



Affordable ABA

Implementation of Evidence-based Practices as Best Treatment Options



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Introduction

Practitioners must learn to weigh relevant evidence as well as target and stakeholder client information for each individual they provide services for. By focusing on a process for integrating this information, the best treatment option can be selected, and evidence-based practices (EBP) can be implemented that meet the needs of their clients. EBP is a term that has been used to encompass a practitioner's ability to use their own professional judgment integrated with the best available evidence as well as consideration of any relevant client variables in order to make a decision on a course of treatment. Through this practice, a practitioner seeks to use an EBP decision-making model as a method for determining if a selected effective treatment intervention is able to be used accurately to affect meaningful change for the service recipient. Factors that are associated with this decision-making model are typically similar across disciplines.

However, a distinction has been made on the EBP of applied behavior analysis (ABA) when compared to other disciplines for several reasons. EBP has most recently been integrated within the field of ABA within the past several years. With this recent introduction, the need has risen for a guide to be developed for practitioners that includes their ethical guidelines and use of literature.

Additionally, the field of ABA has a distinct focus on changing the behavior of humans. Each discipline seeks to change human behavior in some form. By helping these practitioners from various disciplines to understand how behavior change can occur, this should help each discipline meet their own unique goals.

It is important to note that various disciplines coin the phrase EBP as a way of describing different treatment interventions that have systematically been evaluated and considered effective. This is problematic for several reasons. First, practitioners that use this term with this meaning implied could select a treatment intervention at random from a predetermined list of approved interventions with

the intent of the intervention providing a favorable and intended outcome. This hinders a practitioner from using their professional judgment to make decisions regarding treatment that include client variables, evidence that supports treatment options, and how the treatment is an appropriate fit for the situation. Secondly, if a practitioner views an intervention as being evidence-based simply because it has been identified on a list of approved treatments, the practitioner may make decisions that are weak, and poor client outcomes may be demonstrated. Thirdly, by using the term EBP in more than one way with more than one definition, this can lead to poor communication among practitioners and different disciplines. Using a term to represent both a process and a procedure can lead to confusion. The term evidence-based to describe a treatment that has been systematically evaluated and viewed as being effective should instead be labeled as an empirically supported treatment (EST). Even though this may be a practical alternative, practitioners should still exude caution when using an EST without thorough assessment.

In this course, participants will learn (1) the different types of evidence that practitioners use in the EBP process, (2) how to conduct a systematic review, (3) how to weigh and integrate evidence, (4) how to monitor the progress of a service recipient, and (5) what steps can be completed next after a treatment intervention has been implemented.

Section 1: Evidence Used in EBP

The common type of evidence that practitioners utilize in the process of EBP to choose whether or not to implement a treatment is that of a systematic review. Often, though, systematic reviews may not be readily available or relate well enough to the service recipient's current situation to be applicable. Therefore, practitioners may have to rely on other sources of evidence such as narrative

reviews of the scientific literature. Additionally, practice guidelines, which are a cross-over between a narrative review and a systematic review, have also been used by practitioners as a source of information. As these types of evidence are used, they should also be supported by evidence that delineates the scientific explanation of human behavior otherwise known as principles (Wilczynski, 2017). Evidence that can also be viewed as being directly related to the service recipient will be beneficial throughout the use of the EBP decision-making model. The history of the service recipient as well as any other client data can have a significant impact on determining which treatment is the most suitable for the service recipient and their situation.

Practitioners should understand how to navigate and access evidence as it relates to both systematic and narrative reviews. Often, systematic and narrative reviews can be located by reading through scientific journals. In an effort to access these reviews, a practitioner should locate a search engine and are encouraged to use university libraries if they maintain access to one. There are several free search engines that are available, though, if a university library is not able to be accessed. Google Scholar, PubMed, and ScienceDirect are all accessible and can be used by entering common keywords to locate information as it pertains to a particular treatment intervention or situation that is relevant to a service recipient (Wilczynski, 2017).

Systematic Review

An evidence-based practitioner should attempt to use the strongest as well as the most relevant evidence that is available to them when developing the best course of action for the service recipient that they are working with. A systematic review provides a practitioner with the most credible and comprehensive analysis that is available and is viewed as being the best source of information regarding the effectiveness of a treatment intervention (Wilczynski, 2017). Systematic reviews

are considered to be the least biased source of information for several reasons. First, the research that is included in a systematic review is listed based on a thorough, analytic, and standardized method. Secondly, the information that is used in a systematic review is selected based on the integration of clear procedures. Thirdly, the process that is used for selecting or weighing this information can be replicated and is considered to be transparent. Lastly, this standardized process eliminates the ability for decisions to be made based on personal biases or influences and minimizes one's decision-making based on arbitrary and idiosyncratic selections.

A systematic review includes a careful review of information through the quantity, quality, and consistency of the research that is available on a particular topic. Conducting a systematic review typically requires a team of professionals that are attempting to answer one of two types of questions. The first type of question (i.e., Method #1) involves seeking the answer to whether or not a particular treatment intervention is effective. By using the word effective, this would imply that a particular treatment intervention works for a service recipient in a real-world setting. If the term efficacious were to be used, this would imply that a particular treatment intervention was effective under specific research parameters. Through answering this type of question, the professionals are attempting to evaluate the information available as it relates to all populations for a certain treatment intervention. The second type of question (i.e., Method #2) that is attempting to be answered seeks to determine if there are any effective interventions that are available for a particular population. Through answering this type of question, professionals seek to evaluate all of the information available regarding all treatments that have been studied for the population under consideration.

Neither of these types of questions are more superior to another yet both types of questions seek to find answers that are different. However, it is important for

practitioners to understand how each of these methods are different, so they know how to utilize the information within the EBP decision-making process. A practitioner should select Method #1 if they have the goal of identifying the total amount of information that is used to support a treatment intervention. A systematic review that integrates the use of Method #1 evaluates and works to include every study that has been conducted with diverse population groups. For example, these studies would include individuals that are young and old, with a disability or no disability, or in various environments such as schools or hospitals. The benefit of using this method is that a professional can gather an understanding of all of the information that is available for a selected treatment intervention. These types of systematic reviews tend to gather more information than others which makes it easier for a practitioner to determine if the selected treatment intervention will work for the service recipient. However, despite this information that is gathered, it still remains to be known if the selected treatment intervention will work for a service recipient like the one intended. In order to be able to determine this, a practitioner will need to commit to working to answering an additional series of questions. Some of these questions may include, “Is there enough information that the selected treatment intervention will (1) work for service recipients that are the same age or developmental level as my service recipient, (2) either increase or decrease a predetermined behavior, or (3) work in a selected environment?” (Wilczynski, 2017). Often, a practitioner will need more specific information than that gathered through a systematic review that uses Method #1 in order to answer the practicality of the research question that began the practitioner’s search for information.

When professionals conduct a systematic review that integrates Method #2, a practitioner looks to evaluate all treatments for a specific population and can answer many of the questions that were not answered through use of Method #1. Even though these questions may be answered, a practitioner should still evaluate

the data in a systematic and careful manner. Some treatment interventions may be noted as being experimental or having developing evidence. This type of information means that the treatment intervention has some level of effectiveness, but not quite enough evidence that reveals it works with the selected population. Therefore, it is important for a practitioner to evaluate all sources of information and to use their professional judgment as they are selecting and implementing a selected treatment intervention for a service recipient.

When a practitioner selects a treatment intervention, they should work to identify a treatment intervention that has the best available information for their service recipient. This information may be selected from (Wilczynski, 2017):

- A systematic review that includes data that has been delineated by features that are relevant to the service recipient, their environment, and their behavior (i.e., age, target behavior)
- An evaluation of the articles that are part of the systematic review to ascertain the differences that may occur between the research participants and setting and from the service recipient's situation
- A systematic review that also includes an additional systematic review for additional populations

How to Conduct a Systematic Review

A systematic review attempts to pay close attention to the quality, quantity, and consistency of various research outcomes. Across systematic reviews, though, the criteria that is used to determine these factors can vary.

Quality

A practitioner should attempt to evaluate the quality of each study considered as all studies that have been published do not provide strong evidence in support of a selected treatment intervention with a given population. The quality of a research study is determined by the research design, the dependent variables that were included in the study, and the treatment fidelity. Several of the studies also choose to include an evaluation of the participant's ascertainment (i.e., the quality of the methods that were utilized to determine the diagnosis of a participant) and generalization (i.e., how the effects of a treatment intervention are able to take hold in other environments or situations over a period of time) (Wilczynski, 2017). In the information below, each of these factors are defined and variables that are common are delineated that professionals use to determine the quality of each study that is included in a systematic review) (Wilczynski, 2017):

<u>Factor</u>	<u>Definition</u>	<u>Common Variables</u>
Research Design	The method that is used to assess whether or not the independent variable is functionally related to the dependent variable	<u>Group Research Design</u> *Randomization *Attrition *Number of groups and participants <u>Single-subject Research Design</u> *Number of comparison and participants *Number of data points per condition *Attrition

Dependent Variable	Measures change	<u>Checklists, Tests, etc.</u>
		*Standardization
		*Measurement type
		*Independence of evaluators
		<u>Observation</u>
		*Continuous/discontinuous data type
		*IOA or kappa values
		*Percentage of session observed
Treatment Fidelity	Accuracy to which a selected treatment intervention has been implemented	*Volume of treatment fidelity collected *IOA on treatment fidelity
Participant Ascertainment	Accuracy of a participant's diagnosis	*Qualifications of individual that made diagnosis *Current DSM or ICD criteria met
Generalization	How the effects of a treatment intervention are able to take hold in other environments or situations over a period of time	*Objective data *Maintenance, generalization across settings, people, materials

Other systematic reviews also include an evaluation of social validity (i.e., how a service recipient describes a treatment as fair and appropriate). Despite the criteria included, a practitioner that evaluates systematic reviews should understand that various groups of professionals will include different criteria that are to be used within their systematic review for inclusion. There is no set of

inclusion criteria that are the best; however, a practitioner should know that differences may exist between systematic reviews when evaluating the information for how it is applicable to their service recipient and their situation.

More recently, systematic reviews have started to include studies that utilize a single-subject research design. These types of systematic reviews may be regarded as having less credence, but this is not necessarily correct. It is important for a practitioner to evaluate the research studies carefully and determine their applicability to their service recipient. Not all research designs are flawless, and it is a possibility that an incorrect conclusion could be developed based on a limitation of a particular research design.

Quantity

A treatment decision should not be based on the effectiveness of one research study as it is not sufficient enough to allow for such determination even if the study is a high-quality study. This study has a possibility of having produced results that are spurious (i.e., results that seem to be valid but truly are not). Part of the scientific process includes having research studies and their effects that have been reproduced or extended upon (i.e., conducting a study that is similar to one that has already been completed). Results that are included in a research study are considered to be credible once they have been reproduced (Wilczynski, 2017). Prior to conducting a systematic review, a group of experts will determine how many studies are needed in order to show whether or not a treatment intervention is effective.

Consistency of Treatment

The consistency of treatment intervention outcomes helps to determine if a selected treatment intervention is effective. Some systematic reviews will outline the criteria for determining consistency. However, if a practitioner finds that a

treatment intervention works well in some studies but not as well in others, then they should proceed with caution before implementing the selected treatment intervention. Additionally, a systematic review should include information as it pertains to harm or side effects that occurred so that it allows practitioners to make informed decisions concerning a treatment intervention.

Once the quality and quantity of the studies have been assessed, these outcomes should be categorized to determine the consistency of the outcomes obtained. First, studies that use the same treatment intervention are grouped together into a single category. This grouping can be difficult to do because different studies will use the exact same name to describe a treatment intervention even when the treatment interventions are different from one study to the next, some studies will use different names to describe the same treatment intervention, and the question of how pure does a treatment intervention need to be will have to be answered. Furthermore, categories that are used to group different studies can vary and be either small or large. If a practitioner is unable to find a particular treatment intervention included in a systematic review, they should consider looking in the different categories available as it could be part of a larger category.

Treatment Effectiveness

After the quality and quantity of studies has been evaluated and the categories of treatments are developed, these results are then evaluated against a predetermined criterion that is reflective of a certain level of effectiveness. If the criterion that has been established has been met, then the selected treatment intervention has been concluded to be effective. On the other hand, if the criterion was not met, then the selected treatment intervention is referred to as experimental or having no evidence.

The determination that is made to call a treatment intervention effective can be influenced by several different factors and decisions. It is important for a

practitioner to review the processes that were used in conducting the systematic review with a particular population to decide if the selected treatment outcome could be beneficial for the service recipient that they are working with.

Other Avenues for Gathering Information

Systematic reviews may not be worthwhile to use in every situation or with every service recipient. For example, a systematic review may not have been completed regarding the topic of interest. Secondly, the systematic reviews that have been conducted may not be applicable to the question that the practitioner is attempting to address. Additionally, the systematic reviews that are available may no longer be credible due to them being outdated. Lastly, a systematic review is not a perfect way to gather information as some bias may exist within this evidence.

There are two ways that bias may be present within a systematic review. First, publication bias may be present where there is only selective reporting that has occurred of studies that have been completed. Often, studies that demonstrate that a treatment intervention is not effective or did not work are less likely to be published. Researchers may run into situations where the results of their study do not demonstrate positive results, and a journal is not likely to publish these types of results. Therefore, when a systematic review has been conducted, since these research studies are not available in journals, these results are not included in the reporting of completed studies. Another type of bias that may be present is outcome reporting bias. This type of bias is where researchers choose to report only positive findings. For example, a researcher may have conducted a study that looked to decrease the exhibition of aggressive behavior and increase social skills of the participant. The results of the study may have shown a decrease in the exhibition of aggressive behavior but not an increase in social skills. When the researcher submits the results of their study for publication, they may only

include information pertaining to the decrease in aggressive behaviors and provide no indication that part of the study was on increasing social skills.

Through this understanding that systematic reviews are not always a perfect source of information for a service recipient and their situation, a practitioner should understand that they should look at other avenues for information to support the implementation of their treatment intervention. Some other avenues that a practitioner could pursue include narrative reviews, evidence-based practice guidelines, scientific principles of behavior, client history, and current client data (Wilczynski, 2017).

Narrative Reviews

Consensus and critical reviews are types of reviews that fall under the category of narrative reviews. A consensus review, otherwise known as a best practice panel, allows for a group of knowledgeable individuals to use their own expertise to evaluate the information available. These knowledgeable individuals have been requested to use their expertise to evaluate the information because they are known to have extensive knowledge on the topic and have also made their own contributions to the literature concerning the topic. The biggest limitation of utilizing this type of review is that there is reason to believe that potential bias may be a factor in the final conclusions. The bias may occur as a result of the selection process that occurs at the initiation of a review. Unfortunately, it is not always clear how the panel of experts are chosen to conduct the review of information. An expert could be included on a panel because they have similar opinions to an editor or funding agency that has requested their guidance. An expert on the panel may also exhibit bias by emphasizing one particular study or another. Additionally, one expert may state their opinion regarding a particular topic and other members of the panel may agree with this opinion without conducting their own due diligence. When experts on a panel have more diverse

views about the information being reviewed, these sources of bias are less likely to be seen. However, it is also more difficult for a larger group of experts to come to an agreement when writing the review.

On the other hand, a critical review is another type of narrative review that is similar to a consensus review. Instead, a critical review is conducted by a single researcher or a group of researchers that have not been solicited based on their knowledge of the topic area. However, this type of review is susceptible to the same types of bias as a consensus review. Even though there are limitations with both a consensus and critical review, these types of reviews can provide valuable information especially when a systematic review is not available concerning the topic area under discussion.

Practice Guidelines

Often, systematic reviews are completed that still leave questions that have not been answered. When this situation arises, practice guidelines are used as they act as a crossover between that of a systematic review and consensus review. Practice guidelines may delineate resources that are needed for implementation of a treatment intervention to be accurate, treatment fidelity checklists, and methods that can be used to alter a treatment intervention so that it best matches the characteristics associated with a service recipient and their environment. Even though practice guidelines can prove to be very beneficial to practitioners, it is important to note that a practitioner should use caution when utilizing them. A practitioner will need to determine when different recommendations are made based on the opinion of an expert that is knowledgeable in a certain topic area or on scientific evidence.

Recommendations that are made that are nonscientific can be useful; however, a practitioner should only use these when other avenues of information are not available that are based on evidence. Additionally, data will need to be continually

collected so that an analysis can be conducted to determine whether a treatment intervention should be continued, revised, or discarded particularly when weak empirical support is provided. Furthermore, even though practice guidelines also produce similar limitations to those delineated within narrative reviews, they still can prove to be beneficial to practitioners.

Principles

An additional source of information that can be used when selecting a treatment intervention is that of the principles that are used to explain human behavior. A treatment intervention should be conceptually consistent with the principles that are utilized to explain human behavior. Therefore, practitioners should be able to use ABA principles when selecting a treatment intervention to implement with a service recipient. The following ABA principles should be thoroughly considered when selecting a treatment intervention (Wilczynski, 2017):

- A functional relationship exists between that of an exhibited behavior and at least one or more controlling variables that are present within the environment
- The use of reinforcement, either positive or negative, can strengthen a behavior
- The use of punishment can weaken a behavior
- When reinforcement is removed, through extinction, this can weaken a behavior
- Stimuli may be present during responding or signal the discontinuation of a response

Studies that have been conducted throughout the years and by various researchers have evaluated a multitude of topics, populations, and environments

to develop these principles. These principles can be used as a valuable tool and information as they are based on and supported by research. Although this may be the case, it is important to understand that these principles have not been submitted to a systematic review. This means that they have not undergone the most rigorous process available for evaluating the effectiveness of an intervention. While this may seem alarming, it does not need to be for a practitioner as a selected treatment intervention should be conceptually systematic with these ABA-based principles. Principles should be used in a complimentary manner to other avenues for gathering information, not in a way that replaces other methods (Slocum et al., 2012).

A practitioner may create a treatment that is composed of multiple components from various ABA-based principles. Multicomponent treatment interventions have not been evaluated through a systematic review as there are often not enough studies that exist that contain these exact same components to need a review. When there is not enough evidence from other sources, a practitioner should still use principles when making decisions regarding whether or not to continue to implement, alter, or discern a treatment intervention.

Some treatment interventions do not always use or follow the same methods as described in other studies because a treatment intervention may be modified to fit the needs of the current service recipient. Through the use of these principles, these modifications can be made so that these decisions are based on sound methods. However, a practitioner should still proceed with caution when they are making modifications to treatment interventions. A practitioner should ask the following question, "Is the treatment intervention being used modified in such a way that it is completely different from the treatment intervention that was used in the research, making it no longer able to be empirically supported?" It is important to ask this question, even when the treatment intervention that is

being considered is supported by research and is consistent with principles used to explain human behavior.

The History of a Service Recipient

A practitioner looks at the history of a service recipient to determine if other treatment interventions that have been implemented previously were effective or to assess the outcomes that were exhibited. A practitioner evaluates a service recipient's treatment history with caution, though, as a treatment intervention that was previously effective may not be effective at the current time or vice versa.

Confounding Explanations

When a treatment intervention has been noted as being effective for a service recipient previously, this treatment intervention should be given priority when compared to other treatment interventions that are available. The need to prioritize in this manner should be taken into consideration, especially when the change in behavior and improvement occurred due to a treatment intervention. Even though this may be the case, a practitioner should also realize that they should still proceed with caution as a behavior that was effectively changed in the past may not undergo a change currently with the same procedures as other variables may play a factor in the exhibition of the behavior now or the change in behavior could have been due to other factors not related to the treatment intervention. This plausible explanation for the change in behavior can be ruled out through use of a single subject research design. Typically, a practitioner would:

- Determine what the problem is such as a behavior that needs to decrease in occurrence or a skill that needs to be increased
- An assessment should be conducted that helps to determine a treatment intervention to be implemented

- The treatment intervention is implemented with the service recipient
- Different outcomes are determined based on the results of the intervention

Even though the above-mentioned approach is practical to integrate into the life of a service recipient, it still does not always provide an explanation for alternate reasons for the change in behavior.

Treatment Fidelity

Oftentimes, treatment interventions are implemented and discerned without there being any real evidence that they were implemented accurately. It is always a possibility that a treatment intervention was not able to be used to effectively change a behavior due to the treatment intervention not being implemented accurately. If treatment fidelity data are not collected, a treatment intervention should not be easily rejected as there is no reason to note that it was ineffective. A practitioner should not reject a treatment intervention that has been described as being ineffective based on the history of the service recipient unless treatment fidelity data demonstrate that the treatment intervention was not implemented accurately.

Various Environmental Conditions

Different environmental conditions can be associated with either undermining or supporting the effectiveness of various treatment interventions. If a treatment intervention was implemented in the past with a service recipient that was not effective at changing the behavior but was accurately implemented, the practitioner may choose to consider this treatment intervention as an appropriate treatment intervention if the environmental conditions are considerably different. Therefore, it is important for a practitioner to evaluate and consider several sources of information as well as evaluate a multitude of client and contextual

variables when making a decision regarding what to do with a treatment intervention.

Service Recipient Data

A practitioner's decision should be driven by data, and current data should ultimately be considered when making treatment decisions. This type of data should be used alongside other sources of information when deciding on a treatment intervention to implement with a service recipient. Any source of information that helps a practitioner to select the best and most appropriate treatment intervention for a service recipient should be considered and weighed based on the support it can provide for implementing the selected treatment intervention.

Section 1 Personal Reflection

What are some methods that you have used to gather information regarding a treatment intervention that you would like to implement with a specified service recipient?

Section 1 Key Words

Ascertainment - the quality of the methods that were utilized to determine the diagnosis of a participant

Consensus review - also known as a best practice panel, allows for a group of knowledgeable individuals to use their own expertise to evaluate the information available

Critical review - conducted by a single researcher or a group of researchers that have not been solicited based on their knowledge of the topic area

Effective - a particular treatment intervention works for a service recipient in a real-world setting

Efficacious - that a particular treatment intervention was effective under specific research parameters

Evidence-based practices (EBP) - a term that has been used to encompass a practitioner's ability to use their own professional judgment integrated with the best available evidence as well as consideration of any relevant client variables in order to make a decision on a course of treatment

Extension - conducting a study that is similar to one that has already been completed

Generalization - how the effects of a treatment intervention are able to take hold in other environments or situations over a period of time

Practice guidelines - crossover between a narrative review and a systematic review

Publication bias - only selective reporting of studies that have been completed

Social validity - how a service recipient describes a treatment as fair and appropriate

Spurious - results that seem to be valid but truly are not

Treatment fidelity - the accuracy to which a selected treatment intervention has been implemented

Section 2: How to Weigh and Integrate Evidence

For each service recipient that a practitioner provides services for, the practitioner must weigh any relevant information as well as evaluate information pertaining to

the service recipient. There is not a specific method that is universally used by all practitioners to analyze this information, but there are some processes and steps that can be integrated that will assist practitioners with weighing and integrating all of the information available, so they are able to select the best treatment intervention available for their service recipient.

The Initial Steps in the Process of EBP

The EBP process should always begin with the question that needs to be answered for the service recipient. These questions will differ from one service recipient to another and will depend on a multitude of variables as well as the environment in which the service recipient is in. For example, a practitioner may ask, “How can we help a 12-year-old student remain seated in the classroom?” It is important for a practitioner to stay focused on the pertinent question they are seeking to answer and not lose sight of this question that began the EBP process. Losing sight in this process can cause a practitioner to choose a treatment intervention that is not best for the service recipient or one that will not produce the most desirable outcomes.

Step 1: Determine the Best Source(s) of Information

A treatment intervention should only be selected for implementation by a practitioner if it is related to the question that is attempting to be answered. A practitioner should pay close attention to sources of information that are closely related to and associated with the situation they are working through.

Additionally, a practitioner should evaluate the results that exist from credible systematic reviews that have been conducted. In order for a practitioner to determine if a systematic review is considered credible, the practitioner should base their decision on the quality, quantity, consistency of outcomes, types of studies included, and the categorization of treatment that was included.

Furthermore, the practitioner should determine if the systematic review aligns

with the service recipient (i.e., age, diagnosis) and if the research included was conducted recently. If the practitioner finds that the research listed in the systematic review is older, then the practitioner should attempt to find other sources of information that are more recent. Throughout the review of information available, the practitioner should be able to devise a list of treatment interventions that have been shown to be effective. If there is a treatment intervention that has been suggested for the service recipient that is not on the aforementioned list of effective treatment interventions, then the practitioner should evaluate whether this treatment intervention is consistent with the principles used to explain human behavior. These treatment interventions that do not align with the principles used to explain human behavior should be placed further down on the list of treatment interventions available. These treatment interventions should not be discarded, but instead further analyzed to determine how and why they may be effective for the service recipient since they are not behavioral in their orientation.

Next, the practitioner should evaluate the history of the service recipient and the current data that are available for review. The service recipient's history may be valuable information for a practitioner when further determining how to prioritize the treatment interventions that are still on the list. However, it is important for a practitioner to not place too much emphasis on a service recipient's history. It is important to remember that a treatment intervention may not have been effective because it was not implemented properly, or a service recipient may have now learned new skills that will affect how the treatment intervention influences the change in behavior. Additionally, current data can help a practitioner to determine the best treatment intervention for the service recipient from the list of available treatment interventions. This data can be used to help prioritize treatment interventions.

Once the practitioner has evaluated all of the variables and sources of information available, the practitioner should create a finalized list of treatment interventions available in rank order. This list should be created based on the best available evidence. It is important to understand that this list may not be easy to create, and the source of information may not always be clearly aligned with the service recipient, their environment, or the question that is trying to be answered.

Step 2: Relevant Service Recipient Variables Should be Reviewed that Could Influence the Selection of a Treatment Intervention

The treatment interventions that are delineated on the list through step #1 are then prioritized by the practitioner based on service recipient variables. These service recipient variables include things such as health, preference, repertoire, or social validity. For example, the medications that a service recipient takes, the medical conditions that are associated with the service recipient, or other mental health issues that the service recipient is experiencing are all variables that may influence if a particular treatment intervention will be appropriate for a service recipient or not. The treatment interventions that are on the list should be reprioritized based on the information that is gathered from these variables.

The service recipient's repertoire is also used to help prioritize treatment interventions. A practitioner should determine if a service recipient has the prerequisite skills needed in order for the treatment to be effective at changing the behavior. If a service recipient does not have the prerequisite skills needed, then the treatment intervention should not be considered as an option at that time. Despite this, it is still important for the practitioner to have a discussion with the relevant stakeholders regarding this concern. The stakeholders may choose to work on the prerequisite skills that are needed which would allow for the treatment intervention to be an option for implementation in the future. Additionally, if a treatment intervention that is delineated on the list of effective

interventions could potentially result in a behavioral cusp, then this treatment intervention should be prioritized higher on the list.

A practitioner should place a fair amount of weight on the preferences of the service recipient. A treatment intervention that utilizes the results that are obtained through a preference assessment as a method for developing a consequence-based treatment intervention should be prioritized higher on the list. There is a significant amount of evidence available that pertains to choice; therefore, a practitioner should become knowledgeable in this area and integrate choice into a treatment intervention when it is appropriate for the service recipient. Additionally, a treatment intervention that has preference as a natural by-product of the treatment intervention should be placed higher on the list as well.

Another area of concern for a practitioner is that of social validity. One main purpose as to why a practitioner provides services to different service recipients is to hopefully improve the quality of their life in some way. Treatment interventions that are able to expand on the opportunities that are available to a service recipient including those that are similar to the experiences that the rest of the population encounters as well as connect the service recipient to others who are important to them and their community should be given priority over other treatment interventions. Also, treatment interventions that are able to lead to the generalization of various skills across different situations should be ranked higher. Lastly, if a treatment intervention, at any point, jeopardizes the physical and social well-being of a service recipient, then the treatment intervention should be ranked lower and ultimately eliminated from the list of possible treatment interventions.

Step 3: Conduct a Review of Relevant Variables that may Affect Decisions Regarding Treatment Intervention Selection

When further prioritizing the treatment interventions on the list, it is important for a practitioner to consider the values, preferences, and challenges that are faced by not only the service recipient but also by any relevant stakeholders and prominent members of the service recipient's life. One important item that should be considered is the family quality of life and how it aligns with the treatment interventions that are included on the list. The feasibility of each treatment intervention should also be evaluated as well as the monetary resources that will be required to implement the treatment intervention appropriately. These factors can create hardships on relevant stakeholders, and it is important to ensure that these barriers are reduced as much as possible to facilitate ease in implementation of the selected treatment intervention. It is necessary for environmental supports to also be in place in order for the implementation of the treatment intervention to be successful. If these environmental supports are not available, then the treatment intervention may not work at affecting change in a behavior, even though it may be widely supported by evidence-based research. Additionally, the inability to attain treatment fidelity data through the research review may indicate a proposed treatment intervention is not necessarily feasible for stakeholders to implement. Even though a stakeholder may be able to implement a selected treatment intervention with fidelity, this level of fidelity may not be able to be maintained over extended periods of time. This would result in the treatment intervention not being able to be implemented successfully and require a change in the program or the need for the treatment intervention to not be ranked high on the list.

Prior to selecting a treatment intervention for implementation, a practitioner should set aside time to meet with stakeholders and those that are prominent members of the service recipient's life. This meeting should aim to discuss a series

of issues that are present or could present themselves during implementation of a selected treatment intervention. Some of these issues may include resource allocation, experience of staff that will be implementing the intervention, the impact the treatment intervention may have on the service recipient or other service recipients, and how the selected treatment intervention will match with cultural norms. Once these issues are discussed, the practitioner should take a moment to reprioritize the treatment interventions on the list based on the discussions had with stakeholders and members of the service recipient's life that are key to them.

Step 4: Delineate Both Short and Long Term Goals

In this step, a practitioner should find a time to meet with the service recipient, stakeholders, and other individuals that are important members of the service recipient's life. During this meeting, each of the treatment interventions that are outlined as options on the list should be discussed with each member and an explanation should be provided as to why each treatment intervention is prioritized in the way that it is on the list. Barriers should be outlined and discussed regarding each treatment intervention as well as methods for overcoming these barriers. During this step, though, an initial treatment intervention selection is made. In a perfect world, the treatment intervention that is selected will be perfect and not require any modifications to remain effective. However, this is not typically the case, and a practitioner should be aware that modifications to a selected treatment intervention may need to be made.

A practitioner should be prepared that the initial treatment selection may be a process that is relatively simple, or it may result in intense discussions with members that have differing views. A practitioner can help facilitate these conversations by understanding and knowing the concerns as well as cultural

needs prior to initiating these initial discussions regarding treatment intervention selection.

Some of the proposed treatment interventions may only be a slight deviation from treatment interventions that have already been in place previously. Other treatment interventions, though, may involve integrating more than one treatment intervention at a time. There are challenges that may present with implementing two different treatment interventions at the same time. For example, there may be a need for an increase in resources or different environmental supports that need to be put in place to ensure accurate implementation. There may be times that more than one treatment intervention is appropriate to use with a service recipient, but the team feels that the additional treatment intervention(s) should be phased in so that they can be implemented with accuracy. By taking into consideration all of these challenges that different members of the team voice, this type of partnership model of treatment planning and implementation will go further with acceptability, contextual fit, and treatment fidelity than other types of models.

A practitioner should be able to determine when it is appropriate to discuss the need for both short and long term treatment interventions to be implemented with a service recipient. There may be times when stakeholders provide input that a treatment intervention can be implemented within the current parameters but in the future the resources needed to maintain accurate implementation will not be available. On the other hand, there may be times when multiple treatment interventions can be implemented with fidelity. The practitioner will need to be able to navigate the selection of treatment interventions based on situations, resources, and the capacity of stakeholders to implement the interventions with fidelity. There may also be times where additional training will be needed in order to implement these treatment interventions with a high degree of fidelity.

Implementation planning is key when deciding to implement both short and long term treatment interventions. Implementation planning consists of individualizing and adapting a selected treatment intervention based on the context. There are two types of planning that are necessary to include when engaging in implementation planning. These types of planning are action planning and coping planning. Action planning involves the practitioner and stakeholders reviewing all of the steps that are needed in order to implement the treatment intervention and adapt the treatment intervention so that it fits the context (Wilczynski, 2017). At this stage in planning, all of the resource constraints and environmental supports are rediscussed to determine any adaptations that need to be made to the treatment intervention. Some adaptations that have been made to treatment interventions can be found in the published literature regarding the treatment intervention. It is important for a practitioner to attempt to mirror adapted treatment interventions found in the literature as much as possible when an adaptation needs to be made or at least make every attempt to maximize the similarity between critical components of the treatment intervention. All adaptations that are made to a treatment intervention should be reviewed to ensure that they do not violate any principles that are used to explain human behavior. Action planning can also be used to determine when each step of a treatment intervention is to be implemented, how often each step should be implemented within the treatment intervention, and to also decide how long each step in the treatment intervention will be implemented for.

Coping planning includes being able to identify different barriers that may exist to successful implementation of a treatment intervention and determining solutions to work around each barrier. This type of planning should be a continuous process where the barriers are continually identified and solutions devised to overcome these barriers throughout the implementation of the treatment intervention.

Implementation planning should also consist of the practitioner assessing treatment fidelity, whether or not the treatment intervention was implemented as it was intended to be implemented, as well as the quality of adherence to each of the treatment protocols that were established (Wilczynski, 2017). Each of these steps are important throughout the process of decision making. After a treatment intervention has been initiated, a practitioner continually evaluates new evidence to ensure proper implementation of the treatment intervention and that the treatment intervention is still the best source of behavior change for the service recipient.

Step 5: Continuous Review of New Information

A practitioner continually collects information and data throughout the implementation of the treatment intervention in an effort to guide the team in their decision making efforts about whether or not a selected treatment intervention is effective at changing a behavior for the service recipient. The method that is used to collect data during the implementation of the treatment intervention should match the question that was being asked at the onset of selecting a treatment intervention. The data collection method that is selected should be based on the individual that will be collecting data as well as the experience that they have with collecting data.

Data are collected on several variables. Some of these variables include treatment fidelity, quality of adherence to each of the treatment protocols that were established, and if the treatment intervention was implemented as it was intended to be implemented. The treatment fidelity data that are collected can be used to determine if the implemented treatment intervention is feasible and if the service recipient has been able to access the treatment intervention. If a treatment intervention has been determined to not have been accurately implemented, it should not be dismissed unless the team agrees that the selected

treatment intervention is also not feasible. In these situations, the practitioner should set aside time for the team to meet to discuss solutions to overcome the barriers that have been presented. It is important to note that even the most skilled and highly trained individuals can make mistakes and miss vital components to be included in the implementation of a treatment intervention. Therefore, it is important that the quality of the implementation of the treatment intervention is analyzed. A practitioner should evaluate when the selected treatment intervention was implemented as opposed to when the treatment intervention should have been implemented as outlined in the plan of action. Barriers should be discussed that permit the treatment intervention from being implemented as intended and determine if these delineated barriers are able to be sufficiently addressed.

Additional information will need to be gathered on a continual basis as the treatment intervention is being implemented. The service recipient's preferences should be evaluated again once the treatment intervention has been implemented. Furthermore, the practitioner should evaluate the tolerability of a treatment intervention. When a practitioner evaluates this parameter, they are determining if the service recipient is able to tolerate the treatment intervention through their affect and enthusiasm. Consumer satisfaction is another variable where data are collected concerning the service recipient, stakeholders, and any other relevant individuals to the service recipient. Once a treatment intervention has been implemented, these individuals may determine that they do not like the selected treatment intervention or that barriers now exist that they did not plan on which makes the treatment intervention unfeasible. Throughout this process, the practitioner should continue to provide support to the team and make determinations based on the data that are collected regarding the treatment intervention.

Step 6: Consider Additional Steps

After information has been gathered regarding the implementation of the treatment intervention, the practitioner should set aside a time to meet with the team to discuss the next steps that should be taken. There are typically three different options that can be taken by the team. The first option includes leaving the treatment intervention to be implemented as is and develop a plan for fading the intervention as time progresses. Another option is to make an adaptation to the treatment intervention. This adaptation might consist of a small change but still needed to make a necessary change within the treatment intervention. When considering an adaptation to a treatment intervention, the practitioner will need to consider if this adaptation violates any principles that are used to explain human behavior as well as ensure that any of the critical components used within the treatment intervention are not removed or lessened to the point that the treatment intervention is no longer effective. Lastly, the treatment intervention could be dismissed. This could occur because the service recipient has not been able to make progress, the progress that is occurring may be happening at too slow of a rate in order for the changes to be meaningful, meaningful gains are not able to be made with the selected treatment intervention, the treatment intervention is not able to be implemented with fidelity, or the resources and environmental supports have changed and are no longer available to sustain the implementation of the treatment intervention. If this last option occurs, then the practitioner should revisit step 1 and evaluate the new information that has been collected regarding the treatment intervention. An alternate treatment intervention can typically be chosen fairly quickly because the team has already undergone the process previously.

Section 2 Personal Reflection

Are there any steps in the EBP process that you find will be difficult to integrate into your practices? Why or why not?

Section 2 Key Words

Action planning - involves the practitioner and stakeholders reviewing all of the steps that are needed in order to implement the treatment intervention and adapt the treatment intervention so that it fits the context

Behavioral cusp - a change in behavior that can lead to new opportunities or reinforcers

Coping planning - includes being able to identify different barriers that may exist to successful implementation of a treatment intervention and determining solutions to work around each barrier

Implementation planning - consists of individualizing and adapting a selected treatment intervention based on the context

Section 3: Monitoring the Progress of the Service Recipient

Monitoring the progress of the service recipient is a vital source of information once the treatment intervention has been integrated into the service recipient's life (Slocum et al., 2012). By engaging in progress monitoring, data are collected that allow the practitioner and other team members to make decisions regarding the effectiveness of the treatment intervention. In order for proper progress monitoring to occur, there are two main variables that need to be analyzed. The first variable includes data being collected often enough that a practitioner would

be able to make a decision in a timely manner regarding the effectiveness of the treatment intervention. A practitioner integrates treatment interventions that are effective at affecting meaningful behavior change for a service recipient. However, the practitioner is also able to quickly make a decision to change the course of action if a treatment intervention that was initially chosen is no longer working for the service recipient. In the initial steps of selecting a treatment and even throughout the beginning stages of implementation of the selected treatment intervention, it is not always known if the selected treatment will be or will not be effective. Therefore, a practitioner will need to be comfortable enough to use their professional judgment to ascertain the length of time that will be needed for a meaningful change to occur for a service recipient. Change can occur for some service recipients more quickly than others and for a multitude of reasons. Additionally, practitioners will need to guide the interpretation of the data collected as well as support the stakeholders and service recipients in determining conclusions that are based on data collected regarding the effectiveness of the selected treatment intervention. Furthermore, practitioners should engage in utilizing single subject research designs in a manner that clearly answers the targeted question being asked but is also an efficient method for stakeholders and the context for which they are in.

Data Collection

Selecting the Correct Data Collection Method

There are several methods for collecting data that can be used during implementation of single subject research designs. When all instances of behavior are accounted for by either recording each occurrence or deleting an occurrence, this is known as continuous measurement. This type of measurement system is helpful when precise levels of targeted behaviors or skills need to be represented through collection of data. However, it is not always practical to record every

occurrence of a targeted behavior. This can be due to various resource constraints or the absence of environmental supports needed to account for each occurrence. Therefore, a discontinuous measurement system is available. Discontinuous measurement includes the recording of a sample of targeted behaviors or skills of concern. Some discontinuous measurement systems include interval sampling, such as whole or partial interval recording, and momentary time sampling. Additionally, another data collection method can be through the use of permanent products. Permanent products include the recording of either real or concrete objects that demonstrate the integration of a targeted behavior or skills learned in everyday activities. For example, to determine if an intervention to learn multiplication facts was effective, a student's performance on a timed test could be used to collect data and the number of correct responses could be used as a variable to indicate an improvement in performance.

Frequency of Data Collection

The collection of data should occur on the most frequent schedule that is feasible to those collecting data. This allows a practitioner to make decisions based on multiple data points. If data are collected infrequently or less than one time a week, it makes it difficult for a practitioner to make timely decisions regarding the effectiveness of a selected treatment intervention. With the collection of data on a more frequent basis, this would allow the practitioner to make decisions regarding the effectiveness of a treatment intervention more efficiently. This is extremely important particularly when an ineffective treatment intervention is in place, and decisions need to be made regarding changes that need to be implemented regarding the consequences that are occurring with the selected treatment intervention. Additionally, frequent data collection measures are also important to have when a selected treatment intervention is based on evidence that is lower in quality or if the treatment intervention has been used in ineffective ways in the past.

Credible Data Collection

Interobserver agreement (IOA) data should be collected at least for a portion of the time that data are being collected because an individual data collector may fade away from the correct interpretation of definitions used within the treatment intervention. IOA refers to the degree to which two different observers agree about either the occurrence or non-occurrence of a targeted behavior (Wilczynski, 2017). In order to obtain a high IOA, operational definitions that are good as well as training for all observers in a consistent manner until each observer is able to rate the targeted behavior in the same manner should occur. An IOA of 80% or higher is standard for achieving data that are believable. If an IOA is less than 80%, then the practitioner should consider revising the data collection system as it may be too difficult to implement.

Data should continue to be collected by practitioners even in the maintenance phase of a selected treatment intervention. Additionally, generalization data should be collected to demonstrate that the selected treatment intervention is producing the same effects across environments, with different individuals, or with various materials. The data collected through these means helps to demonstrate the social validity of the treatment intervention (Wilczynski, 2017).

Single Subject Research Design

Single subject research designs are used to interpret the data that are collected in a meaningful and accurate way. Each research design should be discussed with stakeholders and relevant team members in a practical way. Without the understanding of why both data collection and single subject research designs are to be used, the stakeholders and relevant team members will have difficulty understanding their value and the need for investing extra time and effort into an intervention. There are several different single subject research designs that can be selected (Wilczynski, 2017):

Single Subject Research Design

Definition

AB Design

baseline and single intervention condition included in design

Alternating Treatments Design

two or more treatment conditions are alternated over and over

Multiple Baseline

baseline data are collected with treatment being implemented with one setting, one participant, or to one behavior and withheld from others until it can be introduced as a way of controlling for changes in responses

ABAB

repeated series of baseline and treatment intervention conditions

Changing Criterion

graduate steps from baseline to a defined goal that involves systematic changes in criterion levels of performance



A Handful of ABAB

Additional Sources of Data

A practitioner should take precautionary measures to ensure that the implementation of a treatment intervention does not alter over a period of time. Therefore, treatment fidelity should not be evaluated only once. Instead, it should be measured at different points throughout the intervention process. The level of fidelity that is required to affect change needed for a service recipient will differ depending on the treatment intervention selected and for each service recipient. When literature is reviewed, a standard of 80% has been utilized as most feel that this is a relatively high level of fidelity (Borelli et al., 2005). However, this percentage has not been based on data. Some situations may result in fidelity dropping below 80% and still resulting in change for the service recipient. On the other hand, some situations require fidelity to be well above 80% to affect meaningful change. Although there may be no evidence-based standard that is used within the field regarding treatment fidelity, a practitioner can still proceed forward. A practitioner should work to collect data on both treatment fidelity and the progress of the service recipient before any decisions are made. This way, decisions are able to be made based on data. If a service recipient is unable to make progress, then this may reveal that the treatment fidelity is too low, and a change should be made to improve consistency and accuracy of the implementation of the selected treatment intervention through additional training and oversight. On the other hand, if a service recipient is unable to make progress and the treatment fidelity is considerably high, then this may indicate to the practitioner that the selected treatment intervention is not feasible or effective in the way in which it is currently designed. Data should then be used to guide the practitioner in determining the best route to take and how to proceed moving forward.

Another source of data that can be used to monitor progress is through quality of adherence. Quality of adherence refers to how the essential characteristics of the

selected treatment intervention are implemented (Wilczynski, 2017). For example, if praise is a component of a selected treatment intervention that is to be used when a service recipient completes a task within the skill to be acquired, then the stakeholders should ensure that the praise delivered is effective. If praise is delivered using a monotone voice, this may be less effective or not effective at all in affecting a change in behavior. Therefore, it is important to integrate praise consistently and with enthusiasm. Quality of adherence data can be taken at the same time as treatment fidelity data.

Additionally, a practitioner should evaluate the implementation plan against what actually occurred within the environment. An implementation plan is a list of every step that should be completed in order for a treatment intervention to be implemented in an accurate way. If there are significant differences that occurred between an agreed upon implementation plan and that which occurred in the environment, then it may indicate to a practitioner that the selected treatment intervention is not feasible. It may also indicate that another treatment intervention may need to be selected. Ultimately, the discrepancy that occurred between the implementation plan and actual implementation may bring to light a discussion surrounding the barriers that are present and ways to resolve these concerns.

During the treatment intervention phase, the practitioner should ensure that data regarding client preference should be collected. This particular data collection should not only occur at the initial selection of the treatment intervention. Additionally, tolerability following the implementation of the treatment intervention should be evaluated. Tolerability refers to the extent that a service recipient endures adverse effects. One way of assessing tolerability is by evaluating the service recipient's affect and enthusiasm. Negative enthusiasm can be demonstrated by the service recipient attempting to leave the room or pushing items away. Neutral enthusiasm can be demonstrated by the service recipient

being fidgety and exhibiting moments of inattention. Positive enthusiasm can be demonstrated by the service recipient performing the requested task, attending to the materials, or laughing and smiling while completing the task. Affect and enthusiasm can be assessed even when the service recipient's communication skills are limited. These parameters on their own may not be enough to warrant a change to be made to a selected treatment intervention by a practitioner. However, it is important for the practitioner to take these items into consideration as they influence the rejection, adaptation, or retention of a selected treatment intervention. A treatment intervention that coincides with a slow change in the targeted behavior and high levels of negative enthusiasm may need to be adapted or discarded by the practitioner. Additionally, if there are two or more treatment interventions that are effective in similar ways, then it may be more beneficial to prioritize the treatment intervention that produces more positive affect and enthusiasm for the service recipient.

Another source of data that can be used to monitor progress is the level of satisfaction that a service recipient has with the treatment intervention. These data are often collected at the end of the implementation of a treatment intervention; however, this does not always have to be the situation. The level of satisfaction of a service recipient can be evaluated using whole or rank-ordering of the different components within the treatment intervention. This information may assist a practitioner with developing a more useful treatment intervention for the service recipient. The data that are collected regarding the level of satisfaction of a service recipient should be individualized based on the delineated goals of the treatment intervention. Oftentimes, attrition and nonattendance are clearly linked to the level of satisfaction that a service recipient has as well as the acceptability and feasibility of the treatment intervention. When a service recipient drops out from receiving a treatment intervention or they skip treatment sessions, this can indicate that the service recipient is unhappy with the selected treatment

intervention. On the other hand, a practitioner should not assume that a service recipient is happy with the services they are receiving just because the services recipient is always in attendance for their scheduled sessions. It is important for a practitioner to assess the reasons why a service recipient exhibits removal from a treatment intervention or nonattendance.

Practitioners should also evaluate the level of satisfaction that a stakeholder or relevant team member has regarding the selected treatment intervention. The data that are collected through these evaluations have implications for the acceptability, feasibility, usefulness, and quality of the treatment intervention (Wilczynski, 2017). Open-ended questions allow these individuals to determine areas of strength as well as concerns that may have not been predicted at the onset of the implementation of the treatment intervention.

A practitioner understands that the environment that they work to create will have a direct impact on the behavior of the service recipients for which they provide services to. In order to maximize the effects of selected treatment interventions, practitioners should collect and use data to make adaptations or changes to the treatment intervention when the level of satisfaction with the treatment intervention is considered low. There are several ways that a selected treatment intervention can be adapted if a service recipient or stakeholder find the treatment intervention to be intolerable (Wilczynski, 2017):

- Evaluate and change the difficulty of the task
- Strengthen the schedule of reinforcement
- Identify and integrate reinforcers that are more potent

A practitioner should always consider the level of satisfaction that is had by stakeholders and the service recipient regarding any treatment decision as the practitioner should ensure that treatment decisions are meaningful to them. By

doing this, it will help to increase the likelihood that the targeted outcomes will come to fruition.

Section 3 Personal Reflection

What are ways that you, as a practitioner, have had to adapt a selected treatment intervention in order to improve service recipient or stakeholder level of satisfaction?

Section 3 Key Words

AB design - baseline and single intervention condition included in design

ABAB design - repeated series of baseline and treatment intervention conditions

Alternating treatments design - two or more treatment conditions are alternated over and over

Changing criterion - graduate steps from baseline to a defined goal that involves systematic changes in criterion levels of performance

Continuous measurement - when all instances of behavior are accounted for by either recording each occurrence or deleting an occurrence

Discontinuous measurement - includes the recording of a sample of targeted behaviors or skills of concern

Implementation plan - a list of every step that should be completed in order for a treatment intervention to be implemented in an accurate way

Interobserver agreement (IOA) - refers to the degree to which two different observers agree about either the occurrence or non-occurrence of a targeted behavior

Multiple baseline - baseline data are collected with treatment being implemented with one setting, one participant, or to one behavior and withheld from others until it can be introduced as a way of controlling for changes in responses

Permanent products - include the recording of either real or concrete objects that demonstrate the integration of a targeted behavior or skills learned in everyday activities

Quality of adherence - refers to how the essential characteristics of the selected treatment intervention are implemented

Tolerability - refers to the extent that a service recipient endures adverse effects

Section 4: What are the Next Steps?

Retaining a Selected Treatment Intervention

A selected treatment intervention is retained when a practitioner determines that the treatment intervention is acceptable or feasible, and it produces results that are socially significant for the service recipient by demonstrating meaningful changes in the individual's quality of life. Based on the movement of the data, the practitioner should work to generate a plan to fade the selected treatment intervention. A treatment intervention may be able to be faded more quickly if results have been achieved and they are able to be sustained. The practitioner should work with the service recipient, stakeholders, and relevant team members to devise a plan to fade that is feasible. The plan to fade should also include the level of change in the targeted behavior that will have to occur in order for the treatment intervention to be implemented at the previous levels if results are not able to be sustained.

Adapting a Selected Treatment Intervention

After the selected treatment intervention has been implemented, data collected may indicate that a treatment intervention should contain adaptations based on the results that are anticipated. When adaptations need to be made, a practitioner will attempt to minimize these adaptations as much as possible. If greater adaptations are made, then additional resources and environmental supports may be needed. These greater adaptations may also lead to confusion for those implementing the treatment intervention and result in lower treatment fidelity. Therefore, it is important for a practitioner to minimize the adaptations needed for the selected treatment intervention.

Additionally, a practitioner may enter into a discussion regarding adaptations that need to be made to a selected treatment intervention that would result in the treatment intervention not answering the questions that have been initially proposed. When this situation occurs, the practitioner should work to explain their concerns and propose other viable treatment modifications. If this discussion does not result in a treatment intervention that is effective or acceptable to those involved, then the practitioner may discuss the possibility of rejecting the treatment intervention and considering other options.

Rejecting a Selected Treatment Intervention

When meaningful changes are not able to be made for the service recipient with a selected treatment intervention, a practitioner may need to make the decision to reject a treatment intervention. Additionally, a treatment intervention may also be rejected if the progress occurs at too slow of a rate, if resources required to implement the treatment intervention are too many, or if the treatment fidelity is unable to be maintained at a higher level. The rejection of a selected treatment intervention should be the decision of all members of the team. If it is determined

by the team to reject a treatment intervention, then the practitioner should return to step 1 of the EBP process and reevaluate any new information. An alternate treatment intervention can be evaluated relatively quickly at this time.

Section 4 Personal Reflection

Have you ever had to make an adaptation to a selected treatment intervention? If so, were you able to make minimal adaptations to ensure effective implementation?



References

- Bellg, A., Borelli, B., Resnick, B., Hecht, J., Minicucci, D. S., Ory, M., & Czajkowski, S. (2004). Enhancing treatment fidelity in health behavior change studies: Best practices and recommendations from the NIH Behavior Change Consortium. *Health Psychology, 23*(5), 443-451.
- Borelli, B., Sepinwall, D., Bellg, A. J., Breger, R., DeFrancesco, C., Sharp, D. L., ... Orwig, D. (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal of Consulting and Clinical Psychology, 73*, 852-860.
- Collier-Meek, M. A., Sanetti, L. M. H., & Boyle, A. M. (2015). Providing feasible implementation support: Direct training and implementation planning in consultation. *School Psychology Forum: Research in Practice, 10*(1), 106-119.
- Dababnah, S., & Parish, S. L. (2016). Feasibility of an empirically based program for parents of preschoolers with autism spectrum disorder. *Autism, 20*(1), 85-95.
- Elliott, S. N. (1988). Acceptability of behavioral treatments: Review of variables that influence treatment selection. *Professional Psychology: Research and Practice, 19*(1), 68-80.
- Slocum, T. A., Detrich, R., & Spencer, T. D. (2012). Evaluating the validity of systematic reviews to identify empirically supported treatments. *Education and Treatment of Children, 35*(2), 201-233.
- Wilczynski, S. M. (2017). *A practical guide to finding treatments that work for people with autism*. Academic Press.



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