparent because the principles are not ranked in terms of significance. Because of the close relationship between ethical principles and standards in the Code, different standards may lead to different, even contradictory, courses of action because there is no absolute rank order among the standards in the Code either. Therefore, a behavior analyst may encounter a situation for which ethical principles and standards in the Code provide insufficient guidance or even contradictory directions. A historical debate about how to treat severe behaviors including self-injurious behaviors can serve as an example of such a dilemma.

In the 1980s, the field of behavior analysis witnessed a debate about how to address serious behavior problems such as severe self-injurious behavior (Harris & Handleman, 1990; Singh et al., 1990). There were two schools of thought in this discussion. The “non-restrictive intervention” position presented the following arguments: (a) examples of restrictive procedures with persons with developmental disabilities include response blocking, physical restraint, and the use of protective devices, (b) the use of these restrictive procedures is aversive and associated with negative side effects and is therefore unethical, and (c) nonrestrictive procedures produce better therapeutic results and educational gains (Bannerman et al., 1990; LaVigna & Donnellan, 1986). The “right to effective treatment” position, on the other hand, presented the following arguments: (a) selective use of restrictive procedures is necessary because positive procedures are not always effective with certain behaviors such as self-injurious behavior, (b) clients, especially those suffering from disabilities, should receive the most effective treatment including intrusive or restrictive procedures on a timely basis to minimize harm, and (c) clients should not be exposed to ineffective treatments which would simply prolong their suffering (Van Houten et al., 1988).

To make an issue more challenging for practicing behavior analysts, the roles of standards in the Code are limited when real ethical dilemmas are present. For example, a behavior analyst working with a client with self-injury behaviors should follow standard 3.01 “[Behavior analysts] support clients’ rights, maximizing benefits” that reflects the aforementioned “freedom from harm” approach to treating self-injurious behavior; whereas the behavior analyst should also follow standard 2.01 “Providing effective treatment,” which reflects the “right to treatment” approach to the same clinical issue. Clinical implications from following 3.01 or following 2.01 in this case could be different or even opposite.

In summary, following the standards in the Code is necessary but not sufficient for solving some value-based dilemmas. Familiarity with the standards in the Code alone does not necessarily provide sufficient guidance for behavior analysts confronted by ethical dilemmas involving implicit value systems. In addition to the fact that multiple principles and standards might offer different or contradictory directions, these principles and standards are general directives and open to interpretation. The following sample cases illustrate and clarify the further limitations of the Code’s standards.

3 | A STEP-BY-STEP PROTOCOL TO HELP SOLVE VALUE-BASED ETHICAL DILEMMAS

When following ethical principles and standards in the Code is insufficient for solving ethical dilemmas, behavior analysts must engage in a critical thinking process. A decision-making protocol can be instrumental in helping behavior analysts deal with ethical uncertainty and resolve value conflict.

3.1 | A proposed value-based ethical decision-making protocol

We present a theoretical foundation for a decision-making protocol and then define detailed steps. Philosophically, two basic approaches guide individuals in deciding about a course of action. One school of thought, called deontological ethics, focuses on universality of moral rules and actions themselves when evaluating an ethical dilemma and deciding about action. According to Immanuel Kant (1724–1804), for example, some actions are considered ethically good because of their adherence to moral rules, regardless of their consequences (Sturmey, 2005). The other school argues that in order to make a good decision when faced with an ethical dilemma, one should analyze the consequences of those actions. Technically, this philosophical school is labeled consequentialist, or teleological, ethics. Utilitarianism, described by British philosopher Jeremy Bentham (1748–1832), is an example of consequentialist ethics (White, 1993). Consequentialist arguments seem to coincide with the cultural selection theory of behaviorists (Skinner, 1953). For a more detailed discussion of these two approaches, see a recently published ethics book in the ABA field (Brodhead et al., 2022).

The decision-making protocol we propose here fuses deontological ethics and consequentialist ethics. The protocol stresses the initial importance of core values and ethical standards—that, for example, behavior analysts should always attempt to consult the Code and follow standards in making practical decisions. However, when value conflicts or ethical dilemmas occur, our protocol teaches behavior analysts to analyze the consequences of actions and related ethical principles in order to find an optimal solution to the dilemma.

A review of literature indicates that some ethical decision-making models are being developed and utilized in various helping fields (Howe & Miramontes, 1992; Suarez et al., 2022). One of these models, which was originally developed in the field of rehabilitation counseling, has obtained strong validity data from field tests and has been utilized in rehabilitation counseling for many decades (Millard & Rubin, 2006). Although the work done by Millard and Rubin is relevant to behavior analysts, modification of this model is necessary to accommodate the unique features of applied behavior analysis. Based on our experiences both in applied behavior analysis and in professional ethics, we have converted the Millard and Rubin’s model into a protocol that is particularly applicable to behavior analytical practices and services. Table 1 outlines steps in the ethical decision-making protocol we propose for use when ABA providers engage in ethical deliberation to solve uncertainties and dilemmas.

The logic of our decision-making protocol for ethical deliberation can be briefly described as follows. When behavior analysts review clinical cases and find an ethically uncertain situation, their first step should be to consult the

TABLE 1 An ethical decision-making protocol.

Step	Definition
1. Describe ethical dilemma	
• One dilemma	Describe what the problem is. The chosen problem is a clinical situation for which a choice must be made.
• Why	Follow the standards in the code or state why the standards in the code do not provide sufficient support.
2. Determine two action options	
• Option A	Define action option A as a solution to the problem in observable terms.
• Option B	Define action option B in observable terms.
3. Identify factual and ethical reasons supporting each option	
• List factual and ethical reasons supporting option A	List positive consequences from option A. Based on these consequences, identify the ethical principles that support option A.
• List factual and ethical reasons supporting option B	List positive consequences from option B. Based on these consequences, identify the ethical principles that support option B.
4. List factual and ethical reasons for not supporting each option	
• List factual and ethical reasons for NOT supporting option A	List negative consequences from option A. Based on these consequences, identify the ethical principles that would be compromised if option A is chosen.
• List factual and ethical reasons for NOT supporting option B	List negative consequences from option B. Based on these consequences, identify the ethical principles that would be compromised if option B is chosen.
5. Choose and justify the better (best) solution to the dilemma by processing all information available	
• Process all information from the previous steps	Consider factually based reasons and ethical principles in steps 3 and 4.
• Justify the superiority of one of two (or more) options	Based on these considerations, provide adequate reasons for why the selected option is superior to the option not taken.
6. Minimize the potential negative effects caused by rejecting other course(s) of action	
• Address “side effects”	Make efforts to minimize the potential negative effects from rejecting the unchosen action.
• develop a comprehensive treatment plan	Formulate a plan implementing the chosen solution and reflecting efforts to minimize “side effects”.

Code. If certain standards in the Code are sufficient in addressing the ethical issue, behavior analysts should always follow the ethical standards in the Code to make practical decisions. For example, Code 1.05 suggests that behavior analysts “practice only within their identified scope of competence (also see 1.06 on “maintaining competence”). In an emergent situation, of course, some deliberation might be needed to balance the need to assist with the competence requirement (e.g., Chenneville & Schwartz-Mette, 2020).

If behavior analysts find the Code inadequate in helping them solve the ethical problem, their second step should be to activate an ethical deliberation process by identifying two or more possible courses of action. For the purpose of simplifying the illustration, two courses of action are listed in Table 1 although, in reality, more options are entirely possible. Step three involves analysis of each of these options by listing fact-based reasons (consequences or outcomes) supporting each course of action and identifying ethical principles supporting each action. As step four, consequences for not supporting each course of action should be listed and the ethical principles that would be

compromised if each action were taken also identified. Based on the pros and cons of each option, behavior analysts must then move to step five and formulate a justification for the superiority of one of the courses of action. Finally, an important aspect of the decision-making process is to address potential “side effects” of any plan (Kazdin, 1975). Step six involves minimizing the potential negative effects caused by rejecting other courses of actions.

This six-step approach offers new elements often unavailable in strategies-based analyses: First, it takes ethical reasoning into the ethical deliberation process by considering ethical principles seriously (steps three and four), and second, it operationalizes the concept of balanced decision-making by requiring practitioners to examine and address unintended consequences of their chosen course of action (step six).

4 | CASE ILLUSTRATIONS

In this section, three cases involving ethical uncertainty and value conflict are discussed, one related to general clinical care, one related to telehealth, and one related to cultural sensitivity. The proposed decision-making protocol is applied to all these cases. A flow diagram (Figure 1) is provided here to help further illustrate the process of ethical deliberation in these cases.

4.1 | Case 1: Client preferences versus health considerations

Linda is a 20-year-old woman with the diagnosis of Prader–Willi Syndrome (a genetic disorder with the key feature of constant hunger and eating leading to obesity and related health complications) and intellectual disability. She has been living in a group home with five other peers and attending a behavioral day program for many years. Although supported

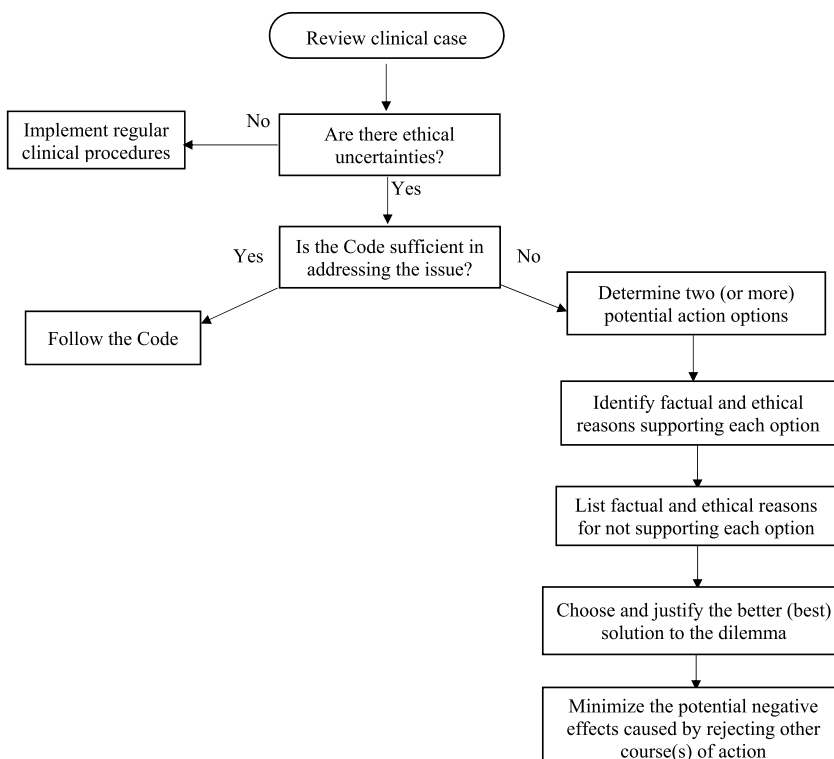


FIGURE 1 Flow diagram illustrating the process of ethical deliberation.

by positive behavioral interventions both at the group home and in the day program, Linda continues to have issues with impulsive behaviors, especially around food. She now weighs 270 pounds. Her parents and doctor are concerned about her continued weight gain as well as the potential for developing diabetes. The regional center that funds both Linda's group home and her day program has dispatched a quality assurance specialist to oversee the case. Because no Prader-Willi Syndrome programs are available in the region, a special supported living service is being considered for Linda but is not likely to become available anytime soon. The behavior analyst consulting for the group home has been asked by the team to develop a plan and to consider whether Linda should be allowed to eat foods of her choice or if the group home provider should restructure her living environment so that she will have access to healthy foods only.

In considering this case, the behavior analyst's first step should be to identify the issue and determine if the standards in the Code provide sufficient guidance for addressing the issue. In fact, two standards in the Code apply. Standard 1.02 states that behavior analysts should conform to the law and requirements of their professional community. Legally, one of the state regulations for the developmental disability community stresses the importance of clients' right to make choices (see California Code of Regulations, 2020 for detailed descriptions). On the other hand, standard 2.15 states that behavior analysts should recommend restrictive procedures when the risk of harm to the client outweighs the risk associated with such procedures. Excessive and unhealthy foods that maintain Linda's behaviors are harmful to her health. These two standards seem to point in different directions and the behavior analyst might feel the need for a more structured ethical deliberation process.

The behavior analyst's next step should be to move to Step 2, which is to define two courses of action in Linda's case: (a) allowing Linda to eat foods of her choice without any restriction, or (b) restructuring Linda's living environment so that she would have access to healthy foods only. (In reality, it is possible that there are other options but the same deliberation steps would apply for all options.) The behavior analyst should continue the deliberation process by listing fact-based reasons supporting each course of action and, given these potential consequences, identifying the ethical principles that could support each action. This part of the deliberation process constitutes Step 3.

Although option A and option B could both be supported by potential positive consequences and related ethical principles, they might have negative consequences; implementing either of them might, therefore, compromise ethical principles. At Step 4, the behavior analyst should list factual and ethical reasons for not supporting each option. For example, negative consequences associated with option A might include the possibility that Linda's health would be compromised if she continues to eat excessively. Selection of option A would thereby compromise the principle of beneficence and the principle of nonmaleficence. Unfortunately, option B could be associated with negative consequences as well. One way of restructuring the environment would be to take some foods away from the refrigerator and store them in a locked storage unit so that Linda would not have access to the food she enjoys. However, other residents at the facility might feel inconvenienced by the restrictive measures, and the quality assurance specialist might be concerned about clients' rights issues as specified in state regulations. Given these consequences, selection of option B would compromise the principle of autonomy and the principle of fidelity.

Step 5 involves formulating a justification for the superiority of one action. By choosing option A, a choice is consistent with general regulations in the state where Linda lives; the behavior analyst would respect Linda's autonomy. The potential negative consequences associated with option A (Linda's compromised health and safety), however, would be unacceptable. Therefore, the behavior analyst could give precedence to the ethical principles supporting option B (restructuring the environment) for the following reasons: (a) remaining healthy is in Linda's best interests, (b) Linda's parents want to seek effective interventions to prevent their daughter from developing diabetes, and (c) it is likely that, given unlimited foods, Linda would continue gaining weight and her weight issue would in turn limit her freedom and capacity for doing what she enjoys. Thus, action B could be supported by the principle of autonomy as well as those of beneficence and nonmaleficence.

In Step 6, the behavior analyst must make efforts to minimize the potential negative effects caused by rejecting option A. Although option B can be supported by factual considerations and related ethical principles, there might be negative consequences from rejecting option A (allowing Linda to choose her own foods) and the consequences could compromise ethical principles of autonomy and some of Linda's rights. To mitigate these negative effects, the behavior

analyst should take several special steps: (a) the restriction put on Linda's eating behavior should be approved and re-evaluated periodically by a peer review committee (Axelrod et al., 1993), a step that would be consistent with a state regulation that permits a temporary denial of client's rights after a due process hearing, (b) enhanced services including a consultation with a dietician should be implemented in the current group home, and (c) accommodation should be offered to other clients at the same facility so that they could have easy access to their preferred food.

4.2 | Case 2: Telehealth service versus no service

In recent years, behavior analysts have been increasingly using telehealth to extend the reach of services to individuals and families in the United States and the world (Wacker et al., 2013). Telehealth can be defined as the delivery of health-related services via telecommunication technologies (Monlux et al., 2019). In this new and relatively unexplored area of practice where increased numbers of uncertain issues may occur, ABA providers are more likely than ever to find themselves in situations where ethical dilemmas could arise. New uncertain issues and ethical dilemmas emerging from telehealth-delivered ABA services require attention from behavior analytical service providers and academic researchers alike.

Available research indicates that ABA providers must assess the appropriateness of telehealth service delivery for particular clients (Pollard et al., 2017). Considerations may include caregivers' comfort level with telehealth services, available resources such as access to an on-site crisis response team when needed, and cultural sensitivity to the family's contextual background (Romani & Schieltz, 2018). Most importantly, a risk assessment of the client's challenging behaviors should be conducted (The Council of Autism Service Providers, 2020).

Here is a case illustration. Tim is a 28-year-old male diagnosed with autism and mild intellectual disability. He can make one-word requests and has a limited vocabulary. Tim lives with five other individuals with developmental disabilities in a group home. Tim has frequently been observed to touch women in an inappropriate manner. For example, he touches female clients' hair and arms and, if not stopped, attempts to hug or kiss them. In addition, Tim displays aggressive behaviors toward staff at the group home, pushing and hitting them when they try to stop his inappropriate sexual behaviors. Another antecedent of his aggression is being asked to complete certain tasks. Staff members at this home are not trained in behavior interventions and feel uncomfortable working with Tim. The administrator of the home is considering discharging Tim if his inappropriate, possibly dangerous behaviors continue.

Tim's social worker at a local regional center has referred this case to Lisa, a BCBA who is the program director of a behavior consultation company. Eager to save Tim's placement at the group home, the social worker promises to provide necessary supports if Lisa agrees to provide behavioral consultation at the group home. Due to the group home's remote location, all ABA services must be delivered through telehealth. Should Lisa accept this referral?

Lisa's first step should be to identify any ethical uncertainty that might constitute a dilemma. Lisa wants to provide behavioral support for Tim and the group home working with him. She has clinical experience dealing with challenging behaviors such as Tim's. However, Lisa realizes that some of Tim's behaviors could be dangerous and staff members at the group home might not have good instructional controls over his behaviors. She is not sure if a behavioral consultation via telehealth would be adequate to achieve the desired goal. Lisa could not find guidance in the Code because there are no standards addressing telehealth-related issues.

Lisa's next step—Step 2 in the deliberation process—should be to clearly specify at least two courses of action. Option A would be to accept the referral for Tim and provide behavioral consultation to the client and his group home via telehealth. Option B would be to reject the referral from the regional center and provide an explanation for the decision based on the risks involved in this case.

During Step 3, Lisa should analyze the case by first listing fact-based reasons supporting each course of action and identifying the ethical principles that support each action. Positive consequences associated with option A might include: With behavioral services via telehealth, Tim's behavior might improve so that he might continue his placement in the group home. Lisa is aware that when providing telehealth to Tim, she should become familiar with the local in-person emergency resources as recommended by American Telemedicine Association (ATA, 2014).

If the regional center could provide additional supports including an in-person crisis response service, the group home would obtain more resources for Tim and other clients. With this improved situation and increased supports, the female clients and staff members at the home might feel safer. Given these positive outcomes, the ethical principles that support option A might include the principle of autonomy and the principle of beneficence. On the other hand, positive consequences might also be associated with option B. If Lisa does not accept the case because of the unavailability of in-person behavioral service, the group home might let Tim go. As a result, the female clients and staff members would not be exposed to his inappropriate sexual behavior and physical aggression. The group home operators might be able to reduce their liabilities and avoid complaints from parents of those female clients being harassed. Given these consequences, the ethical principles of nonmaleficence and fairness could support option B.

When Lisa moves from Step 3 to Step 4 in the deliberation process, she would quickly realize that both option A and option B might also have negative consequences and that implementing either of them might compromise ethical principles. If she selects option A, some clients and staff members at the group home might be harassed or injured by Tim's behaviors. Behavioral service via telehealth without on-site work such as in-person observation of the client's environment and modeling for staff members might not be effective. This outcome might not be fair to clients and staff members at the home. Given this possibility, the principles of nonmaleficence and justice might be compromised if option A is selected. On the other hand, negative consequences paired with option B might include Tim's loss of his placement at the group home, a placement he likes. Therefore, the principles of autonomy and beneficence might be compromised if option B is selected.

In Step 5, Lisa could provide the following reasons for the superiority of option A. Although option B could protect some female clients and staff members from being harmed and could reduce the liability for service providers, it is likely that Tim will become homeless if he loses his placement at the group home during this crisis time. A combination of telehealth-based interventions such as video modeling alternative responses for the client and providing remote live coaching for staff, together with available in-person crisis management supports from a mobile response team, is likely to succeed in helping the group home minimize the risk of anyone being harmed in this environment. Hence, Lisa could place more weight on potential positive consequences associated with option A and less weight on its negative consequences. These reasons clearly support giving precedence to the ethical principles of autonomy and beneficence that underlie option A.

However, if option A is the chosen course of action, the principle of nonmaleficence might be compromised. Therefore, Lisa should take Step 6 of the deliberation seriously and make all possible efforts to minimize possible negative consequences of rejecting option B. After accepting the referral, she should complete a functional assessment and develop a comprehensive plan including intervention and training strategies. In addition, Lisa should design a contingency protocol that specifies precursor interventions and emergency support procedures. Finally, Lisa could propose that the regional center provide time-limited one-to-one funding and the home administrator hire a staff member trained by Lisa to work closely with Tim during all hours of operation.

4.3 | Case 3: Individual independence or family values

In reaching out to diverse populations, helping professionals including behavior analysts must strive to deliver services in a culturally competent manner (Wrape & McGinn, 2018). This means they must be aware of and flexible concerning the client's language, ethnicity, race, age, gender, sexual orientation, and socioeconomic background (American Telemedicine Association, 2014; Cox, 2019).

Matt is a 19-year-old male with mild intellectual disability and depression. He lives with his biological parents who are first-generation immigrants from Hong Kong. Matt speaks English and Chinese in simple sentences. Recently, Matt and his parents had an argument about his postsecondary education. Interested in becoming an artist in the future, Matt wants to take art classes at a local college. His parents, however, want him to work for a local business. As a result of verbal fights, Matt displays self-harm behaviors including banging his head against the wall and talking about wanting

to go to heaven. Recently, his parents had to drive Matt to a local hospital where he was given an injection of a drug to help him relax. Matt's case manager at a local regional center has asked Laura, a BCBA, to provide Matt with behavioral supports. The case manager has stated in her referral package that Matt would benefit from assertiveness training so that he could learn to be independent from his parents. Experienced in providing clients with training on assertiveness and independence, Laura has accepted the referral and started her assessment process. When Laura converses with Matt about the objectives of improving assertive skills and becoming independent, Matt appears very uncomfortable because he has been taught that, in his culture, family members always depend on each other. Matt also feels remorseful for the recent argument with his parents. Should Laura provide Matt with training on assertiveness and independence?

In order to decide if Matt should receive training on assertiveness so he could become independent from his immigrant parents, Laura's first step should be to consult the Code for guidance. Standard 3.01 states that behavior analysts should act in their clients' best interests. Laura believes this standard is open to interpretation in Matt's case because both independence and interdependence could be in Matt's best interests.

Step 2 in Laura's deliberation process should be to determine two courses of action for Matt's case: (a) providing Matt with training on assertiveness and independence as requested by the referring party and (b) exploring other training objectives that would be consistent with his culture.

Laura should then continue the deliberation process by listing fact-based reasons supporting each course of action. Specifically, positive consequences associated with option A might include Matt's opportunity to pursue his dream of learning artistic skills and becoming an artist in the future, consequences that would be supported by the principles of autonomy and beneficence. On the other hand, Laura could be flexible with and sensitive to Matt's cultural background and help maintain a harmonious relationship between Matt and his family members by not providing Matt with the requested training on assertiveness and independence, consequences that would be supported by the principles of fidelity and nonmaleficence.

Moving from Step 3 to Step 4, Laura should list factual and ethical reasons for not supporting each option. For example, providing Matt with assertiveness training may create generational conflict between Matt and his parents. Assertiveness skills such as frequent eye contact, firm tone of voice, and a direct communication style are verbal and nonverbal behaviors that are not encouraged when Asian Americans interact with authority figures such as their parents (Sue et al., 1983). Given the potential of increased conflict stemming from option A, ethical principles of nonmaleficence might be compromised if this option is selected. Negative consequences associated with option B might include the possibility that Matt would feel his values are not being respected and, as a result, he might become more depressed, a consequence that would compromise the principle of autonomy.

Step 5 should be for Laura to formulate a justification for the superiority of one course of action over the other. In choosing option A, Laura would be respecting Matt's autonomy. All things considered, however, Laura should give precedence to option B for the following reasons: (a) this approach may allow Laura to work with all family members instead of providing training to one individual and therefore enable more people to benefit from the service; (b) it is likely that, if family conflicts did increase as a result of assertiveness training, Matt's depression would become worse; and, (c) Matt's deteriorated mental health would in turn prevent him from pursuing his dream of learning art and enjoying other activities he likes. Thus, option B can be supported by the principle of autonomy as well as those of beneficence and nonmaleficence.

During Step 6, Laura should make efforts to minimize the potential negative effects caused by rejecting option A. One of her mitigation efforts could be to help improve the communication between Matt and his parents by providing them with negotiation skill training. Successful negotiation skill training could increase the level of everyone's empathy and flexibility. If Matt's parents improve their listening skills and become more flexible with Matt, they might be more open to his choice of future directions. Matt could also benefit from the same training and enjoy a more harmonious relationship with his parents. Laura's additional mitigation efforts might include helping the family in contacting the department of vocational rehabilitation to obtain vocational services for Matt such as assessment for career goals and related trainings.

5 | CONCLUSION

We have defined value-based ethical dilemmas, described distinctive features of an ethical decision-making protocol, and illustrated these strategies with examples of the protocol's application to the provision of ABA services. An overarching limitation of our discussion relates to the fact that the decision-making process is largely theoretical in the field of behavior analysis. The validity of this protocol still requires verification via field tests and the collection of empirical data. However, it is worth noting that a similar though not identical model that has been applied in the field of vocational rehabilitation has already been tested and received empirical support (e.g., Toriello & Benshoff, 2003). The authors of the current paper have been utilizing the strategies in the aforementioned ethical deliberation model to solve ethical dilemmas in their practices and have been providing training workshops on the model for fellow behavior analysts for more than 10 years. Future researchers might consider systematically investigating the following topics: (a) ABA practitioners' perspectives concerning ethical dilemmas, (b) the effectiveness of this approach to ethical dilemmas in helping behavior analysts solve ethical dilemmas, and (c) the usefulness of incorporating this model into the ABA-via-telehealth process.

The literature in the ABA field as well as current practice in that field demonstrates a gap between existing clinical dilemmas and the current ethics training for behavior analysts that mainly focuses on understanding and following the standards in the Code. The ethical decision-making protocol we discuss here provides, we hope, a framework for teaching the process for making an ethical decision and not merely the providing of an answer (Paliwoda, 2005). In an era of increased demands for ABA services, whether provided in person or via telehealth, the ability to deal with uncertain situations and resolve ethical dilemmas in the service delivery process is especially important to behavior analysts. If consulting standards in the Code that are based on core ethical principles proves to be inadequate, our ethical decision-making model provides a problem-solving process designed to assist behavior analysts in integrating factual and ethical considerations to resolve value-based ethical dilemmas when they provide ABA services including telehealth.

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CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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REFERENCES

- Akfert, S. K. (2012). Ethical dilemmas experienced by psychological counselors working at different institutions and their attitudes and behaviors as a response to these dilemmas. *Educational Sciences: Theory and Practice*, 12(3), 1806–1812.
- American Telemedicine Association. (2014). Core operational guidelines for telehealth services involving provider-patient interactions. https://www.uwyo.edu/wind/_files/docs/wytn-doc/toolkit-docs/ata_core_provider.pdf
- Axelrod, S., Spreat, S., Berry, B., & Moyer, L. (1993). A decision-making model for selecting the optimal treatment procedure. In R. Van Houten & S. Axelrod (Eds.), *Behavior analysis and treatment*. Springer. https://doi.org/10.1007/978-1-4757-9374-1_8
- Bailey, J. S., & Burch, M. R. (2016). *Ethics for behavior analysts* (3rd ed.). Routledge.
- Bannerman, D. J., Sheldon, J. B., Sherman, J. A., & Harchik, A. E. (1990). Balancing the right to habilitation with the right to personal liberties: The rights of people with developmental disabilities to eat too many doughnuts and take a nap. *Journal of Applied Behavior Analysis*, 23(1), 79–89. <https://doi.org/10.1901/jaba.1990.23-79>

- Beauchamp, T. L., & Childress, J. F. (2019). *Principles of biomedical ethics* (8th ed.). Oxford University Press.
- Behavior Analyst Certification Board. (2020). Ethics code for behavior analysts. Retrieved from <https://bacb.com/wp-content/ethics-code-for-behavior-analysts/>
- Beveridge, S., Garcia, J., & Siblo, M. (2015). Comparison of ethical dilemmas across public and private sectors in rehabilitation counseling practice. *Rehabilitation Research, Policy, and Education*, 29(3), 221–240. <https://doi.org/10.1891/2168-6653.29.3.221>
- Brodhead, M. T. (2015). Maintaining professional relationships in an interdisciplinary setting: Strategies for navigating nonbehavioral treatment recommendations for individuals with autism. *Behavior Analysis in Practice*, 8(1), 70–78. <https://doi.org/10.1007/s40617-015-0042-7>
- Brodhead, M. T., Cox, D. J., & Quigley, S. P. (2022). *Practical ethics for effective treatment of autism spectrum disorder*. Academic Press.
- California Code of Regulations. (2020). Title 17. Public health. August 2, 2020 Retrieved from [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I38842B20D60511DE88AED-DE29ED1DC0A&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I38842B20D60511DE88AED-DE29ED1DC0A&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))
- Chenneville, T., & Schwartz-Mette, R. (2020). Ethical considerations for psychologists in the time of COVID-19. *American Psychologist*, 75(5), 644–654. <https://doi.org/10.1037/amp0000661>
- Cox, D. J. (2019). Ethical considerations in interdisciplinary treatments. In R. D. Rieske (Ed.), *Handbook of interdisciplinary treatments for autism spectrum disorder* (pp. 49–62). Springer.
- Gambrill, E. (2005). *Critical thinking in clinical practice: Improving the quality of judgments and decisions* (2nd ed.). Wiley.
- Harris, S. L., & Handleman, J. S. (1990). *Aversive and nonaversive interventions: Controlling life-threatening behavior by the developmentally disabled*. Springer.
- Howe, K. R., & Miramontes, O. B. (1992). *The ethics of special education*. Teachers College Press.
- Huang, W., & Rubin, S. E. (1997). Equal access to employment opportunities for people with mental retardation: An obligation of society. *Journal of Rehabilitation*, 63(1), 27–33.
- Kazdin, A. E. (1975). *Behavior modification in applied settings*. Dorsey Press.
- Landes, T. L. (1999). Ethical issues involved in patients' rights to refuse artificially administered nutrition and hydration and implications for the speech-language pathologist. *American Journal of Speech-Language Pathology*, 8(2), 109–117. <https://doi.org/10.1044/1058-0360.0802.109>
- Lang, R., Rispoli, M., Machalicek, W., White, P. J., Kang, S., Pierce, N., Mulloy, A., Fragale, T., O'Reilly, M., Sigfoos, J., & Lancioni, G. (2009). Treatment of elopement in individuals with developmental disabilities: A systematic review. *Research in Developmental Disabilities*, 30(4), 670–681. <https://doi.org/10.1016/j.ridd.2008.11.003>
- LaVigna, G. W., & Donnellan, A. M. (1986). *Alternative to punishment: Solving behavior problem with non-aversive strategies*. Irvington Publishers.
- Menendez, A. L., Mayton, M. R., & Yurick, A. (2017). Board certified behavior analysts and related ethical and professional practice considerations for rural schools. *Rural Special Education Quarterly*, 36(1), 31–37. <https://doi.org/10.1177/8756870517703397>
- Millard, R. P., & Rubin, S. E. (2006). Ethical considerations in rehabilitation case management practice. In R. T. Roessler & S. E. Rubin (Eds.), *Case management and rehabilitation counseling: Procedures and techniques* (4th ed., pp. 247–270). Pro-Ed.
- Monlux, K. D., Pollard, J. S., Rodriguez, A. Y., & Hall, S. S. (2019). Telehealth delivery of function-based behavioral treatment for problem behaviors exhibited by boys with Fragile X Syndrome. *Journal of Autism and Developmental Disorders*, 49(6), 2461–2475. <https://doi.org/10.1007/s10803-019-03963-9>
- Newhouse-Oisten, M. K., Peck, K. M., Conway, A. A., & Frieder, J. E. (2017). Ethical considerations for interdisciplinary collaboration with prescribing professionals. *Behavior Analysis in Practice*, 10(2), 145–153. <https://doi.org/10.1007/s40617-017-0184-x>
- Paliwoda, J. (2005). Bringing your ethics policy to life. *Behavioral Health Management*, 25(3), 22–24.
- Peters, M., & Heron, T. E. (1993). When the best is not good enough: An examination of best practices. *The Journal of Special Education*, 26(4), 371–385. <https://doi.org/10.1177/002246699302600403>
- Pollard, J. S., Karimi, K. A., & Ficcaglia, M. B. (2017). Ethical considerations in the design and implementation of a telehealth service delivery model. *Behavior Analysis: Research and Practice*, 17(4), 298–311. <https://doi.org/10.1037/bar0000053>
- Rawls, J. (1958). Justice as fairness. *Philosophical Review*, 67(2), 164–194. <https://doi.org/10.2307/2182612>
- Roessler, R. T., & Rubin, S. E. (2006). In *Case management and rehabilitation counseling: Procedures and techniques* (4th ed.). Pro-Ed.
- Romani, P. W., & Schieltz, K. M. (2018). Ethical considerations when delivering behavior analytic services for problem behavior via telehealth. *Behavior Analysis, Research and Practice*, 17(4), 312–324. <https://doi.org/10.1037/bar0000074>
- Singh, N. N., Lloyd, J. W., & Kendall, K. A. (1990). Nonaversive and aversive interventions: Issues. In A. C. Repp & N. N. Singh (Eds.), *Perspectives on the use of nonaversive and aversive interventions for persons with developmental disabilities* (pp. 4–16).
- Skinner, B. F. (1953). *Science and human behavior*. Collier-MacMillan.

- Sturmey, P. (2005). Ethical dilemmas and the most effective therapies. In J. W. Jacobson, R. M. Foxx, & J. A. Mulick (Eds.), *Controversial therapies for developmental disabilities: Fad, fashion, and science in professional practice* (pp. 435–449). Routledge.
- Suarez, V. D., Marya, V., Weiss, M. J., & Cox, D. (2022). Examination of ethical decision-making models across disciplines: Common elements and application to the field of behavior analysis. *Behavior Analysis in Practice*. Advance Online Publication. <https://doi.org/10.1007/s40617-022-00753-1>
- Sue, D., Ino, S., & Sue, D. M. (1983). Nonassertiveness of Asian Americans: An inaccurate assumption? *Journal of Counseling Psychology*, 30(4), 581–588. <https://doi.org/10.1037/0022-0167.30.4.581>
- The Council of Autism Service Providers. (2020). Practice parameters for telehealth-implementation of applied behavior analysis: Continuity of care during the COVID-19 pandemic. Author.
- Toriello, P. J., & Benshoff, J. J. (2003). Substance abuse counselors and ethical dilemmas: The influence of recovery and education level. *Journal of Addictions and Offender Counseling*, 23(2), 83–98. <https://doi.org/10.1002/j.2161-1874.2003.tb00173.x>
- Van Houten, R., Axelrod, S., Bailey, J. S., Favell, J. E., Foxx, R. M., Iwata, B. A., & Lovaas, O. I. (1988). The right to effective behavioral treatment. *Journal of Applied Behavior Analysis*, 21(4), 381–384. <https://doi.org/10.1007/bf03392464>
- Wacker, D. P., Lee, J. F., Dalmau, Y. C. P., Kopelman, T. G., Lindgren, S. D., Kuhle, J., Pelzel, K. E., & Waldron, D. B. (2013). Conducting functional analyses of problem behavior via telehealth. *Journal of Applied Behavior Analysis*, 46(1), 31–34. <https://doi.org/10.1002/jaba.29>
- White, T. I. (1993). *Business ethics: A philosophical reader*. Macmillan Publishing company.
- Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11(2), 203–214. <https://doi.org/10.1901/jaba.1978.11-203>
- Wrape, E. R., & McGinn, M. M. (2018). Clinical and ethical considerations for delivering couple and family therapy via telehealth. *Journal of Marital and Family Therapy*, 45(2), 296–308. <https://doi.org/10.1111/jmft.12319>
- Young-Pelton, C. A., & Dotson, T. D. (2017). Ethical issues in rural programs for behavior analysis for students with disabilities. *Rural Special Education Quarterly*, 36(1), 38–48. <https://doi.org/10.1177/8756870517703407>

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