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Assent in applied behaviour analysis and positive behaviour support: ethical considerations and practical recommendations

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The term positive behaviour support (PBS) is used to describe the integration of the contemporary ideology of disability service provision with the clinical framework of applied behaviour analysis (ABA). Assent, the participation consent of those not legally able to consent, has gained recent popularity in the fields of ABA and PBS. The goal of assent-based ABA and PBS is a person-centered approach to assessment, intervention, and all other decision-making. In this model, the learner's assent withdrawal for participation is honored, whether it be a vocal 'no' or a non-vocal expression of verbal behaviour. There is currently a limited subset of studies that mention or utilize assent with learners in ABA or PBS. The lack of published research can make assent-based practices seem to be a choice of the practitioner. The authors of this manuscript seek to further define assent, illuminate the necessity of assent-based practices, and offer assent-based procedures in ABA- and PBS-based intervention.

Keywords: assent; assent withdrawal; disability; choice; dignity; supported decision-making

The purpose of this article is to discuss the role and value of person-centered values, supported decision-making, ethics, and human rights within the professional disciplines of applied behaviour analysis (ABA) and positive behaviour support (PBS). Specifically, we seek to define assent and give practical recommendations for utilizing assent in ABA- and PBS-based intervention.

Defining applied behaviour analysis

A simple definition of ABA is the applied use of the principles of operant psychology to solve problems of social significance (Baer *et al*. 1968). In the five decades that have passed since this definition was articulated, ABA has made considerable contributions to a variety of areas including comprehensive attention to disability services, organizational and systems change, behavioural medicine, and support for concerns experienced by so many (i.e. feeding, weight management, sleeping) (Hayes *et al*. 1980). Dillenburger and Keenan (2009) expanded on the definition offered by Baer *et al*. (1968):

> ABA brings improvements and change in socially relevant behaviours within the context of the individual's social environment; is conducted within the scientific framework; focuses on functional relationships and replicable procedures; is conceptually systematic and reflective; achieves measurable changes in relevant target behaviours that last across time and environments; is accountable, public, doable, empowering, optimistic; and is more effective than eclectic treatments. Aversive methods are avoided in favour of interventions based on functional assessment and functional analysis and positive reinforcement. (p. 194)

Similarly, Keenan and Dillenburger (2018) offered a definition more targeted to a clinical approach that covers the seven dimensions of ABA as described by Baer *et al*. (1968):

> It is applied to problems of demonstrated social importance; it has measurable behavioural outcomes; it uses systematic analysis to demonstrate that specific procedures produce specific effects; procedures are technologically described well enough to be replicated; it is conceptually compatible with behaviourism; it uses effective procedures with strong, socially important effects; and it achieves generality from the outset to ensure longevity of effects. When working with individuals, no single intervention is used in a one-size-fits-all approach. Instead, the scientific method is used. Central to the scientific method is the notion that decisions about procedures are guided by, and evolve with, the progress of the learner. There is no 'normalising agenda', but instead the goal is to work in partnership to arrange educational

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> experiences that maximise the individual's skills levels. Doing so increases behavioural repertoires and choices and alleviates obstacles to independent living. (p. 33)

In both definitions, the breadth in application of the strategies within ABA is highlighted as well as the dimensions required for use of the label applied behaviour analysis. Categories of central themes include general principles, assessment, intervention, and outcomes/measurement. General principles of contemporary applications of ABA include the selection and analysis of target behaviours and behaviour change procedures that are: of social importance, conceptually systematic, empower clients, individualized, minimize aversive procedures, and maximize choices and behavioural repertoires. Central themes related to assessment and intervention in ABA include data analysis, the use of functional behaviour assessment and functional behaviour analysis to guide interventions, and the demonstration of functional relations. Themes related to outcomes include significant and generalizable behavioural change. These convergent themes define ABA, making ABA application of an expansive science that is easily used with a wide variety of situations, settings, behaviours, and populations.

Defining positive behavior support and its relation to applied behaviour analysis

Positive behaviour support (PBS) is an applied science that encompasses a variety of evidence-based practices and educational methods to improve an individual's quality of life and minimize problem behaviours (Carr *et al*. 1999, 2002, Singer and Wang 2009). In PBS, the positive behaviours targeted for increase are those behaviours considered to be adaptive and likely to increase personal satisfaction and access to desired activities (Carr *et al*. 2002). Tincani (2007) describes PBS as a unique application of ABA, which focuses on the following core components:

> (a) achievement of comprehensive lifestyle change and improvement of quality of life across the lifespan; (b) incorporation of person-centered values and stakeholder input; (c) ecological and social validity of interventions; (d) a focus on prevention; (e) systems change; (f) functional assessment of problem behavior; (e) multi-component intervention; and (f) empirical validation of behavior change procedures. (p. 493)

These components align well within the dimensions of ABA, validating the notion that PBS is not a separate science from ABA but rather a specific application of ABA. Though PBS fits within the dimensions of ABA, PBS does not encompass the breadth of ABA research and application. Instead, PBS is a specialized approach of ABA, not unlike precision teaching or organizational behaviour management (Tincani 2007).

Assent: An emerging but important concept in ABA and PBS

Consent is a noun used to describe the agreement to participate. It is most often legally and ethically required for all ABA-based intervention services, as well as many other medical, educational, and psychological services. Typically, practitioners of ABA or PBS obtain informed consent from a learner or their legal guardian at the start of services, for any new services, and for any forms of research (Behavior Analyst Certification Board 2020). Informed consent involves making the learner or the learner's guardian aware of what will happen during the provision of services, the potential benefits and risks of proposed interventions, how data will be used, and the right to remove consent to participate at any time without penalty (United States Department of Health and Human Services 2021, Dockett *et al*. 2012, Fabrizio 2005, Smith and Breaux 2020).

The concept of *assent* is a legal extension of consent. While informed consent is codified within law and a common component of ethical and professional codes of conduct in most helping professions, assent is a recently emerging legal and ethical concept. Assent is generally described as the legal agreement of someone who is not able to provide informed consent to participate, such as children or people with intellectual and developmental disabilities who participate in research.

Although assent is an important and emerging topic in ABA and PBS, a comprehensive definition of the term has not been put forth. To address this gap, we identified multiple definitions of assent across disciplines and analyzed the definitions to identify common themes. Table 1 displays definitions of assent in research (Code of Federal Regulation 2021, Dockett *et al*. 2012, 2013, Huser *et al*. 2022, Vitiello 2003), medicine (Ford *et al*. 2007), and behaviour services (Behavior Analyst Certification Board 2020, Breaux 2020a, Fabrizio 2005).

All reviewed definitions stated that assent was *in addition* to guardian consent and/or in lieu of legal consent. The strongest theme across all types of assent definitions was agreement to participate. Multiple definitions mentioned 'voluntarily' or 'without coercion', suggesting that assent cannot be provided via coercion (Fabrizio 2005, Huser *et al*. 2022) and that the 'absence of objection' or 'failure to object' was not sufficient to infer the presence of assent (Code of Federal Regulation 2021, Vitiello 2003). Similar to consent, assent was also described as able to be revoked or withdrawn at any time, a concept termed 'dissent' (Dockett *et al*. 2012, 2013) or 'assent withdrawal' (Breaux 2020a, Fabrizio 2005). All but one definitions referencing clinical or medical practice (Breaux 2020a, Fabrizio 2005, Ford *et al*. 2007) mentioned directly or

Table 1. Definitions of Assent.

Definition	Citation
Assent is meant to be an explicit, affirmative agreement to participate, not merely absence of objection.	Vitiello 2003
To agree to something freely and with understanding. Giving assent is coming to a task willingly, participating in learning interactions without coercion.	Fabrizio 2005
Assent is the term used to convey a sense of agreement obtained from those who are not able to enter into a legal contract.	Ford et al. 2007 (p. 21)
Where children are considered unable—either legally or by virtue of their developmental status—the concept of assent is often invoked. When children are invited to either consent or assent to participation, they retain the right to dissent.	Dockett et al. 2012 (p. 245)
Assent acts as a supplement to the legal requirement of consent provided by a parent or guardian … agreement for participation.	Dockett et al. 2013 (p. 804)
Vocal or nonvocal verbal behavior that can be taken to indicate willingness to participate in research or behavioral services by individuals who cannot provide informed consent (e.g. because of age or intellectual impairments).	Behavior Analyst Certification Board 2020 (p. 7)
The expression of approval or agreement by someone not legally able to give consent. Assent can be given vocally/verbally, can be given in contract form, can be given using behaviours, can be revoked at any time.	Breaux 2020a
Assent means a child's affirmative agreement to participate in research. Mere failure to object should not, absent affirmative agreement, be construed as assent.	United States Department of Health and Human Services 2021
Children's 'active agreement' to participate voluntarily.	Huser et al. 2022 (p. 49)

in adjacent sentences that the provision of assent is a dynamic and ongoing process, not a singular event. Based on these definitions, *assent* is the agreement to participate by an individual who is unable to legally consent that can be revoked or withdrawn at any time (i.e. assent withdrawal or dissent), and *assent withdrawal* is the nonagreement to participate by an individual who is unable to revoke or withdraw legal consent.

Assent-based intervention is a phrase used to describe a way of delivering services that emphasizes and actively seeks to obtain learner assent. In assent-based intervention, both assent and assent withdrawal are individually defined for the learner, continuously evaluated, and responded to during interactions between the interventionist (e.g. BCBA, therapist, teacher or parent). As part of the delivery of intervention, the learner is provided with opportunities to provide and withdraw their assent, and the teaching of related choice-making behaviour is prioritized. Data on the provision of assent, the withdrawal of assent, and the related skills of choice making and functional communication are collected, analyzed, and used as decision-making tools within and across intervention sessions.

The relation between assent and human rights

Assent is a human right that is inequitably afforded to those deemed 'competent' by the culture and society they inhabit. In other words, individuals with intellectual and developmental disabilities may be assumed to be incapable of providing and withdrawing assent. However, the human rights model of disability asserts that individuals with disabilities have the same fundamental rights and freedoms as everyone else, including the right to choose, and disability should not be used as an excuse to deny a person access to their rights and freedoms. The human rights model of disability centers the voices and choices of the person with disabilities in all aspects of decision making about their own life, regardless of diagnostic characteristics, perceived competence, or the culture or society they inhabit (Lawson and Beckett 2021). Respect of assent and assent withdrawal is paramount to dignity, equality, and decision making (Breaux 2020a). The fundamental principles of the human rights model are encapsulated in the *United Nations Convention on the Rights of Persons with Disabilities* (CRPD; United Nations 2006), which gives clear directives on the rights of persons with disabilities regardless of their age, gender, ethnicity, or socioeconomic status. Of relevance are Articles 7, 8, 14, and 21, which state:

(a) States Parties shall ensure that children with disabilities have the right to express their views freely on all matters affecting them, their views being given due weight in accordance with their age and maturity, on an equal basis with other children, and to be provided with disability and age-appropriate assistance to realize that right (Article 7)

(b) States Parties undertake to adopt immediate, effective and appropriate measures: (a) To raise awareness throughout society, including at the family level, regarding persons with disabilities, and to foster respect for the rights and dignity of persons with disabilities; (b) To combat stereotypes, prejudices and harmful practices relating to persons with disabilities, including those based on sex and age, in all areas of life; and (c) To promote awareness

of the capabilities and contributions of persons with disabilities (Article 8)

(c) States Parties shall ensure that persons with disabilities, on an equal basis with others, enjoy the right to liberty and security of person (Article 14)

(d) States Parties shall take all appropriate measures to ensure that persons with disabilities can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice (Article 21)

In addition, the general principles of the CRPD (United Nations 2006) include respect for inherent dignity; individual autonomy including the freedom to make one's own choices, and independence of persons; full and effective participation and inclusion in society; respect for difference and acceptance of persons with disabilities as part of human diversity and humanity; and equality of opportunity. Incorporating strategies for obtaining assent and responding to assent withdrawal during ABA and PBS-based services is one way to protect and uphold the dignity, autonomy, and independence of the learner during intervention. Respecting the assent, or assent withdrawal, of another person is a crucial part of acceptance of persons with disabilities as part of human diversity (Breaux 2020a). Teaching an assent repertoire allows for more choice, voluntary participation and inclusion, and equality of opportunity for persons with disabilities (Smith and Breaux 2020). It is the position of these authors that assent and assent procedures allow practitioners of ABA and PBS to apply these values more broadly and more consistently, thus upholding the rights afforded by the CRPD more equitably.

The relation between assent and professional ethics

The Behavior Analyst Certification Board (BACB) recently updated *The Ethical Compliance Code for Behavior Analysts* with *The Ethics Code for Behavior Analysts* (Behavior Analyst Certification Board 2014, Behavior Analyst Certification Board 2020). *The Ethics Code for Behavior Analyst*s offers more specific practice outlines for assent and dignity than *The Ethical Compliance Code for Behavior Analysts* (Behavior Analyst Certification Board 2014, 2020). To summarize ethical requirements connected to person-centered values, practitioners of ABA are required to: (a) 'involve clients and relevant stakeholders throughout the service relationship' (p. 11); (b) obtain informed consent, and assent when applicable; and (c) 'act in the best interest of learners, taking appropriate steps to support learners' rights, maximize benefits, and do no harm … ' (p. 13) (Behavior Analyst Certification Board 2020). The language of 'when applicable' when referencing assent allows for practitioners to decide when assent and assent protocols are utilized. Cultural and societal norms of communication and autonomy have been found to influence attitudes toward assent (Onoh *et al.* 2014) that may limit the opportunities assent is recruited. The rights and assent withdrawal behaviours of learners with perceived ability and competence are often more respected by professionals (French *et al.* 2010); but we argue that learner's rights and respecting the assent of learners can be more broadly applied within the field of ABA, regardless of the perceived ability of the learner.

The relation between assent and ableism

Assent, the free and voluntary agreement to participate, is not afforded equitably across all ages and perceived abilities (Dockett *et al.* 2012). In research, judgment about the capacity to assent is often related to age or perceived competence to understanding the research and potential outcomes (Heath *et al.* 2007). In ABA-based practice, where a significant proportion of recipients may not be perceived by others as competent to assent, it is important to reflect on ableism when considering the concepts of assent and assent withdrawal.

Ableism was first used in disability advocacy to describe discrimination in favor of able-bodied people, but in addition is now used to describe discrimination in favor of nondisabled individuals (Kapp *et al.* 2013). Ableism can affect how a practitioner balances duty of care with dignity of risk (Friedman 2021). In ABA-interventions, ableism may support a practitioner choosing an effective yet aversive intervention, to meet their duty of care or service provision, over an intervention with a history of learner assent, which affords more dignity of risk. In ABA-intervention, any form of the learner's assent withdrawal behaviour should be honored, even if that learner would prefer to engage in a behaviour not prioritized by the practitioner instead of engaging in the planned activities (Fabrizio 2005, Breaux 2020b). Practitioners should use this information to modify future activities to support voluntary participation, which is discussed later in this paper. For example, if the learner leaves the workspace to stack rocks instead of completing a puzzle, the practitioner can honor that assent withdrawal and consider incorporating rocks, stacking, or some combination into a future activity. The next section gives suggestions and guidelines for respecting assent withdrawal and incorporating assent procedures for all learners.

Practical recommendations for developing and delivering assent-based intervention

It is the position of the authors that for practitioner to fully adhere to the BACB's *Ethics Code for Behavior Analysts*, the *United Nations Convention on the Rights of Persons with Disabilities*, and the current (though

limited) body of research on assent, practitioners implementing behaviour analytic interventions, including PBS, should implement *assent-based intervention* as a service delivery model. Assent-based intervention goes beyond simply obtaining the learner's assent and/or honoring their assent withdrawal during an intervention session. Assent-based intervention is a model of intervention in which a learner's uncoerced assent to participation is critical to all treatment-based decisions, whether these decisions occur within a single treatment session or across multiple treatment sessions. The critical features of assent-based intervention include:

(1) learner assent and assent withdrawal behaviours are informed, individually defined for the learner, continually evaluated, and characteristically reinforced throughout the session
(2) instruction on assent, self-advocacy, and related repertoires is carefully designed, delivered, and evaluated
(3) data on assent, the withdrawal of assent, and related skill repertoires are collected, analyzed, and used in decision-making within and across intervention sessions

We suggest that assent-based intervention is not yet widely practiced in ABA and PBS. Few peer-reviewed publications outline the critical features of an assent-based approach to intervention or how to apply this approach within everyday clinical practice. Assent is rarely evaluated or obtained as part of the research process (Morris *et al*. 2021), and, historically, behaviour analysts have received certification without any required training on assent (Behavior Analyst Certification Board 2017). Further, behaviour analysts rarely involve the direct recipients of behaviour analytic interventions in the social validation process (Hanley 2010). A lack of published guidelines on how to incorporate and evaluate assent and assent withdrawal as part of ABA- and PBS-based interventions may result in practitioners adopting and applying assent-based procedures haphazardly (or not at all) as part of the provision of services.

Defining assent for a learner

Developing functional and topographical definitions

It is critical to conceptualize an individual learner's assent and assent withdrawal both in terms of what it looks like (topography) and why it is happening (functionally). Practitioners cannot broadly define assent and assent withdrawal topographically across all learners—each learner presents with their own function (or *why*) and topography (or *how*). As with other behaviour change procedures implemented by practitioners, the first step to reinforcing a learner's assent withdrawal is to develop a detailed functional definition. In addition to a strong functional definition, establishing a detailed list of the common topographical forms of assent and assent withdrawal for a specific learner ensures the reliable communication of information across the treatment team. Establishing these definitions and examples may include both direct and indirect methods: interviewing the learner themselves, interviewing stakeholders (e.g. teachers, practitioners, parents), observing the learner in their therapeutic context, and/or observing the learner in other contexts (e.g. school, work; Hanley 2012).

A learner will likely use a myriad of topographies to give or withdraw assent, depending on the environment, relationship with instructors, the aversiveness of the stimuli, and the exact treatment features from which they withdraw assent. When creating the list of assent and assent withdrawal behaviours specific to the learner, practitioner should list all possible topographies, even those that are considered 'socially unacceptable'. Table 2 includes an example list of topographies of assent and assent withdrawal. These are categorized into 'vocal' and 'non-vocal' sub-groups to reiterate that learners can demonstrate a variety of different forms of behaviour to withdraw assent and that a learner's verbal skills (or lack thereof) should not determine whether they can assent (Morris *et al*. 2021).

Assent to treatment conditions

A learner's assent extends to all features of treatment. Assenting to treatment does not simply refer to the learner's agreement to participate in a traditional 'tablework' task. Instead, assenting to treatment more globally refers to a learner's assent to participate with environmental stimuli and contingencies (*treatment conditions*). These stimuli may be in the learner's current environment or may exist or be perceived in other environments. Contingencies may be stated or implied by the practitioner or perceived by the learner. Treatment conditions (or, more globally, 'treatment') includes every interaction between the learner and their environment during the therapeutic session. The following demonstrate the range of treatment conditions a learner experiences: a perceived or actual demand (e.g. social question, request to transition), the presence of and relationship between environmental stimuli (e.g. bright light, table positioned to block the learner from freely leaving the workspace), or the absence of stimuli (e.g. limited preferred activities, minimally delivered reinforcers). Redefining treatment in this way promotes the practice of analyzing all factors to which a learner assents, which requires practitioners to engage in a much more refined analysis of the variables that may influence learner assent.

To ensure the consideration of all treatment conditions and their impact on a learner's assent, it may benefit treatment teams to categorize assent more specifically, based on treatment features—(e.g. assent to

Table 2. Example Topographies of Assent and Withdrawal.

Possible Topographies of Assent	
Vocal	Non-vocal
Answers 'yes' or a functionally equivalent phrase	Nods
	Signals 'start' by touching 'start' picture icon
	Touches a 'yes' icon
	Leans in toward practitioner or materials and smiles
	Reaches for materials
	Takes materials and arranges materials for instruction
	Enters the treatment area
	Approaches and sits with the practitioner
Possible Topographies of Assent Withdrawal	
Vocal	Non-vocal
Answers or says 'no'	Touches 'stop' or 'all done' icon
Says 'stop' or any functionally equivalent phrase, word, or sound	Shakes head no
Negative statements about task, practitioner, session	Ignores or does not respond to the practitioner (non-response)
Repeated attempts to talk about a different topic	Leans away
	Turns body away from the practitioner or workspace
	Swipes or throws materials
	Runs from treatment environment
	Looks in opposite direction from work
	Refuses to transition (to/from environment, activity, people)
	Aggression
	Self-injury
	Elopement

interaction, assent to skill building instruction, assent to physical prompting, assent to enter a treatment space, etc). Doing so minimizes the possibility of over-assuming assent. For example, a practitioner may assume a learner assents to a physical prompting procedure because the learner approached and sat down next to the practitioner at the start of skill instruction, however, the learner did not actually assent to the prompting procedure, but instead assented to sitting in proximity and/or engaging in the skill instruction with the practitioner; the practitioner needs to also obtain assent to physically prompt the learner. Additionally, continuously updating assent and assent withdrawal topographies and reviewing changes with the treatment team promotes fidelity in responding to the learner's varied forms of assent withdrawal.

Assent withdrawal: What next?

Often, practitioners hesitate to offer assent withdrawal as an option. They say or think, 'Am I just giving them an option to get out of work?' The short answer is, yes. Learners must know that they always have the option to revoke their assent. Telling the learner that they can withdraw their assent reinforces that assent to treatment is the learner's *choice*, not an expectation that will be enforced by any means necessary. Forcing an unwilling learner into a situation through coercion, physical intervention, or other strategies degrades trust and can complicate the therapeutic relationship. In addition, the use of physical strategies to force participation may lead to further challenging behaviour that poses a safety risk to the person or others, which can lead to the use of restrictive practices, such as restraint and seclusion (Trader *et al*. 2017). Conversely, offering the choice to participate strengthens the therapeutic relationship, builds the learner's confidence in choice-making, and increases the individualization of the treatment design (Morris *et al*. 2021, Rajaraman *et al.* 2021, Shogren *et al*. 2017).

The following proposed framework provides practitioners with a methodical procedure for responding to a learner's assent withdrawal. When a learner withdraws assent, the practitioner's first step is to reinforce that withdrawal of assent by terminating the treatment conditions to which the learner does not assent. As outlined in the previous section, treatment conditions refer to stimuli and contingencies experienced by the learner. This may include work/reinforcement conditions, a social interaction with the practitioner, a transition into a new location, etc. The second step is to decide if the practitioner should (a) not re-introduce treatment conditions for the duration of the treatment session, (b) re-present treatment conditions later during the treatment session, (c) re-present treatment conditions with features of the conditions modified, added, omitted, or with accommodations. Figure 1 illustrates this choice model.

Option 1: Do not re-present the treatment conditions

If the learner's assent withdrawal is a function of features of treatment that cannot be adjusted within the session, the practitioner cannot manage the intensity of the learner's assent withdrawal, or the learner makes it clear that they will not engage in these conditions for the remainder of the treatment session, then the practitioner does not re-present treatment conditions (Figure 1, Option 1). After the practitioner decides to not re-present the treatment conditions in the present session, they have two options moving forward: (1) re-present

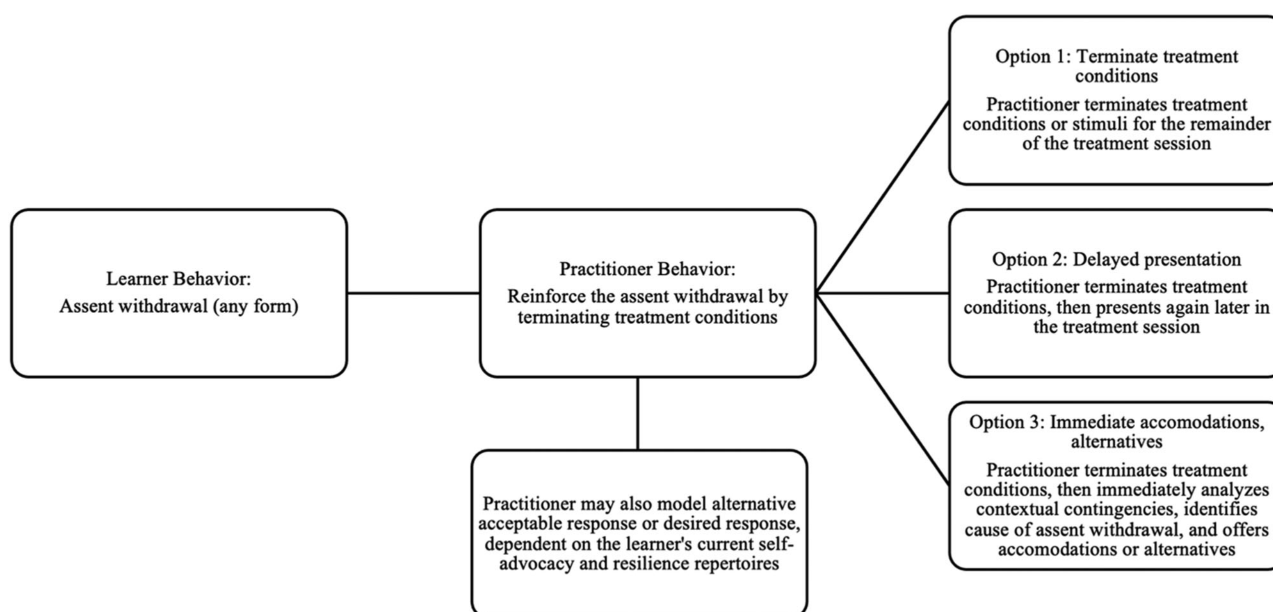

Figure 1. Choice Model: Responding to Assent Withdrawal.

during the next treatment session to determine if the learner's assent withdrawal is related to the specific conditions or feature of treatment or if it was evoked by other unidentified features of the environment, or (2) analyze the treatment conditions outside of the treatment session to determine which specific features evoke the learner's assent withdrawal, and then adjust those features for future implementation.

Option 2: Re-present the treatment conditions later

If the function of the learner's assent withdrawal is unknown or is based on other uncontrolled environmental stimuli, the practitioner re-presents the treatment conditions later in the treatment session (Figure 1, Option 2). This evaluates whether the learner's assent withdrawal is related to specific features presented by the practitioner, unrelated environmental stimuli present in the treatment setting, or private events experienced by the learner (e.g. fatigue, discomfort).

Option 3: Re-present the treatment conditions with modifications

If the cause of the learner's assent withdrawal is known and/or if the learner engages in mild (or precursor) assent withdrawal behaviours, the practitioner re-presents a modified version of the treatment conditions. Within this option, the practitioner has a hypothesis as to the features of instruction that evoked the assent withdrawal and how to modify these features to make a more acceptable treatment experience for the learner. This may include presenting the adjusted task to the learner and evaluating their assent to participate or engaging in this problem-solving practice *with the learner* to determine which features of the task they would like to change. Table 3 offers treatment features that may impact a learner's willingness to assent, and possible solutions.

Building repertoires: Skill building and skill refinement

Assent, self-advocacy, and choice-making are not simply things to include or measure as part of an intervention package; instead, these are also important outcomes of intervention. Behaviour within these repertoires, including assent to treatment, the withdrawal of assent, choice-making, manding to change work contingencies, tolerating a delay to reinforcement, etc., are operant behaviour (Skinner 1963). As such, these behaviours must be established, shaped, and refined through well-designed and sequenced behaviour analytic intervention (Tiemann and Markle 1990). Treatment goals focused on building skill repertoires should be included in the learner's behaviour analytic treatment plans as active treatment goals, regardless of the learner's age or skill level (Behavior Analyst Certification Board 2020, Rajaraman *et al.* 2021).

When selecting assent withdrawal behaviours and repertoires to establish or refine for a learner, practitioners must first identify the learner's current performance, define an acceptable 'short term' alternative, and identify a desired replacement behaviour. An acceptable short-term alternative behaviour serves the same function as the learner's initial response (e.g. terminates aversive or non-preferred stimuli), but requires minimal effort on the part of the learner and meets the expectations/rules that exist in the learner's context. Table 4 illustrates examples of this analysis.

In addition to refining the learner's form of assent withdrawal, it is essential to focus on building

Table 3. Treatment Feature Evoking Assent Withdrawal and Possible Variations and Accommodations.

Treatment Conditions	Accommodations and Variations
If the learner does not assent to entering or remaining in the treatment environment	Increase reinforcing features of the clinical environment Identify and remove aversive features/stimuli within the treatment environment Provide ample opportunities for non-contingent access to highly preferred items or activities Establish a positive therapeutic rapport between the practitioner and learner Significantly decrease task demands Select instructional arrangements that prove most beneficial for the learner based on their presenting skills and their engagement with the treatment environment (e.g. naturalistic learner-led instruction vs. discrete trial instruction)
If task demands are too difficult	Offer help Offer break Deliver error correction procedures Utilize different teaching arrangement Reduce performance criteria Reduce number of teaching trials Increase reinforcement for task completion
If the learner does not understand a task	Utilize teaching procedures to ensure understanding of the task (e.g. model, lead, test) Offer break(s) Show the learner the task using audio-visual supports (e.g. video on YouTube™) Give the learner an opportunity to 'be the teacher' and present the stimuli to the practitioner, then the practitioner demonstrates the expected response Increase reinforcement for persistence in engaging with the task
If the learner does not assent to some features of a teaching procedure	Do not physically touch the learner Provide opportunities for the learner to receive teaching, prompting, and error correction procedures in a less intrusive way (e.g. offer to guide the learner rather than physically prompt the learner) Modify the environment so the learner has a comfortable amount of personal space Speed up or slow down instruction to meet the learner's preferred instructional pace Increase opportunities for choice in instruction (e.g. where instruction occurs, at what pace, the number of teaching opportunities, etc.)
If the learner does not assent to an interaction with the practitioner	Significantly reduce practitioner demands Increase non-contingent access to reinforcing items in the environment Parallel play with the learner Focus primarily on improving therapeutic rapport between the learner and practitioner Increase opportunities for learner choice in interactions between the practitioner and learner (e.g. allow the learner to control interactions) Solicit and implement feedback from the learner on ways to improve the therapeutic relationship

Table 4. Examples of Refining Assent Topography.

Current Performance	Acceptable (Short-Term) Alternative	Desired Replacement Behaviour
Learner throws materials off table	Learner looks at or touches 'stop' symbol affixed to worktable	Learner uses AAC device or sign to say 'stop'
Learner runs from treatment room	Learner says 'no'	Learner mands for alternative (e.g. more time)

behavioural repertoires related to functional communication, making choice, and participation in treatment (Hanley *et al*. 2014, Rajaraman *et al.* 2021). These include, but are not limited to, functional communication training, resilience/tolerance, self-advocacy, self-management, and problem-solving. Building these replacement repertoires gives the learner skills necessary not only to manage their own experience and advocate for accommodations, but also to use strategies to complete difficult tasks, tolerate longer delays to reinforcement, and advocate for conditions that allow them to continue working comfortably (Smith and Breaux 2020).

Measurement and analysis

This model provides a basic framework through which practitioners promote and respond to assent and assent

Table 5. Measurement for Assent and Assent Withdrawal.

Assent Measures	*Assent Withdrawal Measures*
Frequency of the learner approaching and engaging with the practitioner outside of a perceived 'work' task	Frequency of assent withdrawal per session
Frequency of happiness indicators (individually defined for the learner—for example, smiling, laughing)	Frequency of *acceptable alternative (topographical)* assent withdrawal per session
Frequency of learner initiating engagement in treatment activities or with treatment materials	Frequency of *desired (topographical)* assent withdrawal per session
Frequency of staff offering opportunities for the learner to initiate assent	Notation on each skill/program when a learner withdraws assent
Latency to initiate a practitioner-directed task (i.e. work task)	Frequency of assent withdrawal per staff member
Latency to follow instruction from a practitioner	Frequency of staff offering opportunities for assent withdrawal
Latency to withdrawal assent from treatment features that previously evoked assent withdrawal	Intensity rating of assent withdrawal behaviours

withdrawal during treatment sessions. A critical aspect of this model is continual evaluation and procedure change, as needed. Through data collection and analysis, practitioners should adapt this model and individualize it for each learner, just as they do with behaviour support plans and skill-building interventions.

As a part of treatment evaluation, practitioners should collect and analyze data for both practitioner and learners, specific the instruction, opportunity, and demonstration of assent, choice, and related repertoires. Measuring practitioner behaviour related to on-going assent practices not only ensures the inclusion of these elements in therapeutic sessions, but it also allows supervisors to identify trends in the learner's data that occur because of practitioner performance. For example, if practitioners do not offer the opportunity to withdraw assent, learners may engage in higher intensities of assent withdrawal behaviour. To build skills and repertoires related to assent, as well as to refine existing topographies of behaviour, practitioners need to diligently implement assent-based procedures, including incorporating opportunities to initiate assent, withdraw assent, and demonstrate acceptable alternative or desired topographies of assent withdrawal.

Practitioners also must *respond* to data collected both within and across intervention sessions, simply collecting the data is insufficient. For example, a learner's assent withdrawal may occur during instruction on one specific skill or skill type, with one practitioner, at certain times during the session, or may indicate a physiological need not being addressed. Conversely, a learner's assent or self-advocacy guides practitioners in selecting future skills and repertoires to address as part of intervention. Table 5 offers possible options for data collection.

Conclusion and future directions

Practitioners of ABA- and PBS-based interventions must continue to evolve their practices to incorporate assent and prioritize learner dignity and choice (Breaux 2020a, Rajaraman *et al.* 2021). As part of this evolution, ABA- and PBS-based interventions need to universally define an individual's capability to make decisions and choices about their life, including their participation in treatment. As previously suggested in this paper, often capability is assigned based on perceived competence. We argue that capacity to make one's own decisions, including assenting to all or some aspects of ABA- and PBS-based interventions should be based on a human rights model and not be based on traditional legal and medical models, whereby an individual is capable to make decisions for themselves if, and only if, they can do so 'competently' without assistance from others. Limiting decision-making capacity based on this definition furthers the narrative that persons with disabilities are incapable to make decisions and not full members of society simply because of their disability and unique skill profile (Arstein-Kerslake *et al*. 2017). Instead, if we look to the current research on supported decision making, we can redefine capacity as the ability to make decisions for oneself with the appropriate supports in place (Arstein-Kerslake *et al*. 2017). With this refined definition of decision capability, all humans, with the correct supports, can choose whether to assent to treatment and/or treatment conditions.

Universally accepting that participation in treatment (assent) is an informed choice that can and must be made by anyone participating in ABA- and PBS-based intervention and can be withdrawn at any time (assent withdrawal) is the first step in moving service delivery to an assent-based model. Further publication on how to obtain informed assent, operationally define assent withdrawal, and identify and teach assent and choice-making repertoires is necessary to support the expansion of assent-based intervention across all ABA- and PBS-based interventions.

Though the literature on supported decision making is a growing rapidly, further research is also necessary to determine what constitutes 'informed assent'. Specifically focusing on the types of accommodations that are effective within supported decision making, how to evaluate the effectiveness of these accommodations, and how ensure they are free of influence and/or coercion (Bigby *et al*. 2015). Studies in this area may

focus on the accommodations for specific groups based on skill profiles of learners, for example, learners with limited vocal language, learners with visual or hearing impairments, or learners with limited auditory comprehension.

The very limited published data available on social validity from recipients of ABA-based interventions is extremely problematic and is often cited as another criticism by recipients of ABA and PBS, people with disabilities, and the autistic community. Hanley (2010) notes that this lack of measuring social validity is not necessarily because those practicing ABA-based interventions do not think that social validation by recipients is valuable. Not only is it important for researchers to further publish on the inclusion of learner's social validation of features of ABA and PBS-based interventions, but also for researchers to develop practices that can be easily incorporated into everyday clinical practice to measure social validity for all learners, regardless of the skills they do or do not demonstrate.

By placing learner assent and choice as necessary features of treatment, practitioners will establish more refined applications of ABA and PBS, that more fully establish choice-making repertoires and self-advocacy, and that establish a history of learner dignity and autonomy.

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References

Arstein-Kerslake, A., Watson, J., Browning, M., Martinis, J. and Blanck, P. 2017. Future direction in supported decision making. *Disability Studies Quarterly*, 37.

Baer, D. M., Wolf, M. M. and Risley, T. R. 1968. Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91–97.

Behavior Analyst Certification Board. 2014. *Professional and ethical compliance code for behavior analysts*. Littleton, CO: Behavior Analyst Certification Board.

Behavior Analyst Certification Board. 2017. *BACB/BCaBA coursework requirements*. <https://www.bacb.com/wp-content/uploads/2020/05/170113-BCBA-BCaBA-coursework-requirements-5th-ed.pdf>

Behavior Analyst Certification Board. 2020. *Ethics code for behavior analysts*. <https://bacb.com/wp-content/ethics-code-for-behavior-analysts/>.

Bigby, C., Whiteside, M. and Douglas, J. 2015. Supporting people with cognitive disabilities in decision making – processes and dilemmas. Melbourne: Living with Disability Research Centre, La Trobe University. <http://apo.org.au/files/Resource/final_full_report_for_support_for_decision_making_dilemmas_and_challenges_6_june_2015_0.pdf>.

Breaux, C. 2020a. *Assent in practice: Ensuring dignity for all learners* [online course]. CentralReach. <https://institute.centralreach.com/courses/assent-in-practice>.

Breaux, C. 2020b. *Assent, supervision, and the code* [online course]. CentralReach. <https://institute.centralreach.com/courses/supervising-with-assent-using-the-code-to-ensure-your-supervisees-are-using-assent-based-practices-with-learners>.

Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., Anderson, J. L., Albin, R. W., Koegel, L. K. and Fox, L. 2002. Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, 4, 4–16.

Carr, E. G., Horner, R. H., Turnbull, A. P., Marquis, J. G., McLaughlin, D. M., McAtee, M. L., Smith, C. E., Ryan, K. A., Ruef, M. B. and Doolabh, A. 1999. *Positive behavior support for people with developmental disabilities: A research synthesis*. Edited by D. Braddock. Washington, D.C.: American Association on Mental Retardation.

Dillenburger, K. and Keenan, M. 2009. None of the As in ABA stand for autism: Dispelling the myths. *Journal of Intellectual & Developmental Disability*, 34, 193–195.

Dockett, S., Einarsdóttir, J. and Perry, B. 2012. Young children's decisions about research participation: Opting out. *International Journal of Early Years Education*, 20, 244–256.

Dockett, S., Perry, B. and Kearney, E. 2013. Promoting children's informed assent in research participation. *International Journal of Qualitative Studies in Education*, 26, 802–828.

Fabrizio, M. A. 2005. Voting with their feet: The role of assent in behavior analytic intervention for children. Paper presented at the Going Beyond Expectations: Unique Solutions in Autism Education Conference. October. <https://docplayer.net/22287468-Creating-for-children-the-aba-program-companion.html>.

Ford, K., Sankey, J. and Crisp, J. 2007. Development of children's assent documents using a child-centered approach. *Journal of Child Health Care*, 11, 19–28.

French, P., Chan, J. and Carracher, R. 2010. Realizing human rights in clinical practice and service delivery to persons with cognitive impairment who engage in behaviours of concern. *Psychiatry, Psychology, and Law*, 17, 245–272.

Friedman, C. 2021. Disparities in social determinants of health amongst people with disabilities. *International Journal of Disability, Development and Education*, 1–17. doi:10.1080/1034912X.2021.2004299

Hanley, G. P., Jin, C. S., Vanselow, N. R. and Hanratty, L. A. 2014. Producing meaningful improvements in problem behavior of children with autism via synthesized analyses and treatments. *Journal of Applied Behavior Analysis*, 47, 16–36.

Hanley, G. 2010. Toward effective and preferred programming: A case for the objective measurement of social validity with recipients of behavior-change programs. *Behavior Analysis in Practice*, 3, 13–21.

Hanley, G. 2012. Functional assessment of problem behavior: Dispelling myths, overcoming implementation obstacles, and developing new lore. *Behavior Analysis in Practice*, 5, 54–72.

Hayes, S. C., Rincover, A. and Solnick, J. V. 1980. The technical drift of applied behavior analysis. *Journal of Applied Behavior Analysis*, 13, 275–285.

Heath, S., Charles, V., Crow, G. and Wiles, R. 2007. Informed consent, gatekeepers and go-betweens: Negotiating consent in child- and youth-oriented institutions. *British Educational Research Journal*, 33, 403–417.

Huser, C., Dockett, S. and Perry, B. 2022. Young children's assent and dissent in research: Agency, privacy and relationships within ethical research spaces. *European Early Childhood Education Research Journal*, 30, 48–62.

Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E. and Hutman, T. 2013. Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology*, 49, 59–71.

Keenan, M. and Dillenburger, K. 2018. How 'fake news' affects autism policy. *Societies*, 8, 29–49.

Lawson, A. and Beckett, A. E. 2021. The social and human rights models of disability: Towards a complementarity thesis. *The International Journal of Human Rights*, 25, 348–379.

Morris, C., Detrick, J. J. and Peterson, S. M. 2021. Participant assent in behavior analytic research: Considerations for participants with autism and developmental disabilities. *Journal of Applied Behavior Analysis*, 54, 1300–1316.

Onoh, R. C., Umeora, O. U. J., Ezeonu, P. O., Agwu, U. M., Lawani, L. O. and Ezeonu, C. T. 2014. Perception of assent in biomedical research among medical specialists and trainees in Abakaliki, Nigeria. *Adolescent Health, Medicine and Therapeutics*, 5, 183–189.

Rajaraman, A., Austin, J. L., Gover, H. C., Cammilleri, A. P., Donnelly, D. R. and Hanley, G. P. 2021. Toward trauma-informed applications of behavior analysis. *Journal of Applied Behavior Analysis*, 55, 40–61. doi:10.1002/jaba.881

Shogren, K. A., Wehmeyer, M. L., Lassmann, H. and Forber-Prayy, A. J. 2017. Supported decision making: A synthesis of the literature across intellectual disability, mental health, and aging. *Education and Training in Autism and Developmental Disabilities*, 52, 144–157.

Singer, G. H. S. and Wang, M. 2009. The intellectual roots of positive behavior support and their implications for its development. In: W. Sailor, G. Dunlap, G. Sugai, and R. Horner, eds. *Handbook of positive behavior support: Issues in clinical child psychology*. Boston, MA: Springer.

Skinner, B. F. 1963. Operant behavior. *American Psychologist*, 18, 503–515.

Smith, K. and Breaux, C. 2020. *Client assent and engagement during ABA telehealth* [Webinar]. CentralReach. August 12. <https://institute.centralreach.com/courses/client-assent-and-engagement-during-aba-telehealth>.

Tiemann, P. W. and Markle, S. M. 1990. *Analyzing instructional content: A guide to instructional content*. 4th ed. Champaign, IL: Stipes Publishing Company.

Tincani, M. 2007. Moving forward: Positive behavior support and applied behavior analysis. *The Behavior Analyst Today*, 8, 492–499.

Trader, B., Stonemeier, J., Berg, T., Knowles, C., Massar, M., Monzalve, M., Pinkelman, S., Nese, R., Ruppert, T. and Horner, R. 2017. Promoting inclusion through evidence-based alternatives to restraint and seclusion. *Research and Practice for Persons with Severe Disabilities*, 42, 75–88.

United Nations, 2006. Convention on the rights of persons with disabilities. *Treaty Series*, *2515*, 3.

United States Department of Health and Human Services, 2021. *Code of Federal Regulations. Protection of Human Subjects, 45 C.F.R. Sect. 46.* <https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/common-rule-subpart-d/index.html>.

Vitiello, B. 2003. Ethical considerations in psychopharmacological research involving children and adolescents. *Psychopharmacology*, 171, 86–91.