Affordable ABA
MOCK EXAMS

Self-Management Strategies within Behavior Analysis

Introduction

Self-management is known as a behavior a person emits in an effort to alter another behavior. This application of behavior change strategies produces a result that is desired by the individual as a way of improving the behavior. While this definition is rather broad and can encompass a multitude of behavior change strategies, it is intentionally left this way to include one-time self-management events as well as complex, long-running and self-directed behavior change interventions where an individual incorporates one more contingencies as a method of changing their behavior. The definition is also functional as the intended behavior change must occur in order for self-management to have occurred.

Self-management strategies can range in their involvement of an individual and the complexity of the techniques that are employed for use within these management procedures. It is a relative concept that can involve the use of a small degree of self-management. On the other hand, an individual can design and implement a multitude of contingencies as a way of changing their behavior. Self-management can occur on a continuum where the individual controls one or multiple components of a behavior change intervention.

If a behavior change intervention is conducted by a person or others on behalf of another person, then the external change agent causes changes to occur. For example, the motivating operations can be manipulated, various discriminative stimuli can be arranged to provide different response prompts, and differential consequences can be delivered dependent on the behavior that is exhibited. Self-management is demonstrated whenever an individual exhibits, or controls, any component of an intervention that changes their behavior.

The definition of self-management is broad and descriptive in nature as the term itself involves multiple principles of behavior analysis. Tactics used within self-management strategies can be described based on a component of a three or four term contingency or by the structural similarity that it provides with other principles of behavior. However, since the definition is typically descriptive, researchers and practitioners should provide caution through a delineated record of the procedures used within their self-management strategies. Furthermore, the various effects of self-management strategies should not be outlined as demonstrating these relations. Instead, further research should be conducted to develop a complete understanding of the mechanisms that contribute to the effects of self-management.

As more and more individuals are being diagnosed with autism spectrum disorder (ASD) and there is an increase in online instruction being used to meet the educational needs of students, it is important that parents, teachers, and practitioners use evidence-based practices that are able to promote independence and growth for individuals. Self-management is an evidence-based practice that includes a set of procedures that can be used to further develop adaptive skills as well as reduce problem behaviors (Erhard et al., 2022). It is a skill that can be used across a multitude of behaviors and improve an individual's autonomy across a wide range of skills and contexts. Additionally, social validity has been documented within the literature that is surrounding self-management (Erhard et al., 2022). Interventions and strategies that use self-management skills are easy to create and integrate into one's life. They are also practical for both parents and teachers to use within their respective environments. Therefore, given the information that supports the efficacy and feasibility of self-management skills, interventions should be promoted that involve the use of these skills for individuals with ASD (Erhard et al., 2022).

Section 1: Overview of Self-Management

Various causes of behavior are able to be determined by observing different events as they occur within the environment. For example, a child begins to cry, and a father picks the child up and begins to console them. The child then stops crying. A dog sees their owner going into the panty, and the dog follows. The dog sits at the doorway, and the owner gives the dog a treat. If a behavior analyst were to view these events as they occur, they would be inclined to state that different antecedent events served as functional variables in the two scenarios and that various reinforcement contingencies were in play during each event. On the other hand, other individuals may provide mentalistic explanations as to the reason why each individual in the scenarios responded in the manner that they did. For example, the crying of the child triggered the father's nurturing instinct to pick up his child and console them.

However, a significant portion of human behavior occurs without such clearly delineated antecedent events. Despite this, we are often inclined to determine the causal status of events that occur immediately before the behavior is exhibited. We often seek out the event that occurred before the behavior and state that the event is what caused the behavior, even if this may not be the case. When causal variables are not able to be easily viewed within the environment, internal causes for why the behavior occurred are often proposed or linked to why the behavior was exhibited. Individuals may contribute

hypothetical constructs such as willpower, desire, or drive as the cause for why a behavior was exhibited. However, these explanatory fictions cause one to engage in circular reasoning and no closer to determining the explanation as to why a behavior was exhibited.

Skinner became known as the first individual to use the philosophy and theory of radical behaviorism as a method for explaining behavior that is exhibited that is controlled by one's self. Skinner believed that when an individual selects an action to complete, thinks about a solution to a problem that they are trying to solve, or attempts to increase their own self-knowledge, then the individual is engaging in the act of behaving (Cooper et al., 2020). The individual is in control of their behavior just as they would be if they were to manipulate the variables that are associated with the exhibition of behavior of someone else. Therefore, Skinner argued that self-control consisted of a two-response phenomenon. The first response is known as the controlling response. This response affects variables in a manner that can change the probability of the other response. The other response, or second response, is known as the controlled response. Within this relationship, the controlling response acts to manipulate any of the variables that the controlled response is a function of (Cooper et al., 2020). This results in a variety of forms of self-control.

Some examples of self-control techniques include physical restraint (i.e., placing one's hand over their mouth in an attempt to minimize a yawn), an antecedent stimulus (i.e., moving the box of cookies to a cabinet so they are out of sight to reduce the likelihood that someone will eat them), and engaging in a different behavior (i.e., discussing a topic that does not coincide with a topic to avoid in an effort to reduce the likelihood that one will discuss a particular topic). There are a multitude of self-control techniques that exist; however, self-control or self-management techniques can be delineated in terms of two behaviors: the behavior that an individual would like to see changed (i.e., controlled response) and the self-management behavior that is exhibited in an effort to change the behavior (i.e., controlling response). See the examples below:

Target Behavior	**Self-Management Behavior**
Save money to purchase a car	Deposit $100 a week into a savings account

Lose 20 pounds of weight	Develop an exercise routine to follow each week and a predetermined time for engaging in exercise plan; make a chart of the days you exercise and show it to your friend
Complete research paper	Divide paper into sections and designate a due date for each section; after completion of each section, indulge in ice cream from local ice cream parlor

Self-management is known as a behavior that an individual exhibits that changes the exhibition of another behavior. However, people exhibit behaviors that influence other behaviors on a daily basis, and these behaviors are not known as self-management. While there are several definitions that exist of self-management or self-control, one definition of self-control exists when an individual exhibits a response that is intended to control another behavior in the absence of immediate external controls (Cooper et al., 2020). For example, a husband shows self-control if, when he is left home alone to do as he wants, he chooses to not watch drag racing on television but instead complete the laundry. However, if the man charts how many times he completes laundry or asks his wife to praise him for completing the laundry, then these situations involve contingencies that include external control for a behavior that the husband wants to change. Therefore, this definition of self-control would exclude situations that contain these contingencies and provides a false distinction between that of internal and external controlling variables (Cooper et al., 2020).

Other definitions of self-control include the exhibition of outcomes that the individual selects themselves through manipulation of both antecedent and consequence-based events (Cooper et al., 2020). This type of definition is more applicable for behavior analysts. Through use of this definition, self-control is exhibited when an individual purposely exhibits a behavior that changes another behavior or the environment. Purposeful, in this sense, means that the individual is able to denote their responses as implemented in an effort to attain a specific result.

Self-management can be viewed as an individual's own application of behavior change strategies that elicits a desired change in a targeted behavior (Cooper et al., 2020). This specific definition is left intentionally broad so that it can encompass one-time self-management occurrences as well as more complex, long-running self-directed

interventions designed to change behavior through one or more contingencies that are integrated within the intervention.

Even though the terms self-control and self-management are often used interchangeably within the literature, it is recommended within the field of behavior analysis that self-management be used when referring to an individual that acts in a manner that changes subsequent behavior (Cooper et al., 2020). This is recommended for a few different reasons. The first reason involves the use of the term self-control as it can be misleading and has implications that one has ultimate control over the behavior that resides within the individual. Skinner believed that control over one's behavior is a result of that individual's interactions within their own environment (Cooper et al., 2020). Therefore, those causal factors regarding one's behavior (i.e., controlling behaviors) are found within the experiences that an individual encounters. Secondly, when the cause of a behavior is noted as being self-control, this serves as explanatory fiction. With this reason, it assumes that there is a self that is inside the individual that controls external behaviors. This view is considered mentalistic and not accepted by behavior analysts. Thirdly, individuals outside of the field of behavior analysis as well as behavior analysts often use the term self-control to imply that someone is delaying their own gratification. This implies that the individual is engaging in impulse control as a way of responding to attain a delayed and larger or higher quality reinforcer instead of a reinforcer that can be attained with more immediacy. Using the term self-control in this manner can be confusing for people and logically faulty (Cooper et al., 2020).

Components of Self-Management

Self-management strategies often include a multitude of components. These components include self-monitoring, goal setting, self-evaluation, self-reinforcement, self-instruction, and also some type of strategy instruction (Erhard et al., 2022).

In an effort to implement self-monitoring, there are several steps that are necessary to include (Erhard et al., 2022). First, the targeted behavior should be identified and then defined in an objective and measurable manner. Next, caregivers should be solicited so they can collect baseline data on the targeted behavior prior to any self-monitoring strategy being implemented. This step is particularly important for goal setting as it allows for the starting point of a targeted behavior to be outlined in order for progress to be measured against this baseline measurement. Thirdly, the method that will be used for self-monitoring should be determined. Then, the individual will need to be trained on how to implement the self-monitoring method that was selected. As the individual

becomes proficient in self-monitoring, the caregiver will then be able to systematically fade themselves from monitoring.

The process of goal setting involves determining the specific metric that is to be used so that there is a point of reference available for one to track their own performance (Erhard et al., 2022). The measurement system that is selected should represent not only accuracy but opportunity for occurrence as well. Goal setting is typically used in coordination with both self-monitoring and self-evaluation. In terms of behavior analytic principles, the act of setting the goal can be outlined as the antecedent stimulus and when an individual obtains praise or a reward for meeting the goal, this is labeled as the reinforcing consequence (Marshall & Rohrer, 2022). After these items have been paired together, the goal then becomes a discriminative stimulus and a conditioned reinforcer. Furthermore, goal setting can be looked at as being rule-governed behavior because a verbal chain influences an individual's future performance (Marshall & Rohrer, 2022). When an individual engages in self-evaluation, they are attempting to evaluate their own performance to the goals that have been specified as well as make decisions that determine whether or not the individual is making progress toward the predetermined criteria or if changes need to be made. This process involves the monitoring of one's own behavior and determining whether or not their behavior was appropriate. These results are then compared to the results of another individual's record of the behavior.

Reinforcement that is self-administered is aimed at increasing a specified behavior. The individual that is engaging in the self-management process is responsible for either delivering or removing a stimulus when it has been determined if a reinforcement contingency has been met through self-monitoring (Erhard et al., 2022). In order for the administration of self-reinforcement to be effective, three conditions are required. The first condition is that a clearly defined targeted behavior is identified. The individual must also be able to control the reinforcers. The individual should be able to directly access the reinforcer or be allowed to ask another individual to deliver the reinforcement for them. Lastly, the reinforcers should only be administered based on a conditional basis. This means that the reinforcer should only be delivered contingent on a predetermined criterion being met.

Prior to an individual engaging in the targeted behavior, self-instruction can occur which may act as a prompt for the individual. If self-instruction is able to result in reinforcement, then the self-instruction itself may act and function as a discriminative stimulus (Erhard et al., 2022). There are four components to self-instruction. These components include the task being defined, a plan on how to complete the task, self-

instructions that will be provided during the task, and providing self-reinforcement when the contingency has been met.

The use of strategy instruction consists of teaching an individual to follow a series of steps that solve problems or accomplish an outcome independently (Erhard et al., 2022). Strategy instruction involves the use of instruction that aligns with cognitive processes (i.e., visualizations) and metacognitive processes (i.e., self-questioning).

Application of Self-Management

There are several ways that self-management strategies can be applied within one's environment. One application of self-management is for it to be used as a method that helps an individual become more effective and efficient in their own day to day activities. For example, a woman might write herself a note of the items she needs to pick up from the store. Also, a child might place their stuffed animal on top of their suitcase prior to leaving on a trip as a reminder to take the stuffed animal with them when they leave on vacation. These are examples of self-management strategies that individuals may use to overcome forgetfulness or to assist in areas of their life that may need more organization. Shopping lists, to do lists, leaving post it notes on a desk, or even creating a checklist are simple self-management techniques that most people engage in on a relatively frequent basis. Although most individuals might not think of these strategies as self-management techniques, it is true that most ordinary and many commonly used self-management techniques are common sense methods that most people employ in their lives. Behavior analysts, on the other hand, can use basic principles of behavior analysis and apply that knowledge to these common sense strategies in a more systematic and consistent manner for use within their own life and that of the individuals they work with.

Another application of self-management strategies can be in the use of breaking bad habits and acquiring good habits in the place of the bad ones. Most of the time, individuals can identify behaviors that they want to engage in more or less often as well as behaviors that we should or should not engage in. Often, engagement in impulsive behavior, bad habits, and procrastination result as an effect of reinforcement traps. These reinforcement traps exist when smaller consequences have a greater effect on one's behavior than a more significant outcome that may be slightly delayed (Cooper et al., 2020). For example, when an individual engages in the behavior of smoking, they immediately get to enjoy the effects that the nicotine has and possibly any social reinforcers that may be associated with the behavior. However, this impulsive behavior

may result in long term effects such as cancer or lung disease. Reinforcement traps involve the use of two-sided contingencies. They encourage the exhibition of behaviors that are considered bad habits while also working against an individual's ability to select a behavior that may be more beneficial to them in the long term. Although an individual may realize that these rules are in effect, these rules still may be difficult for an individual to follow. Weak rules may exist that are delayed, incremental, or that even result in an unpredictable outcome (Cooper et al., 2020). In the smoking scenario, an individual may understand that they should not engage in smoking behavior because they may get cancer at some point later in their life. However, cancer is not guaranteed to happen to this individual. Therefore, this is considered a weak rule as it is not certain to occur and it limits its own effectiveness as a behavioral consequence. Since cancer may not occur for several years, the effects of smoking one cigarette in that moment seem minimal to the individual, and cancer seems unlikely to occur as a consequence for their behavior in that moment.

Self-management strategies can also be used to help an individual accomplish a task that may be difficult. Often, self-management strategies are used to change a behavior that results in cumulative significance for the individual. Unfortunately, an individual's behavior is controlled by an individual's outcome of each response and not the cumulative effect of all of the responses together. For example, in the smoking scenario above, the individual is controlled by the outcome (i.e., effects of nicotine, social reinforcers) of their individual response (i.e., smoking a cigarette). These outcomes are too small even though the cumulative effect of these outcomes may be significant (i.e., cancer, lung disease). When this occurs, an individual has a difficult time being able to manage their own behavior. Self-management techniques can be designed and implemented using one or more contingencies that are contrived to compete with these ineffective naturally occurring contingencies (Cooper et al., 2020). By implementing self-management techniques, short-term outcomes for each response can be delineated. Therefore, these contrived consequences may result in an increased likelihood that targeted responses will occur which may result in the desired cumulative effects in order to complete the task.

Additionally, self-management techniques can be utilized to help an individual achieve personal goals. Individuals may choose to learn to play a sport, take up a musical instrument, learn to ride a bicycle, commit to exercising, enjoy a relaxation period, or even engage with their family pet. For example, a young theater student may want to audition for a role in an upcoming play. This student could use self-management

strategies to increase the time that they rehearse their lines for the audition. Each time the student fails to practice their lines, they could pay $1 to a friend as a fine.

Section 1 Personal Reflection

Have you or someone you know used self-management strategies or techniques to improve performance on a task or enhance your life in some aspect? What types of self-management strategies did you or this person employ and were they helpful?

Section 1 Key Words

Controlled response - Within this relationship, the controlling response acts to manipulate any of the variables that the controlled response is a function; the behavior that an individual would like to see changed

Controlling response - response that affects variables in a manner that can change the probability of the other response; the self-management behavior that is exhibited in an effort to change the behavior

Explanatory fiction - attempt to explain behavior by reclassifying behavior through naming mechanisms

Goal setting - determining the specific metric that is to be used so that there is a point of reference available for one to track their own performance

Radical behaviorism - a method for explaining behavior that is exhibited that is controlled by one's self

Reinforcement trap - powerful contingencies of reinforcement with four defining features: clients are "baited" with virtually irresistible reinforcers, only a low effort response already in the clients repertoire is needed to enter the trap, interrelated contingencies of reinforcement inside the trap motivate the student to acquire, extend, and maintain targeted skills, traps can remain effective for a long period of time

Self-control - an individual exhibits a response that is intended to control another behavior in the absence of immediate external controls

Self-management - a behavior that an individual exhibits that changes the exhibition of another behavior

Strategy instruction - consists of teaching an individual to follow a series of steps that solve problems or accomplish an outcome independently

Weak rule - a rule that exists that may be delayed, incremental, or that can even result in an unpredictable outcome

Section 2: Advantages of Self-Management Strategies

There are several advantages to an individual implementing self-management strategies in their own life. One advantage is that self-management can be used to influence different behaviors that are not able to be observed by others. In other words, these behaviors are not accessible to external agents that can cause change. Private events such as feelings of doubt, obsessive methods of thinking, or even feelings of depression experienced by an individual may be best approached through a self-management treatment protocol. Some behaviors, though, may be observable by others but are exhibited in certain settings or situations that are inaccessible to an external change agent. These types of behaviors may require prompting, a monitoring system, evaluation, or reinforcement at a high rate. Often, self-management strategies may require the individual to implement these techniques while they are not in the treatment setting. Therefore, some behaviors that are identified for change may be practiced in one setting, but the contingency that is outlined for implementation may be delivered in a different location that requires the use of self-management strategies.

Another advantage of self-management strategies is that those external agents of change can sometimes miss occurrences of behavior that are important. When an individual is located within a large group of people, in a classroom, or in a community setting with other people, it may be difficult to observe every instance of a behavior. Some occurrences of a behavior may go unnoticed or an opportunity to respond may be missed. In a classroom setting, a teacher may be busy with other students when one student exhibits a behavior that was targeted for intervention. This may result in a missed opportunity for the teacher to respond to the exhibited behavior or to provide feedback. Feedback can be comprised of rewards, praise, or even error correction strategies. However, if an individual were to implement self-management strategies, they would be able to evaluate their own behavior and determine when to provide feedback based on the predetermined criteria. Self-delivered rewards, obtaining praise from another individual, and asking for assistance when needed are contingencies that are not dependent on another individual to implement.

A third advantage for the use of self-management strategies is that these strategies can encourage generalization and maintenance of a desired change in behavior. Generalization occurs when a desired change in behavior occurs in situations and settings other than the original setting in which the behavior was learned, continues to occur after the designated treatment has come to a conclusion, and is able to spread to other behavior that are similar or related. If a change in behavior does not have generality, then it must be supported by continued treatment forever in order for the change in behavior to continue to occur. When an individual is no longer present in the environment in which the change in behavior was acquired, the individual may or may not continue to emit the targeted behavior. Certain characteristics or aspects that were contained within the learning environment may have acquired properties that allowed them to become discriminative stimuli for the targeted behavior. These characteristics or aspects could include people within the environment or even different stimuli within the setting. This enables the individual to discriminate whether or not specific contingencies are in place across the different environments. The capacity for generalization to occur may also be diminished when the naturally existing contingencies in these environments do not provide reinforcement for the targeted behavior. Therefore, self-management strategies may be able to overcome some of these barriers to generality. By integrating self-management strategies into one's life, these strategies are able to go with an individual from one environment to the next and can always prompt and reinforce the desired responses associated with a targeted behavior.

Additionally, when an individual learns several self-management strategies, they are then able to possibly control a wide variety of behaviors and responses. For example, an individual may learn to self-monitor their own responses. Self-monitoring is the act of observing and recording the behavior of oneself. This process has been used to increase academic performance, on-task behavior, physical activity, and accuracy of responses to name a few (Cooper et al., 2020). On the other hand, this process has also been known to decrease instances of stereotypy, cigarette smoking, and overeating behaviors (Cooper et al., 2020). The behaviors that self-management strategies can influence range in difficulty, intensity, and amount of time required.

Furthermore, self-management strategies are not limited to individuals with knowledge or expertise in behavior analysis. Instead, self-management strategies are able to be used by people with diverse abilities. Individuals with varying ages and cognitive abilities have been able to integrate self-management strategies into their everyday lives in a successful manner. Preschoolers and college students alike are able to improve aspects of their lives and improve their performance by employing these techniques.

Individuals with learning disabilities, children with emotional and behavioral disorders, and those diagnosed with ASD are able to use different self-management tactics to learn new behaviors or to even decrease undesired responses.

Some individuals are able to perform better if their responses and consequences are able to be selected by them rather than be determined by someone else. Students may be able to increase a desired response more so by selecting their own contingencies for performance rather than having consequences selected by their teacher. However, it is important to note that simply by letting someone determine their own contingency does not automatically imply that the individual will engage in high levels of performance. Some individuals may select criteria that are too lenient if they are provided the opportunity to do so. Therefore, it is important to oversee the contingency selection phase or to help an individual with understanding how to self-select and maintain certain levels of performance.

Individuals that have good self-management skills are able to contribute more to an environment that is effective and efficient. By not having to rely on others for completion of every task, the overall performance of the entire group can improve (Cooper et al., 2020). When a single individual is responsible for overseeing, monitoring, and providing feedback to everyone within a work environment, the overall effectiveness and efficiency of the group can be limited. Therefore, the use of self-management strategies by individuals within the work environment or the group can improve the performance of the group as a whole. For example, when looking at a typical classroom, a teacher is usually responsible for grading the work of each individual student, providing feedback to students individually when they need help on a problem, and managing the social behavior and expectations of each student within the learning environment. The time that a teacher spends on these events as well as countless other tasks is insurmountable. By teaching students to grade their own work, seek out their own feedback through use of answer keys, use self-checking materials to aid in instruction, and to behave as the rules are delineated for them within the learning environment this would then, in turn, allow the teacher to attend to other components of the curriculum and conduct other instructional tasks that are available for completion.

Additionally, teaching individuals to use self-management strategies can provide meaningful practice within other curriculum areas that they are exposed to. If an individual is able to learn to define and measure their own behavior as well as graph, analyze, and evaluate the responses that they provide, they are able to rehearse valuable math and analytical skills that are relevant in a variety of ways. Furthermore, as

individuals learn to use various research designs to evaluate their own self-management strategies and interventions used for their own behavioral responses, they are then able to practice logical thinking and scientific methodology. All of these skills can be valuable experiences and learning endeavors that can further enhance the learning process for an individual.

Ultimately, an overarching goal of one's educational endeavors is that of becoming an independent, self-directed person that is able to behave and act appropriately without having to be in the supervision of someone else (Cooper et al., 2020). Foundationally, educators strive to have students that are able to be self-directed and able to evaluate their own performance, only needing the teacher to act in the role of a facilitator or a guide to the student's educational needs. However, most educational experiences lack the teaching of self-management as part of the curriculum which requires a student to embark on learning an advanced sequence of skills.

Self-management can have a significant impact on society. Individuals that are able to utilize self-management are potentially more likely to have a greater impact, enhanced contributions, and fulfill their potential as it aligns with society. Self-management strategies also guide individuals into behaving a certain way by foregoing immediate reinforcers that may be associated with non-preferred outcomes. For example, an individual may choose to take public transportation as they understand the outcome that this behavior may have on future generations and the environment. By implementing self-management techniques in this manner, individuals will be able to save valuable resources, recycle, use less fossil fuel and work toward keeping the environment a well-maintained world for all involved.

Furthermore, individuals that are able to implement self-management strategies in their life are able to feel more free and are more likely to be happy. Some individuals are stuck in a reinforcement trap that may glaringly show the contingency that exists between their behavior that is addictive, impulsive, or exudes procrastination and that of the consequence that will eventually occur. This may result in the individual experiencing feelings of unhappiness or not feeling free. However, when an individual is able to overcome behaviors of impulsiveness, procrastination, or addictiveness, they often feel like they have escaped chains that were holding them down or back and are no longer experiencing feelings of coercion. Therefore, self-management strategies are able to provide individuals with a way to overcome these behaviors and to exhibit behaviors that allow them to feel control over their own life.

Lastly, self-management strategies allow an individual to feel good about being in control of their own life. As an individual is able to navigate and plan consequences within their environment that are purposeful and based on the exhibition of behaviors that are of value to them, this individual will not only be more productive within their environment but will also feel good about themselves and the behaviors they exhibit.

While the number of advantages that exist that tie to the implementation of self-management strategies into one's own life are endless, it is important to realize that the effects of these strategies are beneficial to not only an individual but the community, environment, and society in which one resides.

Section 2 Personal Reflection

Which advantage of self-management strategies do you identify as having occurred in your own life through use of these tactics? Are there other advantages of self-management strategies that were not mentioned previously that you can identify as occurring in either your own or your client's life?

Section 2 Key Words

Generalization - occurs when a desired change in behavior occurs in situations and settings other than the original setting in which the behavior was learned, continues to occur after the designated treatment has come to a conclusion, and is able to spread to other behavior that are similar or related

Private events - behaviors that are not accessible to external agents that can cause change

Self-monitoring - the act of observing and recording the behavior of oneself

Section 3: Self-Management Strategies

There are several self-management strategies that exist that have been developed within the field of behavior analysis. Typically, these strategies are based on either the antecedents or consequences surrounding the behavior that is targeted for change (Cooper et al., 2020). Self-management strategies that are antecedent-based require the manipulation of stimuli or events that occur prior to the behavior (i.e., controlled response). This process is often referred to as environmental planning or situational

inducement (Cooper et al., 2020). Some of the antecedent-based self-management strategies that exist include the use of the following strategies:

- Manipulating the motivating operations that exist so that a behavior is either more or less likely to occur
- Using response prompts
- Completing the beginning steps of a behavior chain as a way of making sure that a discriminative stimulus will later evoke the occurrence of the behavior
- Taking away any items that are associated or needed for emitting the targeted behavior
- Ensuring the targeted behavior is limited to restricted stimulus conditions
- Creating a specific environment that allows for the targeted behavior to occur in only that environment

Manipulation of Motivating Operations

Motivating operations (MO) have the power to alter the effectiveness of a stimulus, object, or event that serves as a reinforcer as well as alter the rate of any behavior that has been previously reinforced by that particular stimulus, object, or event. A MO has the ability to increase the effectiveness of a reinforcer and can also have an evocative effect on targeted behaviors that have produced that reinforcer (Cooper et al., 2020). These MOs are known as establishing operations (EO). Additionally, a MO that has the ability to decrease the effectiveness of a reinforcer and also has an abative effect on targeted behaviors that have produced these reinforcers is known as an abolishing operation (AO) (Cooper et al., 2020).

A MO can be added into a self-management strategy by creating a state of motivation that either allows for an increase or a decrease in the targeted behavior. For example, a friend may invite you over to a party at their home that will be catered by your favorite restaurant. In an effort to make the most of the experience and to fully enjoy the food that will be provided for you, you skip the meal that you would have normally eaten prior to the party. This allows you to create an EO that increases the likelihood that you will be able to eat the meal provided for you. On the other hand, it might be ideal if you ate a meal prior to going to the grocery store to complete your grocery shopping for the week. By doing this, this behavior decreases the likelihood that you would purchase

ready-to-eat foods and instead purchase fewer of these items that act as reinforcers. The behavior of eating a meal prior to grocery shopping would act as an AO in this example.

Using Response Prompts

A way that a self-management strategy can be easily employed is through the use of stimuli that can later act as a cue or signal for a desired behavior. These cues or signals are known as response prompts and can come in a variety of forms. For example, some response prompts can be visual, auditory, textual, or even symbolic. They can also be permanent prompts for events that occur on a consistent basis. These response prompts may, in turn, evoke different controlling responses.

An object can be used over and over again as a generic response prompt that serves as a cue for a variety of behaviors. For example, some individuals will wear a tied ribbon around their wrist to remind them to complete a certain task at a later time. These response prompts can be beneficial for an individual as long as the individual is able to recall the task they are to complete at a later time. If the individual forgets the task, then this kind of response prompt will be ineffective. At times, a self-instruction that is provided as the individual puts on the physical prompt may aid in the individual being able to recall the task at a later time.

Other self-arranged cues can be utilized to prompt an individual to complete a task or a behavior several times in various environments. For example, if a child wants to remember to put away his items, he may place a sticker in different places where he frequently leaves his belongings. These supplemental response prompts act to see the environment in which the behavior is to occur. Each time the child sees his sticker, this could prompt the child to look in the immediate environment, locate any items that belong to him, and retrieve the items from the environment in order to put them away.

Additionally, various digital devices (i.e., smartphones, tablets, watches) can be used to provide self-delivered audio and visual response prompts where the desired response should occur. As technology continues to advance, individuals diagnosed with disabilities and ASD are using digital devices to act as a response prompt for completing various daily living skills and tasks within their work environment.

Implementing the Beginning Steps of a Behavior Chain

Self-management tactics that contain the manipulation of antecedent events can be used when completing the beginning steps of a behavior chain. Through this method, this process ensures that the targeted behavior will come in contact with a discriminative stimulus that will likely evoke the behavior. Even though operant behavior occurs and is maintained by the consequences that occur, behaviors that are occurring from instance to instance are likely to be exhibited as a result of the presence or absence of discriminative stimuli.

Several tasks that occur within one's life contain response chains. Within a response chain, each response that occurs in turn results in a consequence that is exhibited within an environment. This consequence or change in the environment acts as a conditioned reinforcer for the response that occurred prior and as the discriminative stimulus for the response that is to occur next within the behavior chain. In order for the behavior chain to be completed successfully, each response within the chain is to be evoked by the discriminative stimulus that coincides. When an individual completes part of the behavior chain (i.e., self-management response), this ensures that the environment will be changed, and the individual will later come in contact with the discriminative stimulus that will prompt the completion of the task (i.e., self-managed response).

For example, your child may need to take their school project with them to school so they can submit their work for a grade. Prior to leaving for school, your child thinks that they should remember to grab their project off of the kitchen counter. However, they still need to complete a few things prior to actually being ready to leave the house. In this situation, the child should complete the first steps of the behavior chain of taking their project to school. The child could grab the project off the counter and place the project by the door they use to exit when leaving for school. This would start the process of taking the project to school and aid in helping the child complete this task.

Removing Items that are Needed for a Behavior to Occur

An additional antecedent-based self-management strategy that can be implemented is changing the environment in a way that makes it impossible for an individual to complete a specific behavior. For example, an individual that is attempting to lose weight could begin the weight loss process by eliminating all of the cookies and chips from their pantry within their home. Through this process, the individual is no longer able to access certain items that are needed in order to engage in a specific behavior.

However, it is important to note that other self-management strategies may need to also be implemented in order for the individual to refrain from searching or gaining access to these items in another manner.

Ensuring the Targeted Behavior is Limited to Restricted Stimulus Conditions

An individual may be able to alter the exhibition of their behavior by not coming in contact or limiting one's access to the environment or the conditions in which the behavior is exhibited. If the restricted stimulus conditions exert stimulus control over the behavior and access to the environment or conditions in which the behavior is exhibited is limited, infrequent, or not reinforcing then the behavior will be less likely to occur. For example, a young woman could engage in biting her lip often and on a habitual basis. The young woman is aware that this behavior occurs and wants to work on reducing the behavior. As a method of decreasing the exhibition of lip biting, the young woman decides that she will stop engaging in the behavior each time she becomes aware that she is exhibiting the behavior and at any time that the young lady wants to engage in lip biting behavior, she will be able to go to her room within her home and exhibit the behavior for as long and as frequent as she wants.

Locate and Designate a Specified Environment for a Behavior

An individual may be able to exert and obtain a certain degree of stimulus control over a specific behavior by creating a designated environment where the individual will only be allowed to engage in the specified behavior while in this location. Having an environment that is free from distractions can aid in increasing productivity levels. For example, when a student has a designated area (i.e., library) to engage in study habits, or a professor at a college designates a space to work on their scholarly contributions, behaviors such as daydreaming or off-task behaviors are less likely to occur.

If an individual does not have the ability to designate a specific location to a single activity, then the individual may be able to contrive a specific stimulus that is able to be turned on or off in a multipurpose environment. For example, a professor that works remotely may only have a counter space to use when engaging in scholarly activities. This counter space may also be used for children eating, children completing homework, or meal preparation. Therefore, when the professor wants to engage in scholarly activities, the professor clears the counter space completely, brings their laptop and

books to the area, and brings a chair so they are able to sit at the counter space and engage in their scholarly work. Additionally, a student may have a laptop that they use for work, studying, browsing the Internet, and playing games. Similarly, to the aforementioned example, the student may change their background feature so that the background is used to signal when they are to complete their academic work versus when they have free use of their computer. When the student sits down to complete their academic work, the background on their computer could be changed to a green background. However, when they have completed their academic work and are able to use the computer for free time, they can change the background to a picture of their favorite vacation spot. As time progresses, the background that is designated for academic work may come to acquire a certain degree of stimulus control over the behavior of engaging in academic work.

This self-management strategy can also be used to increase a behavior that is not being exhibited at a desired rate because there is a competing undesired behavior that is also occurring. For example, individuals that have difficulty sleeping may use this tactic in an effort to increase their sleep behavior. If an individual typically goes to bed but stays in their bed for several hours, unable to sleep, and thinking of tasks they have to complete or problems that are occurring in their life, then instead of continuing to lay in bed when they are unable to sleep the individual can get out of bed. The individual can then only go to bed if they feel really tired but are instructed to get out of bed at any point when they begin to think about problems or are unable to fall asleep.

Section 3 Personal Reflection

Which self-management strategy have you previously used and which behavior did you target while using this strategy? Are there other self-management strategies that you can employ to improve your life?

Section 3 Key Words

Abolishing operation (AO) - a motivating operation that has the ability to decrease the effectiveness of a reinforcer and also has an abative effect on targeted behaviors that have produced these reinforcers

Antecedent-based strategy - requires the manipulation of stimuli or events that occur prior to the behavior

Establishing operation (EO) - A motivating operation that has an evocative effect on targeted behaviors that have produced that reinforcer

Motivating operations (MO) - have the power to alter the effectiveness of a stimulus, object, or event that serves as a reinforcer as well as alter the rate of any behavior that has been previously reinforced by that particular stimulus, object, or event

Response chain - each response that occurs in turn results in a consequence that is exhibited within an environment

Response prompt - the use of stimuli that can later act as a cue or signal for a desired behavior

Section 4: Overview of Self-monitoring

Self-monitoring, also known as self-recording or self-observation, involves an individual systematically observing their own behavior and recording either the occurrence or nonoccurrence of the specified behavior. The idea of self-monitoring originally stemmed from collecting data on exhibited behaviors that only clients were able to observe and record (Cooper et al., 2020). However, self-monitoring became an intervention on its own due to the reactivity effects that coincide with the collection of data for specified behaviors. Reactivity effects refer to those effects on an individual's behavior that occur as a result of an assessment or measurement procedure. If the procedure is more obtrusive, then the reactivity effects that are produced are likely to be greater. The maximum level of obtrusiveness that can be reached is when the person that is recording the behavior is also the subject of the change in a behavior that is desired. From a clinical perspective, reactivity is welcomed even though it represents uncontrolled variability in a research study (Cooper et al., 2020). Self-monitoring can aid in changing a behavior in a desired direction, either therapeutically or educationally.

Self-monitoring has been used to decrease or increase a variety of behaviors. Some of these behaviors include decreasing smoking behavior, increasing physical activity, and decreasing disruptive behaviors. Students in educational settings have used self-monitoring to ensure they are on-task when they are in their classroom setting. Other students have improved their reading comprehension, performance in different academic activities, and completing assignments. Teachers within the classroom setting have also used self-monitoring to increase the amount of praise they provide students during instruction time.

Self-monitoring is oftentimes combined with other strategies such as setting goals and self-evaluation. Self-evaluation, or self-assessment, allows for an individual to compare their own performance with that of a predetermined goal or standard. Data collection and graphing that are done by the individual regarding their own performance can assist with the self-evaluation process.

When designing an intervention package, self-monitoring typically coincides with feedback and reinforcement dependent on meeting self- or instructor-selected goals. The reinforcement for achieving the desired behavior can be delivered by the individual themselves or the instructor. When evaluating self-monitoring from a behavior analytic perspective, the behavioral mechanisms that are responsible for the effectiveness of self-monitoring are not completely understood (Cooper et al., 2020). Some theorists believe that self-monitoring is effective in changing specified behaviors because it can encourage statements that are self-evaluative in nature that act to either reinforce targeted behaviors or punish behaviors that are unwanted. Otherwise known as guilt control, self-monitoring improves performance because the behavior that is less than desirable is responsible for producing covert guilt statements. These statements can then, in turn, change an individual's behavior by having them avoid the undesirable behavior by improving their own performance. Furthermore, the targeted behavior is then strengthened through the use of negative reinforcement by escaping and avoiding the feelings of guilt that are associated with doing something wrong or bad (Cooper et al., 2020).

Additionally, the principles of behavior that are producing a change in behavior as a result of self-monitoring are unknown because the procedure of self-monitoring consists of private, covert behaviors. Accessing these private events in an observable and objective manner can prove to be difficult. Furthermore, self-monitoring can be confounded by other things as well. Reinforcement, punishment, or both are usually a part of an intervention package along with self-monitoring. It can be difficult to separate each component to determine the principles that are responsible for the effects of self-monitoring. However, despite the unknowns that are involved with self-monitoring, it is still an effective procedure for inflicting change on an individual's behavior.

Guidelines and Procedures Involved in Self-monitoring

Self-monitoring techniques can prove beneficial to individuals that are desiring to change a behavior that they exhibit. With that being said, there are some guidelines

that should be considered when practitioners implement self-monitoring procedures with the clients they provide services for.

Materials Should be Provided to Ensure Ease of Implementation

With most things that individuals encounter, if a task is too troublesome, difficult, or time-consuming, the individual will disregard the task at hand and have negative effects for the behavior that is being targeted for intervention. Furthermore, the intervention itself may be ineffective and not liked by the individual. Therefore, it is necessary that for a self-monitoring strategy to be effective on a targeted behavior, the individual should be provided with the materials that are needed to make the process as easy, simple, and efficient as it possibly can be. Measuring behavior can be made simple. There are various low-tech devices and strategies that can be used. For example, an individual could use paper and pencil to measure a behavior as well as a counter, timer, or stopwatch. For example, if an individual wanted to provide a compliment to another person at least five times a day, they could put five small pebbles in their pocket at the start of their day. Then, every time the individual provided someone with a compliment, they could remove one of the small pebbles from their pocket.

Forms for data collection should also be kept simple for the individual that is engaging in self-monitoring of a targeted behavior. Forms that are typically the most effective usually have no more than a series of boxes where the individual can place an X, a minus, indicate either yes or no, or place a sad or happy face. This is indicative of momentary time sampling. The individual could also delineate the number of responses that were made during a specific interval. All of these methods are usually relatively simple for an individual to complete.

Additionally, forms to record the self-monitoring of different tasks or a chain of behavior can also be created for an individual. An individual could place a plus or minus next to each step that is indicated on a checklist of steps that are required to be completed for a specified task. Other self-monitoring forms that denote the contingency with several cartoon-like frames are known as countoons. These types of forms are particularly helpful with children because they remind children of the consequences that will occur if they are able to meet the specified criteria as well as the behavior that they are to self-record.

Furthermore, forms used for self-monitoring targeted behaviors can be created that allow an individual to self-record several tasks across several different days. Students that need to track completion of homework, points earned on assignments, and other

school-related measures may find it beneficial to use the Classroom Performance Record (CPR). This form can also be used to indicate to students their status in their current classes, their grade at the end of the term, and various ideas for improving their performance in their classes (Cooper et al., 2020).

Additional Prompts or Cues Should be Provided

Some of the self-recording devices that have previously been mentioned (i.e., stopwatch, paper and pencil) can serve as constant reminders to an individual to self-monitor their own behavior that is targeted for intervention. However, there are also other additional prompts or cues that an individual can use that aid as a prompt to engage in self-monitoring. For example, an individual could use auditory, visual, or tactile stimuli as prompts.

Auditory prompts can be used via a prerecorded signal or different sounds and tones. Classrooms in an educational setting have often used these types of cues for self-monitoring. Students have been asked to record if they are exhibiting on-task behavior each time a prerecording beep was played in their classroom. Other classroom settings have asked students to record their affect at predetermined times when a specific tone was played. These auditory prompts can be an easy and unobtrusive way for individuals to know when to self-record the exhibition of a targeted behavior.

Visual cues and prompts can also be unobtrusive and help to indicate to an individual the need to self-record. For example, individuals can program their tablets to signal, through visual display of words, at designated times which can serve as a reminder for an individual to self-record.

Tactile prompts are an additional method that can be used to engage in self-monitoring. For example, the MotivAider is a small device that can fit into someone's pants pocket that will vibrate at a designated time as set by the individual. When the device vibrates, this can indicate to an individual that it is time to engage in self-monitoring of the targeted behavior.

A general guideline when using additional prompts or cues is that these items should be as unobtrusive for the individual as possible. It is not ideal to disrupt the individual. Additionally, frequent prompts should be provided at the beginning of an intervention for self-monitoring and then work to reduce the number of prompts and cues provided as the individual is able to become more knowledgeable and skilled with the self-monitoring intervention (Cooper et al., 2020).

The Most Important Aspect of the Behavior Should be Self-Monitored

When deciding what behavior should be measured within a self-monitoring intervention, an individual should select to self-monitor the aspect of the behavior that will result in the most significant impact toward an individual's self-management goal. For example, if an individual were to want to quit smoking, they could record the number of puffs they take of each cigarette, how much time elapses from the first puff of a cigarette until the last puff of a cigarette, or how long they pause in between each puff of a cigarette. Even though each of these measures could provide information regarding the individual's cigarette smoking behavior, none of these aforementioned dimensions would be as related to the individual's overall goal of quitting smoking as recording the total number of cigarettes smoked each day. Therefore, it is beneficial to select to self-monitor the most important dimension of the targeted behavior in order to yield direct and significant progress toward one's self-management goal.

Self-monitoring Should Occur Often and Early

When engaging in self-monitoring strategies, one should self-record each instance of the targeted behavior as early as one possibly can. Although this self-recording process should occur early, the process itself should not disrupt the behavior from occurring. Some self-recording measures can be completed after the behavior and any naturally or contrived occurring responses are produced. An individual can measure the behavior after the session through permanent product recording. For example, a student may work to complete a math worksheet. The student is attempting to increase the number of correct answers on each worksheet. Therefore, the student could self-record how many problems they answered correctly after they completed the entire worksheet.

Some components of a behavior may be able to be measured before the behavior has been exhibited. If an individual is able to self-record a response that occurs early within a behavior chain that may lead to an undesired behavior, this process may be more effective in changing the targeted behavior rather than recording the behavior at the end of the chain of responses. For example, an individual that is engaging in losing weight may have more success at changing their eating habits if they self-record at the beginning of the chain of responses that lead to overeating. Additionally, an individual should self-monitor more often at the beginning of a behavior change intervention. As the performance of the individual improves, self-monitoring can decrease and occur less frequently.

Self-monitoring that is Accurate Should be Reinforced

It is important to know that some research has shown that accurate self-monitoring is not correlated with the effectiveness of changing the behavior of an individual. It may not be a necessary component for behavior change. Despite this information, accurate self-monitoring is wanted, especially as those that are engaging in self-monitoring strategies are using the information gathered to self-evaluate and self-administer any consequences for the exhibition of their behavior. Young children may also have difficulty with accurately self-recording the exhibition of their own behavior. They may tend to either under or over exaggerate the results depending on the consequences that are outlined for their behavior. Some young children may exaggerate their scores in order to access a reinforcer that is associated with a higher score achieved. Therefore, it is important to reinforce accurate self-monitoring. This can be done by having an independent observer also record data at the same time the individual is engaging in self-recording so that the individual's self-recording scores can be spot checked. This method has led to an increase in the accuracy of self-monitoring by children that are younger (Cooper et al., 2020). Children with behavior disorders have also benefited from these methods as a way to increase accurate self-evaluations (Cooper et al., 2020).

Section 4 Personal Reflection

What are some methods that you have personally used to self-record a specified behavior? Which methods have you witnessed or used with a client to have them self-record their behavior? Is there are self-monitoring strategy that has proven to be easier to use? Why?

Section 4 Key Words

Countoons - self-monitoring forms that denote the contingency with several cartoon-like frames

Guilt control - behavior that is less than desirable that is responsible for producing covert guilt statements; these statements can then, in turn, change an individual's behavior by having them avoid the undesirable behavior by improving their own performance

Reactivity effects - effects on an individual's behavior that occur as a result of an assessment or measurement procedure

Self-evaluation - allows for an individual to compare their own performance with that of a predetermined goal or standard.

Self-monitoring - involves an individual systematically observing their own behavior and recording either the occurrence or nonoccurrence of the specified behavior

Section 5: Consequences that are Self-administered

The success of self-management relies heavily on the arrangement of consequences to follow either the occurrence or nonoccurrence of a specified behavior. There are several strategies that can be used to either self-punish or self-reinforce the exhibition of a behavior.

Self-reinforcement Strategies that Increase Behavior

It is important to understand that consequences can be delivered either directly or indirectly. When a consequence is delivered directly, the individual is able to access the consequence on their own. On the other hand, when a consequence is delivered indirectly, another person besides the individual engaging in self-monitoring administers the consequence. The targeted behavior selected for intervention can increase through the application of contingencies that are analogs to both positive and negative reinforcement (Cooper et al., 2020).

Application of Contingencies that are Analogs of Positive Reinforcement

When an individual is allowed to determine their own earnings (i.e., tokens, points, minutes of time) that is based on a self-assessment of their exhibited behavior, targeted behaviors have been shown to improve (Koegel et al., 1992; Olympia et al., 1994; Cooper et al., 2020). Interventions that feature self-administered rewards can prove difficult to evaluate as these interventions often are confounded by other variables. Some examples of these confounding variables can include criterion setting, the process of self-monitoring, the process of self-evaluation, various external contingencies that may present regarding the targeted behavior, and either the actual or suspected surveillance. Individuals that engage in self-recruited reinforcement are taught to self-evaluate their own work every so often and then show it to another individual as a way of seeking out feedback or help completing something. In this method, individuals are able to

administer their own reinforcement by seeking out another person's attention that is typically followed by praise or other kinds of reinforcement.

Application of Contingencies that are Analogs of Negative Reinforcement

Some of the self-management interventions that have been integrated into an individual's life revolve around the use of self-determined escape and avoidance contingencies that are analogous to negative reinforcement. By engaging in these types of interventions, the individual emits the targeted behavior so that they are able to avoid an aversive event or task. For example, an individual may desire to increase the minutes they exercise each week. If their goal is to exercise for 30 minutes three times per week, then they could implement the contingency of paying $5 to their friend each week that they do not meet this targeted behavior.

Self-reinforcement Strategies that Decrease Behavior

The occurrence of a targeted behavior can be decreased by implementing self-administered consequences that are analogous to positive or negative punishment.

Application of Contingencies that are Analogs of Positive Punishment

The occurrence of a targeted behavior can be decreased by following each instance of the behavior with either stimulation that can cause pain to an individual or through the exhibition of an aversive activity. For example, if an individual wants to decrease the amount of food they snack on, they could flip themselves with a rubber band worn around their wrist each time they reach for a snack. Additionally, when an individual implements a positive practice overcorrection procedure, this is also an example of a self-administered positive punishment. For example, an individual may use incorrect grammar when speaking various sentences. When they notice that an incorrect word is used while speaking, they repeat the corrected sentence five times in a row while also wearing a wrist counter to remind them to listen to the words that they are speaking and to be aware of the language that they are using.

Application of Contingencies that are Analogs of Negative Punishment

By denying an individual access to reinforcement for a certain period of time or arranging the loss of reinforcers as a consequence are both considered applications of contingencies that are analogs of negative punishment. Some of the most widely used

self-management tactics include the use of response cost and time-out contingencies. Some interventions implement the use of paying a small fine each time the exhibition of the target behavior occurs. For example, each time an individual engages in smoking a cigarette, they may be asked to place a dollar into a jar.

Guidance for Consequences that are Self-administered

There are several recommendations that can be outlined when individuals are designing and implementing consequences that are self-administered.

Consequences Should be Small and Easy-to-Deliver

Self-management strategies should employ the use of consequences that are both small and easy-to-deliver. Consequences should hold these characteristics in the use of both rewards and penalties. Often, large consequences are not successful when used with self-management programs. Additionally, self-selected rewards and consequences that are punishing should not be too severe, costly, require a significant amount of time, or be too elaborate. If these are the characteristics of either a reward or a consequence, then the individual may not be able to or want to deliver these consequences in a consistent and timely manner. Therefore, it is often better to integrate the use of consequences that can be accessed often and immediately. In order for a consequence to be effective as either a reward or a punisher, they should be administered immediately each time the targeted behavior is exhibited.

Criterion for Reinforcement Should be Meaningful but Able to be Achieved

As the contingencies for self-administered consequences are being constructed, it is important to ensure that reinforcement contingencies shy away from two main points. One item that should be guarded against is setting expectations for an individual too low so that the improvement of the targeted behavior or their performance is not necessary to obtain the self-administered reward. The second item that should be guarded against is setting the initial performance criterion at a level that is too high. By doing this, it will inadvertently implement an extinction contingency that will enable the individual to forego and give up on the self-management process as a whole. Therefore, it is important to set an initial criterion that allows an individual to access reinforcement early in the process, yet continues to ensure that the individual will make improvements

in the targeted behavior from baseline performance over the course of the self-management process.

Ensure Bootleg Reinforcement is not Accessed

When an individual is able to access reinforcement that is as equally reinforcing without having to meet the requirements of the contingency that have been set forth, this is known as bootleg reinforcement. Bootleg reinforcement has been known to be a common deficit of self-management processes. If an individual is able to access comparable rewards without having to meet specific response requirements, they are then less likely to work to earn response-contingent rewards (Cooper et al., 2020). Unfortunately, bootleg reinforcement is likely to occur when individuals integrate the use of everyday items as rewards in a self-management strategy. These items may be easy to deliver as they are typically more accessible than other items; however, this can cause a self-management strategy to not be effective for an individual. Although it may be difficult for an individual to withhold things that they are able to access and enjoy on a day to day basis, it is important for the individual to find a reward that they are able to limit access to or only earn on special occasions. For example, an individual may enjoy eating candy which is easily obtained in their everyday environment. If this is a familiar situation, then it may be best to go to a specialty candy shop for the individual to pick out candy they can only get when they complete a specified response that is not easily accessible in their everyday environment.

If the Need Arises, Have Someone Else in Control of the Consequences

Often, self-management strategies are not successful because the contingencies that are imposed are not strong enough to control the controlling behavior. This means that the individual is not able to exhibit the controlling behavior consistently enough for them to be able to see the effects of the behavior. If an individual is having difficulty being able to follow through with delivering consequences for a targeted behavior, then they should find another individual that could serve in this role. This will allow for the consequences to be delivered consistently and each time the performance criterion is met. Decisional self-control allows an individual to initially decide that they would like to change a specified behavior but then relinquishes the procedure to a different individual so that the possibility of not being able to emit the controlling response can be avoided. By soliciting the help of another individual, this can allow the self-management process

to be more effective than attempting to follow through with the strategy alone. The other person involved allows for consistency to occur throughout the process.

Make the Process Simple

It is vital that a self-management strategy is simple and not elaborate. The least complicated and intrusive tactics are often found to be the most effective at ensuring that behavior change can occur for an individual. An elaborate self-management plan should only be used if it is necessary for the individual so that behavior change can occur. If this type of plan is warranted, then it is best to err on keeping the strategies and tactics used as simple as possible for the individual implementing them.

Section 5 Personal Reflection

Which self-management procedures have you previously been exposed to or participated in? Did you find that any of the guidelines for administering consequences were not followed within the implementation of these self-management procedures? What was done, if anything, to alleviate any potential conflicts that occurred when these guidelines were not followed?

Section 5 Key Words

Bootleg reinforcement - an individual is able to access reinforcement that is as equally reinforcing without having to meet the requirements of the contingency that have been set forth

Confounding variable - a type of extraneous variable that can have an impact on the outcome of a study or intervention

Decisional self-control - allows an individual to initially decide that they would like to change a specified behavior but then relinquishes the procedure to a different individual so that the possibility of not being able to emit the controlling response can be avoided

Positive practice overcorrection procedure - a person practices an activity with the appropriate behavior

Response cost - a type of punishment procedure where wanted items are removed or taken away

Time-out procedure - procedure where the individual is repositioned within a setting, so they are able to continue to observe the ongoing activity but unable to access reinforcement

References

Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). *Applied behavior analysis* (Third edition.). Pearson Education, Inc.

Craig, A. R. (2010). Self-administered behavior modification to reduce nail biting: incorporating simple technology to ensure treatment integrity. *Behavior Analysis in Practice*, *3*(2), 38–41. https://doi.org/10.1007/BF03391763

Erhard, P., Wong, T., Barnett, M., Falcomata, T.S., Lang, R. (2022). Self-management skills and applied behavior analysis. In: Matson, J. L., Sturmey, P. (eds) *Handbook of Autism and Pervasive Developmental Disorder. Autism and Child Psychopathology Series.* Springer, Cham. https://doi.org/10.1007/978-3-030-88538-0_41

Farrell, A., & McDougall, D. (2008). Self-monitoring of pace to improve math fluency of high school students with disabilities. *Behavior Analysis in Practice*, *1*(2), 26–35. https://doi.org/10.1007/BF03391725

Koegel, L. K., Koegel, R. L., Hurley, C., & Frea, W. D. (1992). Improving social skills and disruptive behavior in children with autism through self-management. *Journal of Applied Behavior Analysis, 25*, 341-353.

Marshall, K. B., Rohrer, J. L. (2022). Building independence: Self-management for individuals with autism spectrum disorder. In: Leaf, J.B., Cihon, J.H., Ferguson, J.L., Weiss, M.J. (eds*) Handbook of Applied Behavior Analysis Interventions for Autism. Autism and Child Psychopathology Series.* Springer, Cham. https://doi.org/10.1007/978-3-030-96478-8_30

Olympia, D. W., Sheridan, S. M., Jenson, W. R., & Andrews, D. (1994). Using student-managed interventions to increase homework completion and accuracy. *Journal of Applied Behavior Analysis, 27*, 85-99.