A Guide to Supervising Fieldwork

Introduction

It is important for behavior analysts that are supervising trainees that are completing fieldwork requirements toward a Board-Certified Behavior Analyst (BCBA) credential have a well-planned and structured approach to the fieldwork experience. A supervisor's role is filled with responsibility to plan, sequence, integrate, and track the fieldwork and skill acquisition of each supervisee. Therefore, it is important that a structured curriculum is established to help support these responsibilities and ensure that a wide range of topics are covered.

Supervisors will need to design activities for their supervisees and design methods for assessing the skill set of each supervisee. All aspects that are key to the supervision process should be covered. Additionally, providing feedback to the supervisee and receiving feedback on one's own supervision should also be integrated into a framework for supervision.

Assessments are typically utilized by behavior analysts to gather information about an individual's behavioral occurrences, skills that are within one's repertoire, and to develop a behavior change program that is effective. They are also utilized to determine pre-intervention levels of responding or the extent to which someone engages in a specified response prior to the onset of an intervention. The foundation of behavior analysis is built upon collecting and analyzing data. As a result, a comparison of the data prior to and after an intervention is vital. Therefore, it is important for behavior analysts to be able to identify the various strengths and deficits associated with different assessments so that they are able to select an appropriate assessment that will provide data that are beneficial to their behavior change program.

Applied behavior analysis is heavily based in science and works to design interventions that make improvements on human behavior that are socially important. As a result, behavior analysts heavily emphasize and place value on

interventions that are scientifically supported. These types of interventions are known as evidence-based practices (Gallagher, 2004). Behavior analysts are required to choose and implement interventions that coincide with behavior principles and are supported by scientific evidence (BACB, 2020). Therefore, it is important for a behavior analyst to understand how to select and implement an intervention so that their behavior change program is effective and produces socially significant results.

Self-management in ABA is a valuable tool for empowering individuals to regulate their own behaviors and achieve their goals. By incorporating goal setting, self-monitoring, self-evaluation, positive reinforcement, and task analysis, ABA practitioners can help individuals develop the skills necessary for successful self-management. Self-management abilities are a key component of success, independence, and personal development in the lives of all individuals, with or without disabilities. Self-monitoring and self-reinforcement that are able to occur in the moment are important to creating objectives in an effort to complete daily tasks, prioritizing tasks within one's life, and making deliberate decisions that will impact one's life.

In this course, participants will learn to (1) discuss methods for delivering performance feedback, (2) identify strengths and deficits of various assessments, and (3) discuss how to select and implement an intervention.

Section 1: Performance Feedback

As behavior analysts are welcomed with the opportunity to supervise others, they have the ability to influence a supervisee's professional development as well as the clients that they provide services to. The quality of a client's behavior program and interventions that they receive are a direct result of the quality of supervision and training that is provided to those receiving supervision (DiGennaro Reed &

Henley, 2015). If an intervention is implemented with poor fidelity, then the positive outcomes that were possible for the client may end up diminished (Carroll et al., 2013). Therefore, it is the responsibility of the behavior analyst as a supervisor to work diligently to prepare those receiving supervision to implement interventions with the utmost fidelity and to intervene when supervisees are seen as implementing a treatment intervention with poor fidelity.

When a behavior analyst decides to prepare a supervisee on how to implement a behavior change program, they should understand that this process is complex and that it will require the use of a multitude of instructional and supervisory approaches. There are a number of behaviors that supervisors should be knowledgeable in engaging in when preparing their supervisees (BACB, 2022). These behaviors include setting performance expectations, providing instructions that are clear, demonstrating behavior that is desired, rehearsing or role-playing, and providing feedback. While there may be many instructional approaches that are utilized, it is often found that the delivery of performance feedback is revered as one of the most valuable. It is important to note that verbal and written instruction by themselves will not change the performance of an individual on their own (Fixsen et al., 2005). The delivery of performance feedback is vital in the efforts to prepare supervisees in becoming behavior analysts that are competent (Carroll et al., 2022).

Research has shown that performance feedback is able to help improve fidelity in regard to how service providers implement skill acquisition and behavior reduction treatment interventions (Codding et al., 2005). Behavior analysts that are supervisors are guided to delivering feedback that is both timely and effective to their supervisors (BACB, 2022). Additionally, within the code of ethics that guide behavior analysts in their daily tasks, performance monitoring and feedback is one of many responsibilities that supervisors have as it coincides with supervision (BACB, 2020). Although performance feedback has been viewed as

being highly valuable, employers seldom prepare a supervisor on how to deliver performance feedback effectively (DiGennaro Reed & Henley, 2015). Research has indicated that although supervisors frequently provide performance feedback, these supervisors feel that there is room for growth within this specific area (Sellers et al., 2019). Additionally, there were five areas that were identified as being in need of improvement. Among those five areas, supervisors indicated that there were two areas directly related to the delivery of performance feedback that required attention: setting clear expectations for receiving feedback and the use of evaluations that were competency-based and to track outcomes.

Performance feedback is viewed as being information that is received regarding a performance that allows for an individual to change their own behavior (Daniels & Bailey, 2014). It is usually provided to improve the fidelity of intervention implementation (Solomon et al., 2012) and can be used to serve various functions. Praise that is delivered in feedback may act as a reinforcer, and corrective feedback may serve to punish a specific behavior. Furthermore, performance feedback can act as a prompt for a particular response in the next implementation of an intervention or act as a rule that controls behavior (Mangiapanello & Hemmes, 2015).

Performance feedback typically occurs as a result of a supervisor observing a supervisee implementing a behavior analytic approach. The following components are included within performance feedback (BACB, 2022):

- Review of performance data

- Correct responses are praised

- Errors are corrected using empathy statements

- A rationale is provided for changing incorrect performance

- Instruction is provided on to correct performance

- Correct performance is modeled or demonstrated

- An opportunity is provided for the supervisee to role-play the correct performance

- An opportunity is provided for the supervisee to ask questions

Research indicates that performance feedback can be delivered through a variety of formats. Performance feedback can be delivered through a one-on-one format or even within a group setting (Solomon et al., 2012). It can also be delivered in a verbal or written format. Feedback should be delivered as often as possible verbally as this will help to facilitate steps that are vital within the performance feedback process. However, this is not to minimize the effectiveness of written feedback as written feedback can also be an effective tool (Barton et al., 2016).

Effective Performance Feedback

When determining how to deliver performance feedback in an effective manner, there are several guidelines that should be followed (Sleiman et al., 2020). The first guideline to keep in mind is that feedback is the most effective when it is applied in an objective and competency-based manner. For example, instead of informing a supervisee that their session was not inviting to the individual, the supervisor should record the frequency of praise and correction statements that were delivered by the supervisee to the client and ways that they can improve upon this ratio. In an effort to ensure that the performance feedback that is delivered is objective and competency-based, procedural fidelity checklists should be utilized that contain behaviors that are observable to be monitored. Additionally, a behavior analyst should consider graphing the procedural fidelity across a period of time so that this data can be reported to the supervisee to determine if their performance is continuing to improve.

Performance feedback should also be specific. For example, instead of a supervisor informing a supervisee that they did a great job, the supervisor should specify the behaviors that were performed or exhibited that were correct. "You were able to immediately provide praise when the client washed their hands correctly. Great work!" If corrective feedback is delivered, this information should also be specific. It is important for a supervisor to understand that it is not enough to simply tell a supervisee that they made an error when they implemented the intervention. Instead, the supervisor should inform the supervisee exactly what needs to be corrected when implementing the intervention. For example, "You were not able to implement the consequence correctly when implementing the behavior intervention plan," should instead be stated to the supervisee as "You need to deliver the preferred reinforcer within three seconds contingent on a correct response from the client. I noticed that it took you 10 seconds before you would provide the preferred reinforcer."

Performance feedback should also be delivered in a positive manner. There have been times when most supervisees have experienced a situation where they have wanted to avoid a supervisor. This is often a result of feedback being delivered from a superior that would only contain corrective feedback. Therefore, knowing this information, a supervisor should understand that it is critical to avoid this mistake as it will result in a supervisee wanting to engage in avoidant behavior. As a result, the ultimate goal is that a supervisee will look for a supervisor so that they can receive feedback. However, this will only take place if the supervisor ensures that feedback is delivered with a sufficient amount of praise and positive feedback so it results in the experience of receiving feedback as being a positive experience for the supervisee.

A supervisor should also be sure to provide a supervisee with a rationale for changing an error that was made within the supervisee's performance. It can be an awkward experience for both the supervisor and supervisee when a supervisee

needs to be informed of a mistake. Often, most individuals do not want to hear of a situation where they did not perform as expected. However, it is important for the supervisor to know that errors still need to be identified so that every effort can be made to correct them. This process can be made more pleasant by informing the supervisee of their error while also providing them with a rationale for correcting the error. For example, a supervisor should not just state, "Your session notes contain too much jargon, please revise." Instead, the supervisor should provide a justification as to why the error should be corrected. "Your session notes contain a lot of jargon. Your work in sessions should be made accessible so that the parents can understand what was worked on so that they can carryover this progress in the home setting. We want our work to generalize and this will help the parents to understand what happened during each session in an easier way." The rationale should be provided to help point out the reason as to why the error needs to be corrected and may also motivate the supervisee to fix these instances immediately.

In order to ensure that supervisee will find the delivery of performance feedback to be a positive experience, the delivery of performance feedback should be individualized to the preferences of the supervisee. A performance feedback survey should be conducted at the beginning of supervision as well as at regular intervals throughout the supervisory relationship. It is important for the supervisor to deliver feedback that coincides with the preferences of the supervisee. However, the supervisor should make it clear to the supervisee that not all of their preferences will be able to be accommodated. For example, a supervisee may find that any and all feedback is aversive and may want to avoid it at all costs. This will not be able to be honored by the supervisor.

Clear expectations should also be made on how supervisees will receive and respond to feedback that is delivered to them. It has been found that supervisors and supervisees will often have different assumptions as to how feedback should

be received as well as how the supervisee should respond to the feedback that is delivered. Therefore, it may be best that a transparent conversation takes place at the beginning of supervision and to also revisit this conversation during regular intervals within the supervisory relationship. As this conversation is being had, it is important for the supervisor to make clear to the supervisee that performance feedback will contain information surrounding both correct and incorrect behaviors that are demonstrated. The supervisee should also be informed that they should ask for clarification when it is needed. Additionally, a timeline should be discussed that outlines when identified errors will be corrected. For example, if the feedback that is delivered to the supervisee requires them to write a new behavior intervention plan for a client, a deadline should be set as to when this plan will need to be completed.

Lastly, performance feedback is considered to be the most effective when it is able to be combined with other procedures. There are various antecedent interventions that can be used in conjunction with performance feedback. For example, goal setting and prompting can be added into one's supervision. Also, consequence interventions can be utilized such as rewards for when a supervisee is able to meet a specified performance criterion. When using rewards as a part of performance feedback, the supervisee's input should be gathered to determine specific rewards in an effort to ensure that these rewards are preferred and actually rewarding (Wilder et al., 2011). Different surveys can be used to determine the importance of various rewards. However, it is important that the survey is edited so that only the rewards that can be feasibly offered are presented. Next, a sufficient list of both low or no cost rewards should also be outlined. These can include items such as an extended lunch break or a preferred parking spot if available. Lastly, the rewards should only be provided if the desired outcome is achieved.

Other procedures that can be integrated with the use of performance feedback are self-monitoring and self-evaluation. A supervisee can determine specific behaviors that they are able to monitor and can do this while they are practicing alone or being observed. If a supervisee is noted as regularly engaging in self-monitoring, then the supervisor could also observe a session on occasion and collect the same data that the supervisee is self-monitoring. This can be done for the purpose of evaluating interobserver agreement (IOA). The use of self-monitoring can prove to be helpful even if it is done in an informal manner. Supervisors can begin a supervision session by asking a supervisee to list a few items they felt they did well and something they would like to improve upon. Asking questions like these can serve a multitude of purposes. Supervisees are encouraged to continue to self-monitor their behavior as well as to self-evaluate, it sets a positive tone for the identification and praise of behaviors that are correct, and it allows for the supervisee to be able to identify when they need to fix a mistake. In regard to the latter, this will often help to ease the discussion of correcting errors that are made as the supervisee has self-identified the error instead of the supervisor calling it out. This approach can also be helpful for supervisees that experience imposter syndrome, confidence that is low, or those that do not do well with promoting their own strengths.

How Often and When Performance Feedback Should be Delivered

When a supervisor is ready to deliver performance feedback to a supervisee, the supervisor will need to determine when and how often to deliver the feedback. The immediacy of delivery of performance feedback can range from immediately delivering the feedback once the observation has occurred or delivering the feedback after the observation (Codding et al., 2005). Within the field of behavior analysis, the general rule of delivering feedback is that the more immediate it is delivered the better it will be. Research indicates that performance feedback that

is able to be delivered within the same day of the observation is more effective than feedback that is delivered within a week of the completion of the observation (Solomon et al., 2012).

There are several advantages of delivering feedback immediately to a supervisee. Once advantage, and probably the most obvious advantage, is that it prevents the supervisee from continually engaging in observed errors prior to being corrected. Furthermore, if praise is able to be delivered within the context of the performance feedback and acts as a reinforcer, then a delay that exists between the behavior and the delivery of praise will act to weaken the existence of a response-reinforcer relation (Critchfield & Lattal, 1993). However, there are also different situations that consideration should be applied to. For example, feedback that is provided immediately may be disruptive to ongoing client activities. Also, supervisees that view performance feedback as being aversive or anxiety provoking may need additional time to be able to think through their feedback prior to having to return to their ongoing activities. Therefore, it may make providing feedback difficult to administer without any disruption. Despite these situations, performance feedback should still be delivered as soon as possible without losing any momentum of client activities that are ongoing (O'Reilly et al., 1994).

In an effort to minimize any disruption to ongoing client activities, one method for ensuring the delivery of immediate performance feedback is to consider the use of bug-in-ear devices. These devices will allow you to deliver both praise and error correction immediately and without the aforementioned disruptions. When these types of devices are used, it is important to follow up with a set of performance feedback activities. These activities include things like a rationale discussion and role-play scenarios. Written feedback may also be used to deliver both praise and corrective feedback immediately. However, this should also be followed up with a

meeting between the supervisor and supervisee to complete the entire performance feedback process.

It is important to consider not only when performance feedback should be delivered but also how frequently a supervisor should observe a supervisee and deliver performance feedback. Feedback should be provided frequently. If this is done well, supervisees may find this to be a preferred activity. Research has also indicated that performance feedback is viewed as being more effective when it is able to occur more frequently rather than less often (Sleiman et al., 2020). Additionally, research has shown that weekly performance feedback can lead to an increase in fidelity of intervention implementation and is also practical for those delivering the feedback (Mortenson & Witt, 1998).

Performance feedback can be an intimidating experience whether you are a new or experienced supervisor. It may feel awkward at first to deliver feedback to a supervisee. However, if feedback is viewed as being a method for providing guidance, then both the supervisor and supervisee can find performance feedback to be a rewarding experience.

Section 1 Personal Reflection

What is your preferred method of receiving performance feedback while in a work environment? Have you ever been asked to complete a performance feedback survey at the onset of and during supervision sessions? What are the pros and cons to performance feedback that you have previously received, and what changes do you think you would want to implement based on these experiences?

Section 1 Key Words

Fidelity - the extent to which a treatment plan or intervention is implemented exactly as intended, ensuring that all procedures are carried out consistently and accurately, adhering to the prescribed methods and protocols, to maximize the effectiveness of the intervention

Interobserver agreement - measurement of how well multiple observers agree when recording the same behavior

Performance feedback - information that is received regarding a performance that allows for an individual to change their own behavior

Procedural fidelity checklist - a tool that helps ensure that a treatment is implemented as intended

Section 2: Assessments

Assessments are typically utilized by behavior analysts to determine pre-intervention levels of responding. This means that assessments are used to determine the extent to which someone engages in a specified response prior to the onset of an intervention. Behavior analysis is founded on collecting and analyzing data. As a result, a comparison of the data prior to and after an intervention is vital.

Once an individual has been targeted for the introduction of a behavior analytic program, the first thing a behavior analyst should do is to identify the individual's strengths and deficits so that an appropriate and effective course of intervention can be developed. It is important to identify an individual's strengths. This is because building on skills that have already been learned and that the individual is successful in exhibiting can further increase their likelihood of success in the

future. Individuals who are able to successfully complete skills are able to gain access to reinforcement within a learning environment more often than those individuals that are less successful in exhibiting different skills as they access reinforcement less often or may even come in contact with extinction. As a result, behavior analysts must ensure that their intervention is able to be linked to the strengths of the individual receiving services. When discussing deficits, these are skills that an individual is not able to display at the current moment. For example, if an individual is not able to independently open a door, then this would be referred to as a deficit. Assessments are often used with the goal of determining the deficits that an individual may have. This is a primary goal as behavior analysts are determined to identify various skills that should be addressed as part of an intervention plan. If an individual does not demonstrate any deficits, then an intervention plan may not be needed. Behavior analysts should determine a balance when they decide on an assessment to use and how to analyze the results of the assessment so that they are able to delineate both the strengths and deficits of an individual.

Types of Assessments

There are two different types of assessments that behavior analysts can use to ascertain information on the strengths and deficits of an individual. These types of assessments are indirect and direct assessments. Indirect assessments usually consist of interviews and questionnaires. They are viewed as being a method of gathering information about a person's behavior by asking others about it. Often, initial interviews contain questions for the individual receiving services or their caregiver in regard to different areas of improvement. For example, one question may ask the caregiver what they would like to see their family member do that they are not able to currently do. It is also important, though, to ask questions that gather information as it relates to an individual's strengths. For example, the

behavior analyst may ask the caregiver about the family member's favorite thing to do or what they are good at. Initial interviews are good for gathering information and are useful tools for building rapport with the client and/or caregiver. If a behavior analyst were to solely focus on deficits and challenging behaviors during these interviews, this could result in diminished rapport building as well as have a negative impact on the relationship between the caregiver and behavior analyst.

The second type of assessment that is used is a direct assessment. Direct assessments are able to include direct observations that are able to probe for particular skills. Direct assessments are also often commercially available. A direct observation involves observing the individual and recording various behaviors as they relate to the individual's strengths and deficits. Behavior analysts should directly observe an individual engaging in behaviors within their natural environment. Furthermore, a behavior analyst should not assume that the behaviors that an individual engages in while responding to an assessment in an instructional context are representative of how the individual would traditionally exhibit these behaviors or engage in their current skill repertoire. For example, a behavior analyst may probe an individual several times during an assessment and determine that the individual is not able to identify numbers. However, the behavior analyst may then observe the individual as they are able to label numbers while they are playing with a neighbor. This outcome may suggest to the behavior analyst that there is an issue with motivation during the direct assessment instead of a deficit in the individual's skill repertoire. As a result, a direct observation should be used although they are not able to provide specific information about pre-intervention level of responding of the individual.

It is important to determine if specific responses are in an individual's repertoire. This can be determined by probing for skills. Probe trials are different from baseline sessions as there are fewer trials that are conducted. Probe trials will

include at the most two presentations of a particular skill. On the other hand, baseline sessions are likely to contain five to 20 presentations of the specific skill. As a result, probe trials should be noted as a possibility of being the first step in deciding whether or not a goal should be developed, and baseline data collected. Probe trials can either be implemented within the teaching environment or the natural environment as activities continue to occur. Each probe trial will mimic baseline sessions as there will be no prompts or consequences provided. The behavior analyst should discuss the importance of ensuring that there are plenty of opportunities for the individual to come in contact with reinforcement for other behaviors that are demonstrated during these probe trials.

Direct assessments are often found to be commercially available within the field of behavior analysis. Some examples of these direct assessments are: The Assessment of Basic Language and Learning Skills-Revised (ABLLS-R; Partington, 2010), The Assessment of Functional Living Skills (AFLS; Partington & Mueller, 2012), and Essential for Living (EFL; McGreevy & Fry, 2013). There are many more assessments that are available and that may be more relevant to the skills that a behavior analyst wants to evaluate as well as the population with which they work with. Prior to conducting an assessment that is commercially available, additional information should be gathered. It should be noted whether any specific credentials are needed in order to conduct the assessment, the skills that are being assessed, the population that is targeted, and the time that is needed to conduct the assessment. Several of the commercially available assessments include information that details specific guidelines for administering the assessment. These guidelines should be followed as outlined. However, some of this information may not be readily available or included within the assessment guidelines. In this case, the behavior analyst will need to determine if the individual will be allowed access to reinforcement contingent on correct responses to items listed on the assessment, if mastered trials will be mixed in

with other items on the assessment, if the individual will gain access to reinforcement for unrelated behavior (i.e., sitting at a table, listening to directions), how many assessment trials will be conducted consecutively, and the location of the assessment.

Assessment Analysis

After the entirety of the assessment data have been gathered by the behavior analyst, a summary of the results will need to be created. This is typically created in the form of a report. The main focus of a report is that it will be used to delineate an individual's behavioral excesses and deficits so as to provide the foundation for development of an intervention plan. The first step is to gather any information that is relevant about the individual and the behavior that they exhibit. It is vital that graphs as well as other visuals are integrated into the report so that the data that have been collected are able to be displayed. Some of the commercially available assessments have fillable charts that can be color coded as a way of displaying progress from one administration of the assessment to another. When a visual display is utilized within a report, written text should also be used to describe the visual. The written text should be completed using language that is suitable for the intended audience and include a summary of the purpose of the assessment, an orientation to the visual, information as to how to interpret the visual, an analysis of the visual, an explanation of the meaning of the analysis, and the next steps as they relate to the data.

Section 2 Personal Reflection

What types of assessments have you previously used with individuals you provide services to in order to determine pre-intervention levels of responding? In which situations do you prefer to conduct an indirect or direct assessment? Have you

had experience conducting both types of assessments, or do you feel that you could benefit from further training?

Section 2 Key Words

<u>Deficits</u> - skills that an individual is not able to display at the current moment

<u>Direct assessments</u> - include direct observations that are able to probe for particular skills

<u>Direct observation</u> - involves observing the individual and recording various behaviors as they relate to the individual's strengths and deficits

<u>Indirect assessments</u> - a method of gathering information about a person's behavior by asking others about it.

<u>Probe trials</u> - data collection method where a therapist only records the first attempt of a learner performing a target skill, essentially "probing" to see if they can complete the skill without any prompts or assistance

Section 3: Selection and Implementation of an Intervention

Applied behavior analysis is heavily based in science. It is an avenue for making improvements on human behavior that are socially important, based on a century of both basic and applied research (Baer et al., 1968; Skinner, 1953). Therefore, behavior analysts place emphasis and value on interventions that are scientifically supported. This is often referred to as evidence-based practices (Gallagher, 2004). Behavior analysts are required to choose and implement interventions that coincide with behavior principles and are supported by scientific evidence (BACB, 2020).

Intervention Selection

After a behavior analyst has identified the goals of the individual receiving services through a strength and deficit assessment, the behavior analyst will then need to determine the intervention(s) that will help the individual achieve mastery of these goals. First, the behavior analyst should consider all factors that are relevant to the individual such as the individual's age, diagnosis, and specific goals. These factors are considered because research for certain interventions may be limited to specific outcomes, ages of clients, and certain diagnoses (National Autism Center, 2015). Furthermore, the individual's barriers to learning as well as their strengths should be considered. In a situation where a behavior analyst is familiar with the individual, the individual's strengths and barriers to learning may have already been identified previously. However, if the individual is new to the behavior analyst, then the process of gathering this information through interviews will be longer.

If the goal of intervention is to reduce the occurrence of a challenging behavior, then a functional analysis is needed so that the function that is maintaining the challenging behavior can be developed. A functional analysis is conducted so that a function-based intervention can be selected and implemented (Beavers et al., 2013; Iwata et al., 1994). Other assessments may also be helpful. For example, in some assessments, the identification of barriers may show that the individual has weak motor imitation skills. As a result, it may be best for the behavior analyst to develop a program for the individual that improves their motor imitation skills prior to working on the development of other skill deficits. An individual's barriers may help to guide the selection of interventions or certain procedures that are included in the intervention that is selected. For example, if the individual exhibits deficits in paying attention to others, then it may be best for the behavior analyst to not select an intervention that relies on peer-based instruction. Instead, it may be better for the behavior analyst to select an intervention that uses a prompt

hierarchy, where physical prompts can be utilized in place of echoic prompts since the individual has deficits associated with attending to other people.

After the factors that are relevant to the individual have been identified, the next step is to look for interventions that are scientifically supported. Databases or scholarly books can be searched through for relevant articles. Additionally, systematic literature reviews are another resource that can be used for synthesized information. After the literature and other resources have been searched through, several intervention options should be available to the behavior analyst. It is important to note that the selection of an intervention may not be the same for each individual (Leko et al., 2019). This means that one intervention will not be applicable for all potential outcomes. A behavior analyst may have two different individuals that have the same goal in place but will respond to the same intervention differently (McComas et al., 2009).

The third step encompasses the behavior analyst determining which intervention will be the best contextual fit. When determining this, it is best if client and caregiver preferences are considered as these are the most important factors. The individual that is receiving services should be involved in the selection process when it is possible. Additionally, the caregivers should have input on the intervention selection as they are able to provide further information as it relates to family and cultural values, daily routines, who interacts with the individual receiving services as well as other important information. As caregivers are included in the intervention selection, the caregivers will be more likely to implement the intervention that is selected. As a result, this will sustain the intervention's effects and encourage generalization of the outcomes that are produced (Spencer et al., 2012). Additionally, involvement of the caregiver and individual receiving services may also increase the likelihood that an intervention is selected that aligns with their own values and culture (Leko et al., 2019). If the intervention that is selected will be implemented by the caregiver or another

clinician, it is important for the behavior analyst to consider the complexity of the intervention so that it will increase the likelihood that those individuals will implement the selected intervention and with fidelity.

As this process continues, the behavior analyst should conduct a cost-benefit analysis. This will help the behavior analyst determine if the cost of the intervention will justify its benefit (Cooper et al., 2020). The financial cost of the intervention as well as any resources that are required to implement the intervention are part of the cost of an intervention. For example, the behavior analyst should consider the time, money, and any other resources that are needed to develop the intervention. In some circumstances, the cost of these resources may be worth the potential benefit. However, in other situations, the benefits may not justify the cost.

The behavior analyst should also consider conducting a risk-benefit analysis especially if the goal of the intervention is to decrease challenging behavior. As this risk-benefit analysis is being conducted, the behavior analyst should work in a collaborative manner with the individual receiving services and the caregiver to determine any potential risks and benefits that may be associated with the selected intervention. This will allow the individual receiving services and the caregiver to decide if the benefits of the selected treatment will outweigh the potential risks (Bailey & Burch, 2016).

After all of the information has been gathered and various factors have been evaluated, the behavior analyst must choose an intervention. As the behavior analyst is selecting an intervention, they should prioritize interventions that utilize positive reinforcement. The behavior analyst should also select interventions that are restrictive or punishment-based only after an intervention that is less restrictive has failed to produce the outcomes that are desired (BACB, 2020). Even after all of these items have been carefully considered, it may still be possible for

two different interventions to be valid selections and the individual receiving services and caregiver do not have a preference for either one. When this occurs, the behavior analyst may decide to implement both interventions for a period of time for a point of comparison (Vollmer et al., 1993). Furthermore, the behavior analyst may decide to directly address the individual that is receiving services's preference for intervention (Brower-Breitwieser et al., 2008).

Implementation and Evaluation

After an intervention has been chosen, there are two things that need to occur. The behavior analyst will need to create and provide a written description of the behavior change program to the individual receiving services and their stakeholders/caregivers (BACB, 2020). The other thing that will need to occur is that the behavior analyst will need to develop a protocol for the interventions that are to be included within the behavior change program. The behavior analyst should refer to the research for each intervention that is selected to decide on each procedure. Additionally, they should expect to notice that there are a variety of procedural variations for each intervention.

At this point within the selection and implementation process, a functional analysis would have already been conducted if the goal of the intervention is to decrease a challenging behavior. However, if this has not been completed, then the behavior analyst will now need to complete a functional analysis in order to determine the individualized and function based intervention that will be selected. If the person receiving services has a goal related to skill acquisition, then the behavior analyst will need to conduct an assessment-based instruction as a method for determining how to individualize the protocol for the intervention.

After an assessment has been conducted, the behavior analyst will need to choose an intervention and determine the protocol. The protocol that is decided upon

should be utilized frequently so that the fidelity of implementation can be monitored. Behavior analysts should self-monitor their fidelity of implementation and rely on other behavior analysts to evaluate the procedural fidelity. An intervention's effectiveness is correlated with the fidelity in which it is implemented (Holcombe et al., 1994). When a behavior analyst realizes that the intervention is not resulting in the outcomes that are desired, and it is not implemented with fidelity, it is difficult if not impossible for the behavior analyst to determine if the lack of desired outcomes is related to the intervention that was selected or due to the lack of fidelity. If the behavior analyst sees that the fidelity begins to decrease, then the behavior analyst will need to determine the cause. For example, a decrease in fidelity can suggest a lack of training or poor contextual fit.

Additionally, behavior analysts should measure client outcomes. The behavior analyst should work to graph and visually analyze the data on a consistent basis so that the effects of the intervention are able to be continually monitored and changes are able to be made as necessary (BACB, 2020). The behavior analyst has a responsibility to share the ongoing monitoring with the individual receiving services and their caregivers. If the outcomes that are desired do not occur within the specified timeline, the behavior analyst should look to change the intervention as necessary.

It is important for a behavior analyst to understand that the process of selecting and implementing intervention is a complex and ongoing process. The entire process requires practice, professional expertise, and content knowledge surrounding the intervention and processes selected. The behavior analyst may need additional support through other experienced behavior analysts not only during this process but throughout their focus of supervised field experience. Therefore, it is important for a behavior analyst to find this support for the time

after the completion of their field experience as well as through the credentialing of their own supervisees, as it is needed and feasible.

Section 3 Personal Reflection

What are the methods that you have used previously to select an intervention for implementation? How do those methods compare to the methods that are described in the text for intervention selection? What are some processes that you would like to adapt for future intervention selection?

Section 3 Key Words

Cost-benefit analysis - refers to the process of evaluating the advantages (benefits) of a specific behavioral intervention against its potential drawbacks (costs)

Functional analysis - structured assessment method used to identify the underlying function of a specific behavior by systematically manipulating environmental conditions to observe how different factors affect an individual's actions

Risk-benefit analysis - the process of carefully evaluating and weighing the potential risks associated with a specific behavioral intervention against the expected benefits for the client, ensuring that the positive outcomes significantly outweigh any potential negative consequences before implementing a treatment plan

Section 4: Feedback from Supervisees

It is important to invite and encourage feedback from supervisees. Therefore, it is equally important to guide supervisees on how to provide feedback that is

relevant as well as have strategies in place for the behavior analyst to consistently request feedback from supervisees.

When a behavior analyst initially begins to supervise others, they may have never really thought about regularly requesting feedback. However, it is important to note that requesting feedback should be made a high priority. One reason that this endeavor should be completed is because the Ethic Code (BACB, 2020) for behavior analysts states that behavior analysts should continually engage in evaluation of their own supervisory practices, gaining feedback from others. As a result, behavior analysts are instructed as supervisors to consistently review client outcomes and seek out feedback. Not only does this practice assist behavior analysts with providing ethical supervision, seeking out feedback can also aid a behavior analyst in providing supervision that is high quality. If a behavior analyst has been able to create a supervisory relationship that is built on trust and mutual respect, then the feedback that is delivered by a supervisee will more than likely be aimed toward improving the behavior analyst's supervisory practices. Furthermore, seeking out supervisee feedback allows a behavior analyst to minimize or eliminate their participation in supervisory practices that are ineffective.

There are three main risks that are also associated with failure to recruit feedback regarding the supervision practices that are being implemented. These risks include failing to replicate supervisory practices that are effective, providing supervisory practices that are ineffective which can result in harm caused to future clients, and modeling supervisory practices that are ineffective which may continue the cycle of ineffective supervision as supervisees come to imitate these supervisory practices.

Within the first risk that was mentioned, this refers to situations where a supervisee was unable to praise supervisory practices that they found to be

beneficial. As a result, the behavior analyst's behavior was unable to make contact with appropriate contingencies and the shaping of strategies that are effective are unable to occur. The second risk breaks an oath that behavior analysts make to their clients in that they will provide services that are effective and have a goal of making improvements within their lives. Frequent feedback from supervisees will help to safeguard behavior analysts from engaging in ineffective service delivery. Lastly, the third risk demonstrates that modeling supervision strategies that are ineffective will likely result in a supervisee demonstrating these ineffective supervisory practices as well when they become a supervisor. Therefore, in an effort to end this cycle of modeling and imitating strategies that are ineffective, feedback from supervisees should be regularly sought out.

A behavior analyst should also intentionally guide the intended substance of the feedback that is recruited from a supervisee. If a behavior analyst is seeking out feedback regarding their supervisory practices, then the behavior analyst must purposefully direct their supervisee to provide feedback and information that is useful to them. As a result, a behavior analyst should proactively ensure that irrelevant information or information that is unrelated to their supervisory practices is not gathered. The behavior analyst should have a conversation with the supervisee regarding the type of information that will help guide their ability to provide supervision that is effective. Specific questions can be asked that directly target the information that is of concern. For example, instead of a behavior analyst asking a supervisee what they like or do not like, the behavior analyst can ask if explanations are provided to the supervisee along with critical feedback. This type of question allows for specific information to be obtained as it relates to the behavior analyst's supervisory practices. A behavior analyst is often considerate about delivering discriminative stimuli in a way that is likely to evoke a specified response. However, the same behavior analyst may not be as thorough when they are asking questions to evaluate their own supervisory practices. As a

result, it is best if the behavior analyst is able to experiment with a variety of questions to decide which question will be the most effective at obtaining the information that is desired. The behavior analyst may also want to develop a questionnaire that they are able to utilize in these situations (Turner et al., 2016).

There are some strategies that are able to be used to recruit feedback. In the initial supervision meeting between the behavior analyst and supervisee, the behavior analyst can ask the supervisee to let them know the method in which they prefer to provide feedback (Sellers et al., 2016). It is best if multiple sources are able to be provided. The behavior analyst may need to encourage the supervisee to use as many formats as possible as well as ones that they are comfortable in using. Different formats include face-to-face, questionnaires, polls, and rating scales. As the supervisory relationship continues, it is best for the behavior analyst to reassess for the preference of formats in which the supervisee prefers to provide feedback as this may change as time progresses or as the supervisee becomes more comfortable with the supervisor. The behavior analyst should also ask the supervisee about their comfort level in providing feedback that is anonymous or if they would rather the feedback be reviewed by a third party. If anonymity is suggested, then it is best that supervisee feedback is sought out from multiple supervisees at the same intervals. If the supervisee does agree to provide feedback that is face-to-face, then it is best if the behavior analyst discusses the information that they would like to receive as well as questions that may be regularly asked during meetings between the supervisee and supervisor. If a questionnaire, rating scale, or poll are used to obtain feedback, then it is important that the behavior analyst reviews the questions that are being asked and discusses the purpose regarding each question. This discussion is not had as a way of influencing the supervisee's responses. Instead, it is meant to ensure that the responses that are provided by the supervisee are an accurate description of the supervisee's perceptions. Furthermore, a plan that is outlined should be

discussed about the frequency in which feedback will be sought out from the supervisee by the behavior analyst. The time in between each recruitment of feedback should be often enough that it allows the behavior analyst to be impacted but not so frequent that it becomes bothersome.

Section 4 Personal Reflection

Have you previously been asked to provide feedback to a supervisor? If so, which method did you select to provide feedback and did you find it helpful to provide it through use of this method? Would you have preferred to select a different method for delivery feedback, why?

Section 5: Self-management

When behavior change strategies are applied to oneself, this is known as self-management (Kazdin, 2012). Applied behavior analysis has been shown to be helpful in guiding individuals on how to use interventions to impact their own behavior. This vital step guides individuals into developing their independence in a variety of situations. Increasing autonomy can result in an individual building stronger self-esteem and also have a positive impact and better quality of life overall for the individual. The ability of an individual to respond appropriately to triggering situations, use problem solving skills within different contexts, and monitor one's own behavior are at the basis of self-management.

Self-awareness is a main component of self-management. Self-awareness is known as the ability to understand one's own thoughts, feelings and behaviors. People that engage in self-awareness are able to identify their own triggers, accept their own limitations, and recognize areas that they have identified for

personal growth. With this information, individuals are then able to adapt their strategies to address situations as they arise.

Another important aspect of self-management is the ongoing monitoring of thoughts and actions of oneself. By observing one's own actions and emotions as they occur, individuals can identify various coping strategies, a multitude of ways to motivate themselves, and situations that are triggering that they wish to avoid. This process includes ongoing self-reflection and enables individuals to make timely course corrections and foster habits that support their own personal growth and development.

There are two types of behaviors that are involved in self-management. The first behavior involves the controlling response which is the self-managing behavior. These behaviors are intended to have an effect on the outcome that is desired. The second behavior is when the controlled response is the targeted behavior that is being changed.

Self-management involves the controlling of any part of a behavior change procedure. Some examples of this include self-managing antecedents, performing an evaluation on one's own behavior that is exhibited, observing and recording behavior that is exhibited by oneself, and self-managing consequences. Each of these components of treatment occur on a continuum in regard to their level of self-management. When looking at either end of the continuum, one end may demonstrate that self-management is included in a small portion of a behavior change procedure. For example, this may include an opportunity for an individual to record their own behavior; however, a behavior analyst may then manage the antecedents and consequences. As this is compared to the other end of the continuum, the other end may represent a behavior change procedure that is completely self-managed.

The most commonly used approach within self-management is that of managing antecedents. At this particular level, a person may choose to engage in different self-managing behaviors. These may include the manipulation of motivating operations, prompting responses that are desired, performing the steps that occur initially within a behavior chain, increasing one's response effort to engage in behaviors that are not desired, and benefiting from stimulus control.

John would like to lose weight so he can fit into a race suit so he has created himself a self-management plan to increase his healthy eating habits and decrease his food intake that is not healthy. John is attending a family get together on Friday evening and knows that there will be plenty of food to choose from. Prior to attending the family dinner, John eats a small, healthy dinner before he drives over to the family get together. Within this example, John has been able to manipulate his motivating operations. Since John ate a small, healthy dinner before he arrived at the family get together, his full stomach acted as an abolishing operation for more food at the get together, abating any behaviors that had been previously reinforced with eating junk food (i.e., walking to the spread of food and filling a plate with junk food).

Carter is a college student and is becoming overwhelmed with all of his responsibilities between his college coursework, full-time employment, and swim commitments. In addition to all of these responsibilities, Carter has also taken on volunteer hours at the local animal shelter. With all of these responsibilities, Carter has difficulty with remembering to complete his school work, like turning in assignments on time or reading chapters that are assigned. In an effort to improve his completion of coursework, Carter has purchased a new planner. He writes down all of his coursework into the planner to help him reach his goal. Within this example, Carter is employing the use of response prompts. By writing his assignments in the planner, he is able to prompt his own behavior.

Jasmine has just moved into her first condo. After a few months of living there, Jasmine has realized that they would like to improve upon their own housekeeping skills. Jasmine would like to increase the frequency in which they run the dishwasher, vacuum the carpet, and clean the bathroom. Jasmine decided upon a schedule as to when they would like to complete each task. On the evenings that Jasmine wanted to engage in completion of a task, Jasmine was able to engage in a self-management approach on that morning. Prior to leaving for work for the day, Jasmine would set out any items that were needed to complete the task. For example, if Jasmine planned to clean the bathroom that evening, Jasmine would set out the cleaner, toilet brush, and rags in the bathroom. Additionally, on the days that Jasmine would want to run the dishwasher, Jasmine would set out the soap for the dishwasher on the kitchen counter. Jasmine was able to self-manage her housekeeping behavior by engaging in completion of the first step in a behavior chain for each of these tasks. Each response within each of these behavior chains served as a discriminative stimulus for the next step in the housekeeping task. As a result, when Jasmine would come home after work, she was immediately stopped by a discriminative stimulus to engage in the next step within the behavior chain.

In the example with John and meeting the goal of increasing his healthy food intake and decreasing his unhealthy food intake, there is an additional approach that can be used to help him meet his goal. John could increase his response effort to engage in eating unhealthy food by taking out all of the healthy food from his home. If John wanted to consume junk food, he would need to find his way to the nearest store in order to purchase a desired item to consume it. This would be considered an increased response effort as the effort to engage in the behavior that is undesired is likely to decrease John from engaging in unhealthy food intake.

The last antecedent approach discussed for self-management is for one to be able to benefit from stimulus control. This could be handled in two different ways. The first way has the individual limiting their engagement in the behavior that is undesired to specific stimulus conditions. With John's goal of decreasing his unhealthy food consumption, John could limit the behavior that is undesired by only consuming junk food one night per week. For example, John would only be able to consume junk food on Sunday evening at dinner time. Another approach to benefit from stimulus control is to determine a specified environment where the behavior that is desired can take place. In the example with Carter, he desires to increase his completion of school work. Carter may opt to visit the school library two times per week where he can engage in reading and completion of school work assignments. In this example, the library is being paired with school work completion. As a result, the library will now have control over Carter's school work completion, so when he travels to the library, he can complete his school work activities with efficiency and without any distraction from other activities.

In addition to an individual managing antecedent interventions, this person may also self-manage their own behavior by self-monitoring and evaluating the behavior that they engage in. Self-monitoring involves an individual being able to observe and record the behavior that they exhibit (Cooper et al., 2020). This is known as self-recording. The thought behind why self-monitoring is effective is because it has an element of reactivity. It is often paired with self-evaluation. This is when an individual is able to compare their own behavior to that of a standard or goal (Kasper-Ferguson & Moxley, 2002).

Lastly, an individual may also choose to self-manage consequences as they relate to their own behavior. Self-reinforcement and self-punishment are thought to not accurately represent the mechanisms that are employed as they relate to how behavior is changed (Skinner, 1965). As a result, throughout this section, these practices will be referred to as self-managing consequences. Self-managing

consequences often involve the delivery of a reward or aversive consequence after the individual has exhibited the behavior. For example, Susan, who is training for a triathlon, allows herself to get a pedicure after she finishes ten of her planned circuit sessions. Another example is Bob who is trying to decrease his use of slang words. Every time that Bob says a slang word, he puts a quarter in a jar. At the end of the month, Bob gives the jar of money to his son.

Guidelines for Implementation

The guidelines that are used for implementation of self-management are not any different than the guidelines that are used for a behavior change procedure that is implemented by a behavior analyst. Any of the guidelines that are mentioned below can be self-managed or implemented by a behavior analyst.

- The target behavior should be operationally defined

- A goal that is achievable and socially valid should be specified (Heward, 1980).

- A method for collecting data should be specified

- It is important to include self-monitoring and self-evaluation within the self-management plan when able to do so

- The accuracy of self-monitoring should be routinely evaluated.

- The target behaviors should be evaluated to ensure they are within the individual's repertoire.

- The rewards should be selected based on their effectiveness.

- A change agent should be identified that can reinforce self-management behaviors.

- When a behavior change procedure includes the use of both a change agent and self-managed components, it is best to systematically fade the use of the change agent when able to do so.

- The self-management goals and program should be shared with others. By sharing these items, it is likely to elicit consequences that are desired for success as well as aversive consequences that represent failure within self-management. As a result, this will increase the likelihood of success for the individual.

Applications That Are Practical

It is likely that a supervisee will have several opportunities where they will be able to both self-manage their own behavior as well as help clients in determining their own self-management program. Therefore, it is beneficial to further understand the self-monitoring literature. Even though research efforts have been able to show that preschool children are able to successfully self-manage behavior (Reineck et al., 1999), most of the research that has been conducted on this topic has been with elementary, pre-teen, and adolescent individuals (Aljadeff-Abergel et al., 2015). When looking to apply self-management procedures to younger individuals, the lack of research in this area should not diminish one's ability to implement these strategies. However, it may be best to adjust the ratio of self-managed to change-agent-managed components so that there are fewer for younger individuals. Self-management has been able to be utilized to improve academic skills (Shogren et al., 2011), engagement in tasks (Clemons et al., 2016), communication skills (Koegel et al., 2014), social skills (Strain et al., 1994), skills that can be used in play (Reinecke et al., 1999), and skills used within the employment sector (Rouse et al., 2014). In addition to these areas, self-

management procedures have also been used to reduce challenging behaviors, including restrictive and repetitive behaviors (Crutchfield et al., 2015).

It is important to note that both children and adults with intellectual and developmental disabilities have been able to self-manage behavior change procedures as a method for increasing behaviors that are desired and decreasing behaviors that are not desired (Steinbrenner et al., 2020). Furthermore, a significant amount of research has been conducted that has shown the ability of individuals with intellectual and developmental disabilities to self-manage all components of a behavior change plan. These components can include setting goals, managing the antecedents involved in the plan, self-monitoring, self-evaluation, and administration of consequences.

Advantages

There are several advantages that have been noted in the use of self-management. Self-management can be viewed as a pivotal skill. Once an individual is able to develop self-management skills, the individual will then be able to take those skills and use them to impact positive change on the occurrence of other behaviors (Cooper et al., 2020). Once these self-management skills are identified as being in one's repertoire, they can then also be used to promote generalization and maintenance of behaviors within the individual's environment.

The use of self-management may be the best practice for individuals to implement for different reasons. For example, it may be the only procedure that can be used to implement behavior change that is not typically viewed by other individuals. An individual that would like to change or improve upon their grooming behaviors is more than likely going to use a self-managed behavior change program that will take place within their home environment. This behavior change program may

also take place without others being present that would be able to act as a change agent. Additionally, self-management would be needed to change events that are private (i.e., self-talk; Kostewicz et al., 2000).

There may also be additional outcomes that are associated with self-management skills. Self-management can help to build self-accountability and self-awareness within an individual. Self-management also has the benefit of providing immediate awareness and feedback to an individual as it concerns their own behavior. Furthermore, self-management skills can be beneficial for individuals with disabilities. As an individual with a disability demonstrates an increased reliance on self-management, this can then, in turn, have an inverse effect on one's ability to become dependent on or rely on a change agent. As change agents are present with an individual with a disability, this can become stigmatizing, and the decreased reliance can be advantageous. As there continues to be strong evidence to support the effectiveness of self-management as well as the numerous advantages that are associated with it, supervisees should work to develop a skill set that is able to both help to manage their own behavior as well as support the development of self-management procedures for the clients that they provide services to.

Section 5 Personal Reflection

What behaviors of your own have you been able to apply self-management interventions to in an effort to either decrease or increase the exhibition of the behavior? What self-management strategies have you employed with these behaviors? Have these self-management strategies been found to be effective and able to demonstrate the desired results? Are there other self-management strategies that you would like to implement, why?

Section 5 Key Words

<u>Controlled response</u> - the targeted behavior that is being changed

<u>Controlling response</u> - the self-managing behavior

<u>Reactivity</u> - the changes in an individual's behavior due to the presence of an observer

<u>Self-evaluation</u> - when an individual is able to compare their own behavior to that of a standard or goal

<u>Self-management</u> - when behavior change strategies are applied to oneself

<u>Self-managing consequences</u> - often involve the delivery of a reward or aversive consequence after the individual has exhibited the behavior

<u>Self-recording</u> - the act of observing and recording the behavior that one exhibits
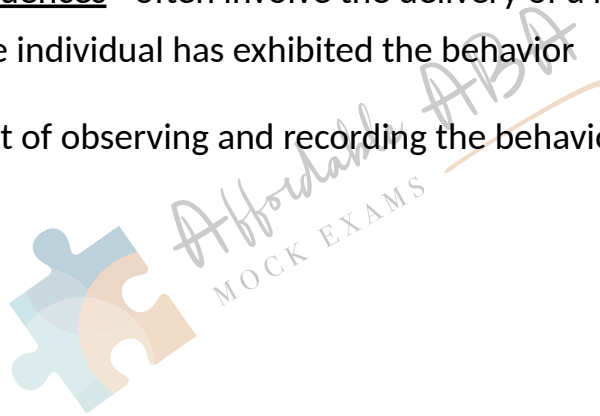
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