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Behavior Management Across the Lifespan

Introduction

There are many factors that a therapist must work around when they present themselves within the therapeutic relationship. This includes fatigue, pain, endurance, and varying levels of motivation. But a patient's behavior is perhaps one of the most impactful of these factors, as someone's demeanor and actions are fundamental to their ability to engage in meaningful activities.

Patients may demonstrate inappropriate or unsuitable behaviors in nearly any practice setting. For this reason, therapists in all specialties must have a good grasp on how to manage behaviors that patients exhibit during their plan of care. In order to provide effective therapy, providers should be aware of what management strategies are most successful, evidence-based, and appropriate for patients based on their medical and emotional needs. Occupational therapists may also need to use aspects of the behavioral frame of reference during treatment. Behavior management may include minimizing, working around, or eliminating certain behaviors to improve participation.

Section 1: Background and OT's Role

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Behavior is defined as how someone presents themselves outwardly. As a result, a person's behavior is often directed toward others or perceived as so. However, a person can also direct their behaviors toward themselves, specifically in the case of self-injurious practices. Many times, someone's actions may be a response to certain internal triggers (emotions or past trauma) or external triggers (such as social situations, overstimulation, information processing difficulties, etc.). This often occurs when someone is acting out due to a sensory experience that is causing them distress or that they don't know how to properly process that information.

There is a lot of overlap in behavioral health, and the similar presentation of sensory and behavioral concerns is just one example of this in practice. Behavioral health and mental health are often confused for one another, since many people have come to use the terms interchangeably. There is actually a clear difference between the two fields. Behavioral health is actually a blanket term that describes the evaluation and treatment of anything that is associated with or impacted by a person's behaviors. This not only includes a person's physical health, but it also takes external factors such as environment and relationships into consideration. For example, if someone constantly picks at their

skin and gets an infected wound as a result of this, treatment of the infection and the skin picking itself would both fall under the category of behavioral health. A behavioral health provider might refer this patient to a general practitioner to dress the patient's wounds and give them antibiotics. The patient might also go to the hospital on their own with a fever, oozing wounds, and other symptoms of an infection.

In either instance, the treatment provided would fall under the category of behavioral health, as would education on the prevention of future infections through proper skin care. Some other examples of disorders that would be treated by behavioral health professionals include sex addiction, gambling disorders, substance use disorders, eating disorders, Attention-Deficit/Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), and more.

Mental health is one of the primary subcategories under behavioral health. Mental health hones in on internal factors that impact a person including unhealthy emotions, negative thought processes, and impaired cognitive functions. Personality disorders, anxiety disorders, posttraumatic stress disorder, psychotic disorders, and mood disorders (such as depression and Bipolar disorder) are all examples of conditions that mental health providers can treat.

Behavioral Health Theories

To discern the root cause of certain behaviors and minimize the impact that any potentially-disruptive behavior has on the treatment process, therapists must grasp the basics of behavior management and the theories that helped in its development.

This field looked very different when it was initially founded by B.F. Skinner in the 1930s. Skinner developed Operant Conditioning Theory, which posited that a person's behaviors can be conditioned by exposing them to a stimulus, then monitoring and reinforcing their response(s) accordingly. Present-day behavior therapists still use operant conditioning as the basis of their work, but operant conditioning has also extended into other areas. For example, the core of operant conditioning is at the heart of a more familiar modality called cognitive behavioral therapy (CBT). CBT requires a therapist to identify beliefs and behaviors that are negative or self-limiting and transform them into ones that are more positive and adaptive.

Another theory that plays a part in behavior therapy is Adams' Equity Theory of Motivation, which was developed by J. Stacey Adams in the 1960s. This theory states that people are more likely to be motivated for tasks, work, and other duties if they feel

they are being fairly rewarded for their efforts and contributions. This theory serves as an important consideration for therapists, since this information can help them structure activities based on what will encourage a patient the most. In some cases, patients can engage in conversations about what prompts them to do certain tasks. But therapists may need to observe and utilize their clinical judgment to identify motivators for patients with cognitive or communication deficits.

According to McLelland's Acquired Needs Theory, or McLelland's Human Motivation Theory, each person develops their needs based on experiences across the lifespan. These needs can then be used to motivate individuals, since people are constantly seeking out ways to get their needs met. Based on the Acquired Needs Theory, McClelland suggests each person has a need for power, achievement, and affiliation. Depending on the person, some of these needs may take a higher priority than others. Individuals who have a strong need for power may present as demanding and assertive with an emphasis on practicality over emotion. These people may also be heavily involved in certain tasks that allow them to exert or access power. Individuals who desire affiliation will want to sidestep rejection, be accepted by others, and feel an emotional connection with those around them. Someone who wants to feel achievement seeks intrinsic motivation by finishing a project or task, so they look for immediate feedback on work they do, prefer to have specific goals to strive for, and are comfortable taking on moderately risky challenges. These individuals may not display risk-taking behaviors in other areas of their lives, but they do in the realm of work and project-related tasks since these are of such a high value to them.

A similar theory is the Hierarchy of Needs, which was created by Abraham Maslow. He outlines the idea that all humans have five basic needs that are prioritized in varying degrees. In a visual depiction of the theory, these needs are presented in the form of a pyramid. Maslow suggests that needs at the bottom of the pyramid are most essential and must be fulfilled before the ones at the top of the pyramid are addressed. Someone's physiological needs – access to water and food, adequate sleep, shelter, clean air, clothing, and the desire/need to reproduce – come first and foremost, since these are integral to a person's survival. Next comes someone's safety needs, which includes personal property, access to resources, general safety, medical care and/or health needs being met, and gainful employment. After safety is a sense of connection and belonging, which comes along with healthy interactions with family, friends, and intimate partners. Self-esteem (respect, status, strength, free will, and recognition) is above this. Self-actualization is the final and uppermost level of the pyramid. Self-actualization is the awareness someone has of their abilities, talents, and full potential.

When someone has this realization, they can act in accordance with these skills in order to thrive in the present moment.

Social Learning Theory undoubtedly also plays a part in behavior modification. This theory was developed by Albert Bandura, who stated that individuals pick up on social behaviors by observing others engaging in them and eventually imitating those same behaviors. This theory was intended to serve as a newer, more refined alternative to Skinner's Operant Conditioning Theory. According to Social Learning Theory, someone can only learn the behaviors of others if they follow five steps. These steps include: (1) observing someone else's actions, (2) paying attention to them regularly, (3) retaining enough information about the other person's actions so they can eventually replicate them, (4) imitating (or reproducing) the behaviors as much as you can according to your physical abilities, and (5) exhibiting the motivation to continue engaging in the behavior. Despite the differences between Social Learning Theory and Operant Conditioning Theory, they both emphasize the importance of motivation. Bandura states that motivation (along with punishment and reinforcement, which help build or inhibit someone's motivation) is the most essential concept in this theory, since this is what dictates whether or not someone will engage in the behavior again. Motivation is also partially determined by someone's self-efficacy, since they may struggle to persevere if circumstances get too hard.

Key Concepts

Behavior modification in the realm of behavior therapy and the behavioral frame of reference is based on operant conditioning. Operant conditioning is a system of punishments and rewards that molds a person's engagement, values, beliefs, and feelings. As part of this system, punishments are intended to decrease problematic behaviors that a person exhibits and reinforcement aims to increase positive behaviors.

Stimuli are one of the central concepts within behavior modification and therapists must identify such stimuli in order to help individuals manage behaviors. A stimulus is defined as any event that elicits a behavioral response in a person. There are two types of stimuli: conditioned and unconditioned. An unconditioned stimulus is an event that triggers a raw, automatic response that has not been formed as a result of an external source. A conditioned stimulus, on the other hand, is a response that has been learned alongside an unconditioned stimulus. If a person develops a fear of hospitals after having a near-death experience in one, this is an example of a conditioned stimulus. If someone begins feeling hungry after smelling freshly-cooked food, this is an example of an

unconditioned stimulus since it is an innate response. This connection between behavioral responses and certain events is created through reinforcement.

Reinforcement

Reinforcement is defined as a consequence that strengthens or weakens the likelihood a preceding behavior will recur. There are two types of reinforcement: social reinforcement and automatic reinforcement. Social reinforcement is when someone receives feedback regarding their behavior from another person. There are two types of social reinforcement, both of which are put into place after a response.

One of the most important concepts to understand about reinforcement is that, pertaining to operant conditioning, negative and positive do not mean bad and good. Negative means something is being removed while positive means something is being added to the situation.

Social Reinforcement

Positive social reinforcement is the **addition of an enjoyable stimulus** after a certain behavior to **increase** the likelihood that behavior will occur again. Since positive social reinforcement is intended to encourage a behavior to happen again, this is often used as a response to a positive behavior. Positive social reinforcement is also sometimes termed additive, since a certain stimulus is being added to the patient's environment. An example of positive social reinforcement is a therapist telling a child they did a good job after they demonstrated socially-appropriate behavior when meeting a stranger for the first time. This verbal praise is intended to motivate the child to replicate this behavior in the future.

Negative social reinforcement involves the **removal of an unenjoyable stimulus** following a behavior to **increase** the chances of the behavior happening again. Because negative social reinforcement is intended to encourage a behavior to happen again, this is often used as a response to a positive behavior. Negative social reinforcement is a concept that is often confused with punishment (disciplining, yelling, etc.), but a better example is a child cleaning his room to avoid getting continual reminders from his mother. This scenario teaches the child that if he continues to clean his room in the future, he will not get yelled at by his mother.

Both types of social reinforcement operate on the basis of certain details, including timing, frequency, scheduling, and content of the feedback. Based on the patient's

needs, a therapist may choose to implement a fixed interval schedule of reinforcement or variable interval schedule of reinforcement. Variable schedules entail providing reinforcement at random times while fixed schedules offer reinforcement at specific times, such as every 5 minutes or every 10 minutes. In the event that either type of reinforcement stops working, therapists will use extinction to discontinue the method and come up with another idea. Based on the patient

Automatic Reinforcement

The second type of reinforcement is automatic, meaning certain behaviors are encouraged or discouraged without any involvement from other people. Just as with social reinforcement, automatic reinforcement can be broken down into positive and negative.

Automatic positive reinforcement is when someone experiences a **favorable outcome or receives something** they want as a result of **their actions**. There are many examples of automatic positive reinforcement that people experience throughout an average day. When someone wants to check their email, they will likely sit down at their desk and turn their computer on. When their computer turns on, they are then able to check their email and their task is complete. Other examples include watching TV shows as a source of entertainment, putting on makeup in order to look good, and adding spices to their food because they want it to taste a certain way.

Automatic negative reinforcement is defined as an **action someone performs to remove an undesirable stimulus** or behavior. Again, there are many mundane examples of this during the course of a typical day. Some examples include taking out the trash to avoid a smelly house, wiping down the table to prevent water and crumbs from getting on their belongings, soaking the dishes so food does not get crusted on, and putting on a bandaid so an open wound does not sting.

It is important to note that if someone engages in a certain behavior because it is personally important to them, this is considered automatic reinforcement. This concept is especially relevant to the work of occupational therapists, since it can help providers learn what motivates each person to engage in the activities they do. While some behaviors are initially classified as automatically-reinforced behaviors, it is possible for them to become socially-reinforced if a person receives a desirable response from others that they wish to replicate. For example, if someone puts on makeup each day to feel good about themselves, this is considered automatic positive reinforcement. After going

out, they may get compliments on their makeup from several individuals. If these compliments are impactful enough that they become the person's motivation for wearing makeup, this behavior is then socially reinforced.

Punishment

Positive punishment is reactionary in that it involves putting unsavory consequences in place after someone engages in an undesirable behavior. This aims to decrease any future occurrences of this behavior. While it seems like the opposite would be true, standard methods of discipline such as scolding, chasing, spanking, and yelling fall under the category of positive punishment because they are being added to the situation. Other examples of positive punishment include assigning students extra homework when they miss deadlines, making a child do more chores at home when they don't follow the rules, mandating workplace trainings and seminars for everyone in response to policy violations, and making a teen's curfew even earlier when they come home past the agreed-upon time. Overcorrection is another concept related to positive punishment. Overcorrection occurs when a therapist requires that someone makes the environment as good (or better) than it was before the undesired behavior. An example of positive punishment is a child who intentionally breaks an item in their home and their mother says they need to clean it up before they go to bed. If a parent were to overcorrect in this scenario, they would not only make the child clean up the mess, but they would also take away their allowance for however long they needed to pay for a new item. There are various schools of thought as to how ethical certain types of positive punishment are. Discussion has especially centered around traditional disciplinary measures such as spanking, which are quickly falling out of favor for more empathetic approaches.

Negative punishment, on the other hand, involves removing certain desirable items or privileges as a consequence of undesirable behavior. This aims to lower the likelihood that the undesirable behavior will happen again. Some examples of negative punishment include taking away a student's phone after they are caught texting during class, not allowing a toddler to have screen time if they are tantruming, telling a teen they cannot have friends over if they don't clean their room, and avoiding eye contact with a toddler who is yelling at you to pick them up. Each of these examples involves taking away a privilege that is of value, while the last example involves a parent withholding attention from a toddler who thrives off it. One of the most prevalent forms of negative punishment is response cost, which refers to the removal of certain reinforcement (that was present due to good behavior) when a person exhibits problematic behavior.

Research shows that both types of punishment are highly effective if they are consistent (take place on a regular basis), contingent (are directly related to the behavior in question), and contiguous (occur immediately after the undesirable behavior).

Other Behavior Therapy Terminology

There is a range of other terminology related to behavior therapy that OTs should understand. While occupational therapists may not need to use this verbiage in their own documentation, knowing this language allows OTs to understand progress notes and other communications from behavior therapists and apply this information to their own practice. Some of these terms include:

- Antecedent: The event, stimulus, or situation that leads up to a behavioral response; the antecedent may or may not be obvious, in which case a therapist would perform an antecedent analysis that can shed light on a person's triggers, likes, dislikes, sensitivities, and more
    - If a patient begins yelling and hitting other people only after hearing an amplified doorbell, that sound is considered the antecedent
- Antecedent-Behavior-Consequence (ABC) model: A tool that helps therapists monitor extrinsic and intrinsic factors to determine what triggers precipitate a patient's behaviors; this model can benefit any patient that needs to focus on changing a problem behavior
- Antecedent-Belief-Consequence (ABC) model: This similar, but more advanced tool is used as part of CBT because it focuses on the cognitive processes that contribute to a patient's beliefs and, therefore, their behaviors; in order to use this adapted model, the patient must play an active role in the analysis, which requires them to possess critical thinking skills and self-awareness; for this reason, this type of ABC model is intended for higher-functioning patients who are also good candidates for talk therapy
- Avoidance contingency: Any response someone engages in that gets in the way of a stimulus occurring
    - An example of an avoidance contingency is the behavior of a child who does not like riding the bus; they see the bus pull up in front of their house and they hide under the bed until the bus leaves without them

- Backward chaining: A bottom-up approach to learning that involves starting from the last step of a task and working toward the first
    - When teaching a patient how to put their shirt on, a therapist may first show them how to take it off
- Balanced token economy: A program that uses a medium of exchange to provide behavioral reinforcement; this offers consistent feedback for patients with problematic behaviors
    - Mediums of exchange may include points, stickers, poker chips, tallies, toys, and other nominal placeholders
    - When patients exchange these tokens for a reward of their choice (which must be desirable in order to be effective), this is called a backup reinforcer
    - An example of a balanced token economy is patients in a long-term mental health facility who earn a certain number of points by exhibiting positive social behaviors and going to group therapy; these points can then be redeemed in a marketplace that has snacks, clothing, books, and toys
- Behavior cusp: A behavioral change that someone experiences after they gain a certain skill or behavior; this change typically comes as a result of new opportunities and increased exploration
    - An example of this is learning to read, which encourages children to read signs, labels, and (gradually) more complex books
- Behavior shaping: Setting and working toward consecutive objectives to help a patient develop a new behavior
- Cognitive dissonance: When a person's beliefs and feelings don't align with their behaviors
    - An example of cognitive dissonance is when someone knows they need to exercise to remain healthy, but does not make the time for it
- Confounding variable: An additional variable that a therapist has not accounted for; this term is frequently used in the context of research, but it also applies to clinical situations

    - If a therapist is monitoring a patient's focus after they receive a stimulant medication, a confounding variable might be the patient suddenly coming down with the stomach bug and having poor concentration due to symptoms such as fatigue and fever

- Contingency-shaped behavior: Any behavior that is the direct result of interaction with a reinforcer or punishment

    - A type of contingency-shaped behavior is a classmate telling their peer not to throw blocks or they will get in trouble with the teacher, but the peer does it anyway and gets the teacher's punishment

- Discriminative stimulus: A stimulus that a patient is conditioned to recognize is correct and will lead to reinforcement

    - An example of discriminative stimulus is a patient identifying the difference between their toothbrush and hairbrush based on how each one feels when they grasp the handle

- Extrinsic reward: An external, often tangible benefit that comes as a result of task completion

    - Extrinsic rewards for patients can be praise, respect from others, and tangible items such as toys or gadgets

- Generalization: Being able to take a learned skill or concept and apply it in a different setting or situation they have not used it before; this is also known as carryover

    - A patient is learning to rehearse conversations about asking for help with their therapist at the clinic; if the patient independently recruits their mother to practice this conversation before asking their sibling for help at home, this is considered generalization

- Intrinsic reward: A psychological benefit of completing a task, project, or job

    - The positive feelings a person reaps from the work they do – including pride, autonomy, mastery, growth, and enjoyment – are an example of intrinsic rewards

- Nonaversive strategy: Reactionary techniques that are not unwanted by the patient

    - If a patient strongly dislikes being in timeout as a result of undesirable behavior, a therapist might use a nonaversive strategy such as taking away a preferred toy for a period of time or giving the patient additional chores to do; this utilizes a different approach but still puts a consequence in place for poor behavior

- Person-environment fit theory: A concept that states people intrinsically want to find environments they fit into well
    - An example of person-environment fit is a patient who prefers to work on handwriting during therapy if they are good at that skill and frequently journal by hand outside of sessions
- Positive Behavioral Interventions and Supports (PBIS): A three-tiered framework used to facilitate the academic, emotional, mental, behavioral, and social health of students; this evidence-based framework is used in many school systems to support student development
    - PBIS tiers include universal/primary prevention, targeted/secondary prevention, and intensive/tertiary prevention
- Probing: A therapist measuring a patient's abilities for a certain skill; this is observational and does not usually involve formal testing or reevaluation, rather it takes place sporadically throughout sessions
    - An example of probing is when a therapist records that a patient makes eye contact during conversation in 8 out of 10 trials
- Prompt dependent: When a patient becomes overly reliant on another person (therapist, teacher, parent) to do something for them or tell them how to complete a task
- Qualitative overload: When a patient does not possess the proper skills or mastery level to complete a task
    - If a patient who is actively hallucinating is asked to sit through a 45-minute group therapy session without leaving the room, this is an example of qualitative overload
- Quantitative overload: When there are too many task demands for a patient to complete in a certain period of time

    - An example of quantitative overload is if a patient with poor motor coordination is asked to shuffle a deck of cards 10 times in 5 minutes

- Reciprocal causation: The impact that two or more actions have on one another at the same time

    - An example of reciprocal causation is a patient who does not like going to work so he refuses to follow the rules and neglects to do his job; this causes his coworkers and supervisor to dislike him, which creates a negative environment that makes him dislike going to work even more

- Reinforcement sampling: Offering a patient a brief preview of something relevant and desirable that can serve as a token for good behavior; this is intended to improve a patient's motivation for that token

    - Reinforcement sampling might involve letting a patient see the product page for a stuffed animal they can earn or watching one scene of a movie they can get if they demonstrate desirable behavior

- Stimulus satiation: When a stimulus is repeated so often that a patient needs more of it to elicit a reaction and, therefore, it becomes less desirable to them

    - Someone begins applying a dime-sized amount of cortisone cream to a muscle sprain and the pain returns twofold once it wears off; if they choose to increase their dosage to a nickel-sized amount and then a quarter-sized amount before discontinuing the cream in lieu of another method to better relieve their pain, this is called stimulus satiation

- Tacting: The act of labeling situations, behaviors, or items; this can range from naming simple, recognizable items to complex labeling with phrases and sometimes even full sentences; tacting is intended to increase someone's ability to communicate

    - An example of tacting is a patient reciting the steps of a visual schedule based on the images present

- Task conflict: When two parties disagree on how a certain task should be completed; if task conflicts between the same parties are not resolved, they can turn into relationship conflict

- One instance of task conflict is a therapist telling a patient that they need to put toothpaste on their toothbrush in order to brush their teeth while the patient insists they must squeeze the toothpaste in their mouth instead

OT Scope

An OTs role in behavior management is two-fold. A plan of care that incorporates behavior management may vary depending on how harmful or limiting a patient's behaviors are. There are some instances where an OT's primary aim is to minimize the impact certain behaviors have on a plan of care that focuses on other skill areas, such as strengthening, endurance, and range of motion. Therapists might develop goals with criteria and strategies that indirectly address these behaviors. Conversely, some patients demonstrate behaviors that are largely limiting and impact their ability to function. In these cases, an OT plan of care may focus more directly on such behaviors. A plan of care like this often consists of activity-based interventions that decrease problematic actions and enhance positive socialization. Therapists will usually do this by creating behavior-focused goals and structuring treatment using a behavioral frame of reference.

The behavioral frame of reference focuses on the concept of behavior modification as a means to increase a patient's adaptive responses and lessen their risk of developing maladaptive strategies. Therapists can decide if a patient is appropriate for this frame of reference after evaluating them. This will not only help therapists determine a patient's baseline, but it will also give them information as to the root cause of the patient's behaviors. Standardized testing, an occupational profile, and other evaluation measures will help therapists determine if a patient is acting out due to a disregard for rules, societal norms, and other standards or because of sensory processing difficulties. If a therapist rules out sensory concerns and determines the patient is a good fit for treatment based on the behavioral frame of reference, they can select appropriate reinforcers and develop a use schedule to incorporate into the plan of care.

Section 1 Personal Reflection

Based on what you know about operant conditioning and the original behavior theory, what important components may be missing from an occupational therapy perspective?

Section 1 Key Words

Adaptive behavior - A learned skill and/or behavior that allows someone to successfully navigate their environment and mesh well with others

Automatic reinforcement - Certain behaviors that are elicited or discouraged independent of other people; positive automatic reinforcement is when someone has a good outcome or gets something enjoyable from their actions; negative automatic reinforcement is a behavior someone engages in to try and remove an undesirable stimulus or behavior

Negative punishment - Removing certain privileges or desirable items as a result of undesirable behavior to lower the chances of the bad behavior happening again

Positive punishment - Putting unsavory consequences in place after someone engages in an undesirable behavior to decrease the likelihood of it happening again

Social reinforcement - When someone receives feedback about their actions from another person; positive social reinforcement is the addition of a desirable stimulus after a good behavior to encourage it to happen again; negative social reinforcement involves removing an unenjoyable stimulus to increase someone's chances of demonstrating a good behavior again

Section 2: Behavior Modification Types & Professionals

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Depending on the person and the behaviors they exhibit, therapists may need to use a specialized type of behavior therapy. Other individuals may benefit more from behavioral strategies and techniques integrated into treatment more discreetly. In order for occupational therapists to connect patients with what they most need, they should know the difference between each type of behavior therapy and understand what behavioral strategies are available.

The main types of behavior therapy are cognitive behavior therapy, cognitive behavioral play therapy, dialectical behavior therapy, and acceptance and commitment therapy. Cognitive behavioral therapy, also known as CBT, is goal-oriented talk therapy that involves identifying negative beliefs and thought patterns along with the impact they have on someone's behaviors. CBT allows someone to reshape their mindset in a

healthier, more adaptive way. CBT is an evidence-based approach that can assist individuals with substance use disorders, depression, anxiety, eating disorders, and other mental health concerns.

Cognitive behavioral play therapy (CBPT) is a type of cognitive behavioral therapy that caters more to children who have problematic behaviors. This is a blended modality that uses some of the verbal aspects of cognitive behavioral therapy along with the interactive nature of play therapy. CBPT is often used in school-based settings with children who have phobias, generalized anxiety, expressive communication deficits, and a history of trauma. CBPT involves behavioral interventions, which focus on activity changes, and cognitive interventions that emphasize changes in thinking. Traditional play therapy involves the therapist serving as a neutral observer, but CBPT is much more task-oriented in that the therapist teaches skills, offers praise, provides rewards, and educates the child.

Dialectical behavior therapy (DBT) is another type of talk therapy that allows individuals to productively work through strong, uncomfortable emotions. Dialectical behavior therapy is a form of CBT that has been modified to place more emphasis on emotion regulation, which is a common cause of problematic behaviors. DBT is chiefly used to treat individuals with borderline personality disorder (BPD), but it can also assist those living with posttraumatic stress disorder (PTSD), eating disorders, anxiety disorders, depression, suicidal thoughts, and self-harm behaviors. DBT places a strong focus on teaching individuals four central skills, including distress tolerance, mindfulness, interpersonal effectiveness, and emotion regulation.

Acceptance and commitment therapy (ACT) is a form of behavior therapy that focuses on mindfulness as a way to encourage individuals to fully embrace all of life – including happy and sad times. ACT is based on relational frame theory, which suggests that innate skills such as logic are not always effective at helping people cope with emotional discomfort. ACT encourages people to work through psychological pain by changing their mindset and learning to live healthier. Some populations that can find relief from ACT include those with psychosis, anxiety, eating disorders, substance use disorder, depression, and chronic pain. By teaching people to accept the things in life they cannot change and commit to making positive changes in the areas they have control over, individuals will be able to heal.

Professionals Involved in Behavior Modification

Depending on the discipline, various professionals can assist patients with behavior management and modification. Most of these professionals work in outpatient clinics, schools, and hospitals, but they can also be found in other places that treat individuals who have problematic behaviors.

Behavior Therapy Professionals

Behavior therapy professionals typically come to mind first, since their title aligns best with the field itself. Behavior therapists can be likened to rehabilitation technicians, since the requirement for this title is a high school diploma. Since behavior therapists do not have specialized training, their role is to assist their supervisors (BCBAs) with basic tasks such as gathering materials and preparing treatment spaces for sessions.

Registered behavior technicians (RBTs) and board-certified assistant behavior analysts (BCaBAs) are providers who can both treat patients under the supervision of a board-certified behavior analyst, or BCBA. In order to become an RBT, someone must complete a 40-hour professional certification. RBTs must also pass a competency exam in order to implement treatments set forth in a plan of care created by a BCBA. BCaBAs have a Bachelor in Behavior Analysis, which makes them qualified to provide slightly higher-level treatments than an RBT can. Both of these professionals provide their own treatments and report back to their supervising BCBA in the same way an occupational therapy assistant (COTA) does to a registered occupational therapist (OTR).

BCBAs can provide direct or indirect (consultative) behavior therapy treatment without any restrictions. These professionals hold a Master of Behavior Analysis, so their training is similar to that of an entry-level OTR with a master's degree.

Licensed Mental Health Counselor (LMHC)

Individuals who have the title LMHC have the ability to complete psychiatric assessments, diagnose mental health conditions, and treat someone for concerns related to mental health. Most LMHCs work in traditional mental health settings such as residential facilities and outpatient clinics where they treat individuals with ongoing mental illness. Individuals with this title will have a Master's in Clinical Mental Health and have completed at least one year of clinical rotations. Depending on the state, the exact scope of practice for an LMHC will vary. At times, an LMHC's role may even overlap with that of a licensed professional counselor (LPC).

Licensed Professional Counselor (LPC)

LPCs can also work with individuals who have diagnosable mental health conditions, but they more commonly work in specialties such as marriage and family therapy, career counseling, academic guidance, and other similar areas. For this reason, patients may see LPCs on an individual basis in outpatient therapy centers, but these professionals frequently offer other modes of therapy such as consultations and group treatment.

LPCs must have at least a Master's in Clinical Mental Health to sit for their competency exam, but some individuals who choose to pursue their certification hold a Doctorate in Clinical Mental Health. Regardless of what educational path they choose, they are also required to complete clinical rotations.

Psychiatrist

Psychiatrists are doctors who provide medical treatment to patients with mental health concerns. They may be a medical doctor (MD) or a doctor of osteopathic medicine (DO). They complete four years of medical school along with four or more years of clinical residencies. Psychiatrists are qualified to diagnose and treat mental health conditions or substance use disorders. The main difference between a psychiatrist and other professionals we discuss in this section is that they can prescribe medication for a range of emotional and behavioral concerns. Psychiatrists may be found in outpatient clinics or hospitals.

Psychologist

Psychologists hold doctorate degrees but they are not considered doctors and do not attend medical school. Psychologists attend graduate school for four to seven years, depending on their specialty. There are some states that allow psychologists to prescribe medication, but this is not the norm. Psychologists can diagnose and treat mental health concerns in outpatient clinics, hospitals, and schools. They do not typically work with individuals recovering from substance use disorders but, when they do, it is typically in the recovery phase (long-term) and not the acute phase. This is because many of these individuals living with substance use disorder need oversight from psychiatrists for the medical detoxification process. Psychologists can help this population change certain beliefs that lead up to harmful behaviors such as substance use or overuse.

Social worker

Social workers can be found in a variety of settings such as outpatient clinics, hospitals, schools, skilled nursing facilities, and more. This profession is quite versatile in that they often assume case management duties such as discharge planning and aftercare arrangements. However, what most people don't know is that they're well-qualified to provide mental health counseling to individuals and groups. They can diagnose and treat mental health conditions from both a preventive and rehabilitative lens, but they cannot prescribe medications. Social workers may provide preventive strategies to address problematic behaviors, but they can also instruct patients in strategies and consequences that will help them avoid maladaptive behaviors.

Speech-language pathologist (SLP)

SLPs primarily address feeding and swallowing concerns along with communication deficits, but there are many instances where impaired communication can lead a patient to demonstrate problematic behaviors. For this reason, SLPs can offer strategies to assist with receptive and expressive communication along with undesirable behaviors. Strategies may include scheduling, rewards, visual modeling, timed tasks, and learning targets. SLPs possess a Master's degree in Speech and Language Pathology and have completed clinical residencies in their field. They can be found in schools, outpatient clinics, hospitals, skilled nursing facilities, and more.

Intersection of OT and Behavioral Health Professionals

The roots of our profession is in behavioral health, so it stands to reason that occupational therapists have a large impact to make in the realm of behavior management. There are plenty of opportunities for occupational therapists to collaborate with behavioral health professionals, not only to reinforce healthy, adaptive behaviors, but also to identify personally motivating activities and goals. This may involve helping patients organize, plan, and schedule certain activities that will help them remain compliant with recommendations from other professionals. But this can also include situations such as performing co-treatments with speech-language pathologists and jointly leading group therapy sessions with mental health therapists and counselors.

Section 2 Personal Reflection

How might an occupational therapist assist these other professionals in behavior modification?

Section 2 Key Words

Distress tolerance - Managing psychological discomfort that results from stressors in an attempt to rebalance emotions

Emotion regulation - The control someone has over all of the emotions they experience

Interpersonal effectiveness - The ability to establish and maintain relationships with other people

Mindfulness - Living in the present moment with awareness of our current environment, behavior, and emotions

Section 3: Behavior Modification Techniques

16,17,18,19,20,21,22,23,24,25

The exact methods that a professional uses to help patients modify their behaviors will vary depending on their discipline. Interventions such as medication administration cannot be provided by OTs, SLPs, and most other therapists and must be given by a doctor. However, most professionals can use a range of behavior modification techniques depending on the type and severity of behaviors their patients demonstrate.

Active listening is a simple behavior management technique that allows someone to demonstrate they are engaged in what another person is saying. Active listening is a great way to verbally reassure someone who is expressing frustration or other uncomfortable emotions. For this reason, it especially helps therapists build rapport and trust with their patients by better understanding what they are going through. Active listening is also an effective way to defuse situations that may lead to conflict. In order to engage in active listening, therapists need to:

- Give all of their attention the person who is talking
- Use verbal and non-verbal communication to demonstrate they are listening

- Take a nonjudgmental stance
- Paraphrase before giving feedback to confirm what they are hearing
- Respond respectfully, honestly, and appropriately

While active listening can be beneficial for people who are mildly upset or frustrated, it's not always the best response to anger. This type of difficult behavior responds best to **aggression control techniques**. Many of these techniques have a CBT basis. For example, cognitive restructuring is the primary concept within cognitive behavioral therapy that changes negative thinking patterns into positive ones. This can help address someone's anger at the source. Behavioral rehearsal, which is commonly used during CBT, is a type of role playing that encourages people to think about what they will say before they say it. Therapists can teach people with a lot of anger to communicate in an assertive way that helps avoid conflict but gets their point across. Communication to resolve anger should focus on solutions while using "I" statement to express emotions. Anger is typically an indirect emotion that arises when other emotions are not identified and managed. For example, anger often stems from helplessness or a loss of control, so addressing those feelings can help minimize the frequency and severity of anger. An effective anger management technique is called competing response training, which involves identifying a habit (such as letting emotional anger progress to physical anger), increasing your awareness of when this habit occurs, and choosing an alternative to replace it.

Other aggression control techniques, such as progressive muscle relaxation, exercise, humor, guided imagery, and deep breathing, focus on relaxation. While some of these are evidence-based strategies for dealing with stress and anxiety, they are not typically recommended for anger since they divert the emotion elsewhere rather than managing it directly.

Creating an alter ego is another approach that can help someone better live their life apart from the expectations and opinions of others. This strategy can be effective for people with low confidence, anxiety, and anyone who has trouble creatively and freely expressing themselves. As patients step back from their own lives and create their alter ego, this can give them a renewed perspective regarding their own goals, dreams, fears, weaknesses, strengths, and more. Each of these aspects can then be used in therapy to help them better manage their behaviors and work on certain skills. Creating an alter ego can take various forms depending on the patient's needs. Therapists may lead patients in creating a vision board based on their alter ego's life or drawing a picture of

how they look. Some patients may prefer to write or tell a story about their alter ego and their goals.

Apology training is a technique that therapists may often use with individuals who lack social awareness and empathy. This often prevents such patients from knowing what behaviors warrant an apology and how to execute this apology. Therapists can teach patients about self-awareness so they can reflect on the way their actions have impacted others. Therapists can then use behavioral rehearsal to practice taking responsibility for their actions, listening to the other person's response, and incorporating that feedback accordingly.

Assertiveness training is a behavioral strategy and type of communication training that is often taught in conjunction with anger management techniques. Assertiveness training focuses on clearly, honestly, and directly expressing yourself in a way that shows respect for the person you are interacting with. Some populations that benefit from assertiveness training include those with social anxiety, depression, underlying anger, or concerns related to self-esteem.

Aversion therapy is a strategy used to help someone stop engaging in an unhealthy or unproductive habit by connecting (or pairing) it with an unpleasant stimulus. This then causes an unpleasant emotional and/or physical association that deters someone from engaging in the problematic behavior. Aversion therapy is commonly used by counselors and therapists in treating patients who have substance use disorders. But this method may also be used with individuals looking to make other changes such as quitting smoking, losing weight, stopping nail-biting, and more. This method has been proven effective for these populations and is largely accepted by behavior therapists and mental health counselors. However, some therapists find it unethical since patients who have active substance use disorders may not be able to fully consent to such treatment.

Behavioral self-management refers to the way in which someone changes their own behavior. This includes regulating awareness of external cues, remaining mindful of one's own behaviors and cognitive processes, and following through with consequences of behaviors. With behavioral self-management, an individual is in total control of the change they experience. This is most often the long-term goal of therapy for many individuals with intact cognition and it is frequently used in conjunction with skills training.

A **chemical restraint** is defined as any medication that is not used to treat medical symptoms and instead serves as a way to avoid, prevent, or manage dangerous and/or

violent behavior. Chemical restraints operate by sedating someone and limiting their ability or desire to move. As mentioned before, medication provision is not under the scope of practice for most therapists, so this is usually only an option in settings such as acute psychiatric units in hospitals. This is also not recommended as a first-line, long-term treatment for patients with difficult behaviors. Chemical restraints are most appropriate for someone experiencing acute distress who poses a risk to themselves or others and does not respond to behavior management techniques such as verbal deescalation. Some examples of fast-acting chemical restraints are benzodiazepines, atypical or typical antipsychotics, and anxiolytics, while antidepressants typically take slightly longer to take effect.

Covert modeling, also referred to as covert reinforcement, is when a patient envisions a situation where they behave as their role model would and receive positive reinforcement for this behavior. A therapist using covert modeling might lead a patient in imagining the initial situation, writing out problem behaviors and comparing them to desired behaviors, imagining what those behaviors would look like within the scenario, role-playing, developing appropriate coping strategies to use, and finally performing the desirable behavior in context.

Covert sensitization and **systematic desensitization** are often used in conjunction with one another. Covert sensitization is the precursor, which involves leading a patient through visualizing an uncomfortable stimulus before encountering it in real life. Once a patient makes progress with this training, the therapist moves to an upgraded method called systematic desensitization that involves guiding a patient through relaxation strategies while they are exposed to uncomfortable stimuli in real-time. These relaxation techniques may include guided imagery, progressive muscle relaxation, yoga, and deep breathing, which all aim to minimize the impact of the stimulus that is causing distress or anxiety. As a patient gets more comfortable with the uncomfortable stimulus, the therapist will gradually increase the time and start the process over again. Covert and systematic desensitization are both commonly used with individuals who have phobias and are also effective for social anxiety, PTSD, and obsessive compulsive disorder (OCD).

Discrete trial training (DTT) is a technique that involves breaking any skill into smaller parts. This not only makes the skill easier to learn, but it allows therapists to see what specific aspect of the task a patient is struggling with. DTT consists of five main components:

- An initial instruction

- Verbal, visual, or tactile cue from therapist to encourage the right response
- The patient's response
- A consequence related to the accuracy of the response; positive reinforcement for a correct answer and negative
- A slight break before the next trial begins

Following this order of events, an example might be a therapist asking their patient to hop on one foot, then demonstrating how to hop on one foot. The patient then responds by hopping on one foot for a short time and the therapist reinforces this behavior by giving the patient a thumbs up and placing a check mark next to their name on the whiteboard. The therapist tells the patient to sit and rest for one minute before having them stand up and complete a similar task. DTT is especially effective with individuals who have ASD, but it has a variety of applications and can benefit anyone who is in the process of learning a new skill or behavior.

Picture Exchange Communication System (PECS) is a type of augmentative and alternative communication (AAC) that is commonly used by individuals who are minimally verbal. PECS involves the use of picture cards, either in print or digital format, to express their needs and make requests.

Play therapy can be used as a form of social modeling to teach children appropriate play behaviors. Play therapy is a distinct discipline, but aspects of play therapy can be used to assist with behavior modification. Therapists commonly encourage parallel play in children between 18 months and around 3 years old so they can observe others and then learn to play in the same way. Therapists and other professionals can also assist children between the ages of 4 and 5 with cooperative play, which involves children interacting with others as they play together. Play therapy is helpful for children who have experienced trauma and who have delays in adaptive skills, social interaction, and/or fine or gross motor development.

Positive programming is a type of strategy that is embedded into educational programming to allow for behavior change. Positive programming uses a gradual approach that begins with a functional analysis and proceeds to adjust consequences, stimuli, and other factors. Such a strategy is intended to facilitate skill development and offer systematic instruction in an attempt to improve social integration.

The Premack Principle is a strategy that helps therapists encourage compliance in their patients. This principle operates using the 'first/then' contingency, meaning the chances

of the therapist-selected task, activity, or behavior in the 'first' category occurring are much higher if the item in the 'then' category is a desirable reward. This is also sometimes structured as an 'if/then' contingency. An example of this is a teacher telling their student, "If you finish hanging your coat up and putting your backpack away neatly, then you can be the first in line for a snack." The child is likely motivated by snacktime, so they are more likely to comply with the first set of instructions.

A psychological (or behavioral) contract is a personalized agreement that is written out and put into place in order to help manage certain problematic behaviors. Behavioral contracts are intended to hold someone accountable for their actions, set limits, build healthier relationships, and motivate individuals for positive change. It is common to see behavioral contracts in place in the classroom (as part of a child's individualized education plan, or IEP) but they can also be used in acute psychiatric units and outpatient clinics. Behavioral contracts must identify what negative behavior is being monitored, what positive behaviors are expected of a person, and who can support them in implementing these behaviors. These contracts must be specific, since they are intended to outline what a person must do and how they must behave in order to meet certain standards in accordance with an outside party (hospital, therapist, group treatment setting, etc.).

Role playing is a technique we've mentioned already, as it is commonly used in conjunction with other behavior modification methods. Role playing involves planning and practicing a conversation (often one on a sensitive or uncomfortable topic) with someone before speaking with the person who is actually involved in the situation. Depending on the purpose of the exercise, a therapist may ask someone to change their behavior to pretend they are the "other" person in a conversation. This helps someone experience a different perspective, use more critical thinking, and exercise empathy. In general, role playing can ease anxiety surrounding the topic and make it easier for someone to express how they feel. Role playing is most commonly used with behavioral rehearsal and often has a strong part in social skills training.

Self-control training involves teaching someone to set a goal, plan it out, execute it, and avoid any external distractions. Self-control is a larger skill that ties into other behavioral concepts, so a therapist must address assertion, fulfillment, and self-preservation in order to teach someone self-control. Depending on the person, it may be most important to target self-control in one or more of the following areas: emotion, impulses, focus, and physical activity. As with other concepts in behavior modification, it

is important for someone to choose a personally meaningful goal so they are motivated to exercise discipline in the process of attaining it.

Timeout is a concept many parents are familiar with, as it involves removing the person from their immediate environment (e.g. playroom, classroom, etc.) after they exhibit an undesirable behavior. Timeout is a form of positive punishment, since it involves a break from the typical reinforcement schedule. Research supports the effectiveness of timeout as a way to boost compliance, decrease the occurrence of aggression, and generalize skills across various contexts.

Section 3 Personal Reflection

How can an occupational therapist use the Premack Principle to structure sessions for an adult with severe Autism Spectrum Disorder?

Section 3 Key Words

Behavioral rehearsal - A type of role playing that encourages people to think about what they will say before they say it; this is commonly used during CBT

Deep breathing - A type of relaxation strategy that involves taking deep, slow breaths to relieve anxiety, manage emotions, and improve blood flow

First-line treatment - The first treatment given for a symptom or health condition; this is generally the most effective treatment for the issue at hand, but will vary depending on the provider and the patient

Guided imagery - The act of visualizing calm, relaxing scenery to ease anxiety and manage difficult emotions

Individualized Education Plan (IEP) - A document that entitles children with disabilities to certain services, accommodations, and treatments within a school setting to improve their academic performance and overall development

Progressive Muscle Relaxation (PMR) - The act of intentionally contracting and relaxing groups of muscles to relieve muscle tension and ease physical manifestations of anxiety

Root cause analysis - The implementation of a range of tools, approaches, and assessments to uncover the underlying cause of a particular health concern

Section 4: Behavior-Based Assessments

34,35,36,37

A thorough evaluation process is an essential first step in behavior modification. As we mentioned earlier, this will help a therapist determine the root cause of a person's behaviors, which allows them to effectively manage them. Since the evaluation is such a short period of time in comparison to a patient's plan of care, problem behaviors and the circumstances leading up to them may not present themselves during this time. This is why therapists must engage in ongoing assessment in order to ensure they are always using the most suitable approach with their patients.

OT Tools for Assessing Behavior

Occupational therapists can use a few tools and standardized assessments to evaluate patients from a behavioral lens. An occupational profile, which is a common part of the occupational therapy evaluation process, provides an overview of a patient's habits, needs, contexts, routines, values, likes, dislikes, history, and past experiences. While this seems very general, it can provide valuable information about a person in preparation for addressing certain behaviors.

OTs can also utilize task analyses to break down how a task is completed and gain a greater understanding of what aspects are causing a patient the most difficulty. A task analysis consists of detailed descriptions of the following components required of a given task:

- Physical and mental capacity
- Frequency of a task
- Resource allocation
- Duration of the task and subtasks
- Environmental factors
- Complexity of each duty and the task as a whole
- Clothing, equipment, and other tools

Therapists can complete a task analysis by identifying the target skill, comparing the skill to that of the patient, separating the skill into smaller parts, confirming each aspect has been accounted for, implementing intervention(s) based on problem areas found, monitoring a patient's progress, and making adjustments as needed. This is also akin to an OT's role in patient care. Much of the plan of care involves getting a general and specific view of a patient's situation to identify and address areas for improvement. Task analysis involves the same steps, but the patient is replaced with an activity.

An ecological analysis is similar to a task analysis but instead focuses on the environment where patients engage in occupations. Ecological analysis are quite common within the school system, but they can take place in any context that a patient interacts with. While each assessment will look slightly different due to each discipline's scope of practice, behavior therapy professionals and occupational therapists can both perform an ecological analysis.

One of the main standardized assessments that occupational therapists can use to measure a patient's behaviors is the Vineland Adaptive Behaviors Scale (VABS). This test can also be administered by education professionals, psychologists, counselors, social workers, and other related therapists who hold a Master's degree in their field. The VABS can be used on patients of any age, as there are versions that accommodate infants, toddlers, children, and adults. The VABS was originally developed to help aid in the diagnostic process for individuals with intellectual and developmental disabilities, but it has since been expanded for use with those who have ADHD, any form of dementia, hearing impairments, traumatic brain injuries, and ASD.

Other Tools for Assessing Behavior

One of the most well-known behavior assessments is The Functional Behavior Assessment (FBA). The person administering this test should be formally trained to do so, since it requires a specific type of data collection. This assessment is commonly used in the school system, so most of the professionals who utilize this training consist of counselors and school psychologists, principals, assistant principals, and special education teachers. Professionals can administer the FBA on patients as young as 2 years old through adulthood. The FBA was designed for patients with significant communication or cognitive limitations, such as severe ASD and intellectual disabilities. The steps in conducting an FBA include:

- Working with the patient's team to pinpoint the behaviors that need to be adjusted; the team should be in agreement about the most serious behaviors that will be prioritized
- Recognizing the environments (and associated features) that cause the behaviors and those that do not
    - Does the problem relate to a person in a certain environment, such as the teacher or a peer?
    - Does the behavior change in response to how many peers are present or how difficult the task at hand is?
    - Does the behavior change based on what time it is, daily issues that arise, or the patient's mood?
    - Do any events impact the behavior?
- Gathering performance data from multiple sources, including incident reports, assessments, progress reports, and other documentation
- Formulating an educated guess based on the information present
- Determining what behaviors the patient can be taught based on the setting where the FBA took place

The Assessment of Basic Language and Learning Skills (ABLLs) is another assessment that related professionals may administer. This is ideal for children between the ages of 1 and 12. Due to the nature of the skills this test covers, it is common for the ABLLs to be performed by school psychologists, speech-language pathologists, education professionals, and early intervention specialists such as case managers and social workers. The ABLLs is predominantly used with children who have ASD, developmental delays, and congenital disorders. However, it is suitable for use with any child who has delays in adaptive skills and communication.

The Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP) can be administered by teachers, early intervention specialists such as case managers and social workers, speech-language pathologists, psychologists, and educators. This assessment is ideal for children as young as 18 months all the way through adulthood. The VB-MAPP consists of a barriers assessment, milestone assessment, task analysis, skills tracking,

and transition test. This makes it very actionable within the school system, since it allows professionals to adjust the IEP accordingly and make other recommendations.

Despite its name, the Behavior Assessment System for Children (BASC) can be used to assess patients between 2 and 25 years of age. The BASC is designed to evaluate a person's perceptions about themself and how this impacts their behavior. This test can be used to monitor any changes that may develop in a patient's behavioral or emotional health over time. The BASC may assist in the early identification of depression, anxiety, aggression, ASD, and other diagnoses.

The Adaptive Behavior Assessment System (ABAS-3) can be used to assess the adaptive skills of individuals from birth through adulthood. The ABAS can be helpful in diagnosing conditions such as learning disabilities, sensory processing disorder, ASD, developmental delays, neurocognitive disorders, intellectual disabilities, and physical impairments so it is quite versatile in the skill areas it covers. This assessment views a patient's skills in 11 areas within practical, social, and conceptual domains. Skills include self-direction, motor performance, leisure function, self-care abilities, social skills, work function, self-direction across all areas, community integration, personal safety, home and school performance, communication, and functional academics.

Section 4 Personal Reflection

What role might an occupational therapist have in implementing recommendations on the basis of a Functional Behavior Assessment?

Section 5: Diagnosis and Management of Behavioral Concerns

38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70

Patients may demonstrate problem behaviors for a range of reasons. It's possible for minor behavioral concerns to end up as isolated incidents as a result of the patient having a bad day or having a one-time reaction to a major stressor in their environment such as money problems. These situations are more likely to occur with high-functioning patients and often don't require much resolution aside from briefly talking through the issue. This is rare, though, since the majority of problematic behaviors therapists

observe are displayed on a regular basis and can be attributed to certain diagnoses or symptomatology.

There are certain diagnoses that are well-known for their role in causing individuals to present with difficult or problematic behaviors. Most often, this is the result of changes in the brain, but it can also be due to a combination of factors like certain personality traits (impulsivity or perfectionism), a history of trauma, a genetic predisposition toward the condition, and external stressors. When thinking of diagnoses that cause undesirable behaviors, there are a few conditions that stand out from the others.

Behavioral Disorders

Conduct Disorder

One example is a behavioral condition called conduct disorder (CD), which is diagnosed in children and teens who meet four specific criteria, including:

- Damaging property (e.g. arson, vandalism)
- Demonstrating aggressive behavior or causing serious bodily harm to animals or people (e.g. bullying, sexual assault, physical assault, use of weapons on others)
- Violating school, home, and community rules on a regular basis (e.g. skipping school, leaving home, hypersexual behavior at a very young age)
- Lying consistently to obtain items and sidestep any consequences for their actions (e.g. shoplifting, cheating, breaking and entering, robbery, grand theft auto; younger children may lie with no true motive)

Additional symptoms of conduct disorder may include low self-esteem, frequent bouts of anger (temper tantrums in younger children), alcohol and/or drug misuse, and persistent irritability.

The most effective treatment for conduct disorder is psychotherapy, specifically CBT that focuses on developing moral reasoning, improving problem-solving skills, managing impulses, and resolving anger. Another important aspect of talk therapy is family therapy to address prevailing concerns within the home. Loved ones and guardians are also encouraged to individually undergo parent management training (PMT), which involves teaching parents how to modify their child's specific behaviors at home. While there are no recommended medications for conduct disorder as a whole, providers will often

prescribe medications to help manage symptoms such as aggression and mood imbalances.

If an adolescent with CD does not get treatment, they are much more likely to develop other behavioral and/or mental health conditions – including personality disorders (specifically antisocial personality disorder), depression, anxiety disorder, and substance use disorder – as they enter adulthood.

Oppositional Defiant Disorder

Oppositional Defiant Disorder (ODD) is another behavioral disorder that impacts children. This diagnosis is made between the ages of 8 and 12 in children who demonstrate the following symptoms:

- Constantly questioning and refusing to follow rules in the home, at school, or in the community
- Purposely acting out in a way that upsets or annoys people
- Placing blame on others for the consequences of their own actions
- Seeking revenge for perceived wrongdoings by others
- Being easily annoyed by others
- Arguing with adults over major and minor issues
- Saying cruel, hurtful things when they are upset
- Frequently being angry, resentful, and having temper tantrums

These symptoms usually occur the most with individuals the child is most familiar with, including parents, teachers, and family members.

Children with ODD often also experience ADHD, anxiety disorders, depression, conduct disorder, communication impairments, and learning disorders. In order to experience success with ODD treatment, it is important that any coexisting conditions are also appropriately treated. As with CD, treatment for children with ODD also includes parent management training (which is partly done with and without the child present) and skills training in the area of problem-solving and social interaction. Additionally, children with ODD can benefit from individual talk therapy to address and manage anger as well as family therapy to enhance communication and address any concerns within the home.

Parent management training may also include other figures in the child's life (such as teachers and coaches) who are subject to their behaviors. Another central modality used to treat children with ODD is parent-child interaction therapy, or PCIT. This involves a therapist coaching parent(s) from behind a one-way mirror as they interact with their child. The therapist uses an earpiece to lead parents through conversations that help reinforce good behavior in the child.

Children with ODD who do not receive treatment are at risk of developing additional behavioral concerns as an adult, including substance use disorder(s), antisocial personality disorder, suicidal thoughts, and concerns related to impaired impulse control.

Addiction

Addiction is a blanket term that refers to being physically and/or psychologically dependent on a habit, activity, item, or substance. The term addiction doesn't occur as much in the context of substance dependence, as it has been replaced by a more clinically accurate term: substance use disorder. However, there are many other addictive behaviors that fall under this category. Behavioral addiction is the most common type of addiction, which involves dangerous and compulsive engagement in certain activities such as gambling, shopping, playing video games, internet usage, sex, plastic surgery, eating, and hoarding. Substance addiction is its own category, which is characterized by physical dependence on one or a combination of substances, such as heroin, methamphetamines, cocaine, opioids, tobacco, hallucinogens, benzodiazepines, anxiolytics, and alcohol. The last type of addiction is that of impulsivity, and this involves destructive behavior, theft, emotional outbursts, and other concerns related to the act of making decisions too quickly without much prior thought. Individuals with an impulse addiction are more likely to experience other types of addiction, though it is possible for anyone to suffer from concerns in more than one of these categories.

Individuals with mental health conditions such as PTSD, conduct disorder, antisocial personality disorder, bipolar disorder, depression, and anxiety disorders are more likely to turn to addictive behaviors (substance use or other types) to self-manage their symptoms.

Symptoms of addiction will vary slightly based on the type. However, individuals who exhibit a behavioral addiction will often demonstrate many of the same symptoms of someone with a substance addiction. These symptoms usually include:

- Having strong substance or activity cravings that make it difficult to focus on other tasks
- Feeling the need to regularly use a substance or engage in a certain activity throughout the day
- Prioritizing keeping an ample supply of the substance or participating in the activity in lieu of other things on their schedule
- Failing to fulfill obligations at work, school, home or in social circles due to substance use or engaging in a certain habit
- Using the substance or engaging in the activity despite knowing the growing dependence along with the negative psychological and physical consequences
- Devoting an inordinate amount of time to accessing a substance, using a substance, engaging in a certain behavior, and/or recovering from using a substance
- Withdrawing physically and psychologically when you stop or attempt to stop using the substance; feeling some physical effects (e.g. adrenaline rush then relaxation) after engaging in the activity and psychological effects after not engaging in the activity for some time
- Attempting to stop using the substance or practicing the activity on your own and failing to do so
- Spending an excess of money on the substance or activity despite not being able to afford it
- Engaging in risky or uncharacteristic behaviors to access the substance/activity or while under the influence of a substance
- Seeking out and using more and more of a substance or activity to produce the same end product

While each addiction is slightly different, addiction treatment is considered most effective when it takes a combined approach. Talk therapy, specifically CBT, is usually indicated to treat the underlying mental health concern(s) behind the behavioral concerns. This not only increases someone's chances of long-term success in recovery from addiction, but it also helps manage co-occurring disorders, if present. Patients should also receive education about the mechanisms of addiction, what to expect during

the recovery process, and the potential for relapse along with healthy coping mechanisms, the formation of positive habits to take the place of maladaptive ones, assertive communication, and the development of a personal support network. Therapists can also guide patients with behavioral addictions through competing response training, which offers them alternative habits to replace unhealthy ones.

Medications may also assist in helping manage these mental health concerns, but they can also assist with the detoxification and recovery process. Some of the following medications fall under that category:

- Naltrexone (commonly known as Vivitrol) is used to reduce opioid or alcohol cravings
- Suboxone (known as Buprenorphine, Naloxone) and Methadone (Dolophine) are variations of the same medication used to alleviate symptoms of opioid withdrawal and lessen cravings for opioids
- Disulfiram (also called Antabuse) creates an immediate sensitivity to alcohol, so it is used to reduce someone's tendency to consume alcohol
- Acamprosate (commonly known as Campral) is used to manage symptoms of alcohol withdrawal
- Modafinil (known as Provigil) is used to manage symptoms of cocaine or methamphetamine withdrawal
- Bupropion (also called Wellbutrin, Zyban) is an antidepressant that is primarily used to treat mood disorders such as bipolar disorder and major depressive disorder, but it can also assist with nicotine withdrawals as part of a smoking cessation program
- Gabapentin (commonly known as Neurontin) is primarily prescribed to relieve acute nerve pain; while it can help manage withdrawal symptoms from a range of substances, its most common purpose in addiction treatment is for managing symptoms of alcohol withdrawal
- Mirtazapine (known as Remeron) is most often prescribed to help manage the effects of withdrawal from cocaine, opioids, methamphetamines, and alcohol
- Topiramate (also called Topamax) is used to manage symptoms of alcohol withdrawal

Eating Disorders

Binge eating disorder (BED), bulimia nervosa (BN), and anorexia nervosa (AN) are also considered behavioral conditions because they cause someone to engage in disordered eating habits.

Individuals with any eating disorder spend a lot of their psychological time thinking about their weight and body and fearing weight gain. The actions associated with each eating disorder differ, though. Individuals with BN may repeatedly eat large amounts of food at a time (due to a perceived loss of control) followed by forced vomiting, use of laxatives or products intended for weight loss, restrictive food habits, and/or excessive exercise after eating. Someone with AN, however, is more likely to suddenly eliminate certain foods from their diet, frequently discuss how they feel overweight, wear loose or heavy clothing year-round, and isolate themselves from others. Many individuals with AN will excessively exercise, use diet pills, take laxatives, or excuse themselves to use the bathroom after eating. They are also likely to diet even when it's not indicated based on their weight or body type. Individuals with BED frequently demonstrate the unhealthy eating habits of someone with bulimia or anorexia nervosa, but they do not engage in any dieting, vomiting, or excessive exercise afterwards. Someone with BED is likely to eat a large amount of food in a short period of time (even if they are not hungry) until they are uncomfortably full. This typically stems from an internal sense of lost control. Episodes are often followed by feelings of guilt, disgust, anxiety, and depression.

Treatment for most eating disorders is similar. Since each of these conditions is often associated with negative thought patterns, fixed beliefs, and low self-esteem, psychotherapy with a focus on CBT or DBT is undoubtedly a large portion of treatment. Individuals with bulimia and anorexia nervosa should also enter a supervised weight gain program and consult closely with a dietician/nutritionist and exercise specialist to learn how to eat and exercise in a healthy way. Support groups and medications – primarily antidepressants and sometimes antipsychotics – can also assist in recovery.

Another related condition that differs from the aforementioned eating disorders, but involves unhealthy eating habits is pica. This involves eating inedible substances such as sand and dirt or non-nutritive foods such as ice. Pica is most often associated with other behavioral health conditions such as schizophrenia, intellectual disabilities, and ASD, but it can also be considered a condition itself as it often occurs during pregnancy. Since the cause of pica is typically hormonal (when it arises during pregnancy) and related to a lack of certain nutrients (such as iron), treatment for pica most often involves addressing any malnutrition or specific nutrient deficiencies. Nutrition therapy, feeding training, and

related interventions may be indicated if individuals also demonstrate strong aversions to food, though this is not typical for those with pica so a more thorough evaluation would be recommended in those cases.

Antisocial personality disorder

This personality disorder is one of the most prevalent when it comes to problematic behaviors. Individuals with ASPD demonstrate the following symptoms:

- Having little regard for their own safety or that of others
- Flattering and manipulating others while showing no guilt or remorse for wrongdoings toward them
- Misusing substances
- Casually and frequently breaking the law
- Lying to and fighting with others constantly
- Stealing from anyone they want to
- Presenting as charming and clever when they want something
- Frequently behaving in a conceited or angry manner

As with all personality disorders, there is no pharmacological treatment for ASPD. Moreover, it is one of the most difficult personality disorders to treat due to manipulative behaviors and traits such as arrogance. Individuals with ASPD rarely self-present to treatment centers and often receive diagnosis and treatment per a court mandate. Behavioral techniques such as CBT have proven effective for some individuals with this condition who have agreed to change and voluntarily entered treatment, but the overall prognosis for this condition is not great due to treatment resistance. Evidence shows that some antisocial tendencies lessen in intensity as a person ages, so middle-aged individuals may begin to show signs of positive change on their own. People with ASPD are also at risk of substance use disorders and mood disorders such as depression, which must be managed in order for them to succeed in treatment.

Attention-Deficit Hyperactivity Disorder

Attention-Deficit Hyperactivity Disorder (ADHD) is a common behavioral condition that causes overly active behaviors, impulsivity, and difficulty focusing. Individuals first show

signs of ADHD in childhood, but this condition lasts well into adulthood and can cause someone to have trouble at work and at home. Symptoms of ADHD include:

- Getting easily distracted
- Losing belongings or forgetting about appointments
- Lacking organization with tasks and belongings
- Making simple mistakes due to not paying close attention
- Fidgeting and excessively moving or talking, especially in the way of interrupting others
- Frequently changing tasks
- Acting without thinking, especially in dangerous situations
- Being unable to take turns with others
- Having trouble sitting still in calm situations
- Struggling to listen when someone is giving instructions
- Failing to carry out an activity as directed
- Not completing tasks that take a long time or require a lot of detail

Treatment for ADHD in children under the age of 6 strongly emphasizes parent training in behavior techniques, since there is little evidence that shows success with medications in children this young. Research shows that children with ADHD above the age of 6 also benefit from parent training in addition to behavioral strategies in the classroom, training to teach physical and mental organization, and peer interventions focused on social skills and positive behaviors. Stimulant and non-stimulant medications can also help older children with ADHD in improving their focus. Children and adults with ADHD may also be diagnosed with depression, ODD, anxiety disorders, sleep disorders, ASD, epilepsy, learning disabilities, conduct disorder, Tourette's syndrome, and dyspraxia. In order for someone to effectively manage ADHD, these conditions must also be treated.

Obsessive-Compulsive Disorder

Obsessive-Compulsive Disorder (OCD) is another behavioral condition that is characterized mainly by intrusive thoughts (obsessions) that lead to repetitive, sometimes harmful behaviors (compulsions). Symptoms of OCD include:

- Demonstrating agitation along with feelings of guilt, panic, and anxiety
- Experiencing symptoms of depression
- Acting impulsively
- Being hypervigilant
- Isolating from others
- Having nightmares
- Consistently or meaninglessly repeating certain words or actions
- Engaging in ritualistic behavior

Individuals with OCD may also demonstrate physically injurious behaviors – usually not done with the intention of self-harm – such as skin picking (excoriation) or hair pulling (trichotillomania). Each of these behaviors can cause scarring, intense pain, and infection.

Individuals with OCD benefit from talk therapy focused on CBT to address fixed beliefs about dirt, contamination, objects that cause them fear, and other negative thoughts. People with OCD also often undergo systematic desensitization to expose them to certain stimuli that cause them intrusive thoughts. Antidepressants are typically the medication of choice for individuals with OCD, but some patients may also benefit from antipsychotic medication if their beliefs turn into delusions. Patients who demonstrate self-injurious behaviors should receive education on skin and hair hygiene to prevent any infections. Therapists can introduce patients to certain moisturizers, hair masks, and other products that can encourage them to care for their skin and hair rather than harming it. Patients can also use accountability partners for this habit so loved ones can increase their awareness when they notice these behaviors. Therapists can also educate patients on keeping busy (particularly their hands) to avoid skin picking and hair pulling. This may include squeezing a stress ball, doing hand exercises, wearing gloves or a tight-fitting hat to offer some sensory input, flicking their pen while working, deep breathing or reciting affirmations until the urges go away, or using a fidget to keep their hands

occupied. Individuals who focus these behaviors on their hair may also want to keep their nails and hair short to minimize the injury they inflict on themselves.

Individuals who demonstrate these self-injurious behaviors can also benefit from competing response training. The first stage of this technique involves identifying warning signs, the antecedent, and other factors that lead up to the occurrence of a habit (skin picking or hair pulling). During the second stage, the patient forms an alternative (or competing) response to the habit they just identified. In order to be effective, the alternative must be physically different from the previously-identified habit as well as discreet and simple enough to practice during daily life.

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a behavioral condition that often causes problematic behaviors that are very physical in nature. Evidence suggests that ASD is more common in those born prematurely, as it often results from impaired brain development as a young child. Individuals with ASD demonstrate some of the following symptoms:

- Stimming, engaging in behaviors such as rocking, vocalizations, manipulating inanimate objects, hand flapping, spinning, finger-flicking, mouthing objects
- Self-injurious behaviors, such as hitting oneself with hands or other body parts, head banging, picking at skin or sores, or biting, scratching, and rubbing a certain part of the body to the point of bruising, bleeding, or pain
- Limited interests
- Perseveration on certain objects, activities, or topics
- Impaired communication skills
- Difficulty learning new skills or ideas

Because of the wide range of symptoms and severities associated with ASD, this condition can be difficult to treat and responds best to multidisciplinary care. This includes behavior management across all of a patient's contexts, CBT with high-functioning patients, nutritional therapy in patients with severely limited diet, speech-language therapy and social skills training for those with communication deficits, and physical and occupational therapy for patients with ASD who have motor delays. School-based therapies along with behavior management strategies can especially assist in attending classes and improving academic performance. Parent-mediated therapy is also

used to assist in promoting and developing healthy behaviors, coping strategies, and new skills. Medications including stimulants and antipsychotics primarily serve to manage behaviors such as aggression, but can also benefit social skills in combination with related treatments such as speech and occupational therapies. Joint attention therapy can be used by a variety of disciplines to improve a patient's ability to focus on more than one activity or object at a time. This also involves following instructions given by other people and organizing tasks for more efficient completion, which can also help with improved social skills.

When children with ASD engage in behaviors such as mouthing, it is most often due to seeking sensory input or looking to suck on objects as a way to calm themselves. Either way, it can distract them from the intent of sessions, so therapists can manage mouthing by offering increased sensory input, specifically in the oral-motor realm. Therapists can incorporate a range of tools into sessions to encourage more productive mouthing, such as a harmonica, whistle, kazoo, and bubbles. Therapists can also recommend that parents help their kids use a vibrating wand to offer a gum massage or utilize an electric toothbrush when brushing their teeth. Parents can also encourage their child to suck on lollipops, juice sticks, ice cubes, or frozen fruit. They can also use a straw along with thick liquids such as milkshakes or yogurt. Children can also get this input by adding crunchier foods to their diet, such as popcorn, fruit or vegetable chips, nuts, granola bars, raw carrots, pretzel sticks, and more. The idea behind this is not to discourage mouthing, but to give the child the input they are looking for or redirect the behavior to a related but more productive therapeutic activity.

Self-injurious behaviors can similarly be managed through sensory input. Each person will likely seek out and respond to sensory input differently, which is why preferences and tendencies should be taken into account. Assessment such as the Sensory Profile can assist with this.

Mental Health Concerns

Individuals with mental health conditions can also demonstrate problematic behaviors that impact treatment and can even place themselves or others in danger.

Schizophrenia & Unspecified Psychosis

One of the most salient examples of this is individuals with schizophrenia or those who are experiencing isolated psychotic episodes. Schizophrenia is characterized by large-

scale, chronic perceptual changes that can cause disorganized thinking and eccentric behavior along with delusions and hallucinations that impact their ability to function. Psychotic episodes are exacerbations of schizophrenia, but individuals may also experience psychosis if they are under the influence of certain recreational drugs or as a side effect of prescribed medication. Individuals may also experience psychotic episodes as a result of acute medical concerns such as a head injury, high fever, dehydration, and lead poisoning. Symptoms of schizophrenia include:

- Seeing, smelling, tasting, hearing, seeing, or feeling things that are not there (also called hallucinations)
- Possessing strong, irrational beliefs that are either untrue or cannot be proven true (also called delusions)
- Disorganized, unusual, and illogical thinking and speech
- Abnormal, eccentric, and often repetitive movements

Individuals with schizophrenia and those experiencing acute psychosis often also struggle to engage with others and complete daily living tasks such as self-care. Many individuals with schizophrenia self-manage their symptoms so they may also have substance use disorders. These conditions will require treatment in order to fully manage the behaviors of someone with schizophrenia.

As a whole, schizophrenia is managed through antipsychotic medication and assertive community treatment to give them support in employment and housing. Most behavioral concerns related to schizophrenia and psychosis arise when someone is in an acute crisis, and the only long-term treatment method for this is antipsychotic medications. Therapists can assist with easing someone's discomfort and agitation during psychosis by using verbal de-escalation techniques such as active listening and relaxation strategies. The best way for therapists to approach psychotic symptoms is to attempt to distract the person from the hallucinations and slowly, calmly orient them to their surroundings in a way that is comfortable to them. Don't force them to talk if that only makes the voices in their head louder, for example. The opposite approach should be used to address delusions. Therapists should avoid confronting delusions or convincing patients that their delusions are untrue. It's best to use relaxation and verbal de-escalation techniques if individuals are becoming distressed as a result of hallucinations or delusions. Individuals who are actively experiencing hallucinations are not a good fit for group therapy, so it's best that therapists keep treatments on an individual basis in private, distraction-free settings until a patient is stabilized.

Akathisia, or inner restlessness that causes someone intense difficulty sitting still, is another difficult behavior that may result in this population. Individuals with schizophrenia may experience this symptom since akathisia is often a side effect of antipsychotic (and sometimes antidepressant) medications. Another similar concern is tardive dyskinesia, a movement-related disorder that also develops from certain antipsychotic medications and causes involuntary motions in the arms, fingers, mouth, and face. Akathisia is a symptom of tardive dyskinesia, but it can also exist on its own, since it manifests as general restlessness in the form of rocking, pacing, and other full-body movements.

Akathisia can sometimes be managed through additional medications, but there are additional complications that can arise. Doctors may also choose to lower antipsychotic doses if this is the true source of the symptom. Therapists can best manage akathisia in patients by making therapy modifications to allow for it, as long as it does not disrupt others. For this reason, patients with akathisia may be a better fit for individual sessions taking place in a large space. Therapists should offer plenty of room and opportunity for movement during sessions. Patients with akathisia can engage in talking portions of therapy while walking around and participate in seated, tabletop activities when there are plenty of breaks given. There is also the opportunity to structure the movement breaks with gross motor tasks and other preparatory exercises to improve their performance in the seated tasks. Patients with akathisia may also benefit from manipulatives and other items to keep their hands occupied during the times they need to remain seated.

Neurological Disorders

Individuals with neurocognitive disorders such as dementia, cerebrovascular incidents (CVA or stroke), and traumatic brain injury (TBI) can also exhibit problematic behaviors that impact therapy. This includes:

- Shouting
- Biting
- Waking people at night
- Throwing objects
- Delusions
- Hallucinations

- Calling others names
- Attacking others
- Wandering (elopement)
- Repetitive talking
- Agitation

These conditions all result from damage to the brain, either due to physical injury, loss of oxygen, or genetic predisposition to brain degeneration that contributes to certain types of dementia. Most of these conditions respond well to behavioral techniques. There is evidence supporting the use of environmental modifications, reminiscence therapy, orientation training, and non-confrontational conversation as a way to improve the behaviors of someone with dementia.

Environmental modifications can include clutter- and distraction-free environments, the use of favorite and/or familiar items, the creation of routines and smooth transitions, allowing room for movement and walking to assist with restlessness, and playing music in the evening before bed to encourage sleep. People with dementia may also experience sundowning in the late afternoon through the evening. This often causes an increase in wandering, aggression, and disorientation. The above environmental modifications can assist with managing sundowning along with allowing for natural lighting and exposure to sunlight throughout the day. It's also best to avoid caffeine and prevent daily schedules from getting too busy.

Reminiscence therapy is specific to forms of dementia since it uses a person's long-term memories to encourage feelings of calmness and happiness. However, environmental modifications, orientation training, and communication training can benefit individuals with any type of neurocognitive disorder.

Apraxia and dyspraxia are two other neurological disorders that can cause behaviors that impact the therapy process. Both of these conditions impact learned movements – apraxia prevents someone from completing certain movements at all while dyspraxia causes someone to partially perform tasks. In order for a patient's impairments to be attributed to apraxia or dyspraxia, therapists must first rule out paralysis, sensory concerns, learning disabilities, and attention deficits. There are three forms of apraxia: ideomotor, ideational, and limb-kinetic (or melokinetic). Someone with ideomotor apraxia will be unable to perform certain movements after seeing a demonstration or being instructed to do so. Limb-kinetic apraxia causes the same impairment but only in

one limb. Ideational apraxia impacts someone's ability to use objects correctly, so they may attempt to use inappropriate objects during certain tasks. While individuals with apraxia may not disrupt others, it is still important for therapists to make accommodations so they can get the most out of therapy. Therapists can use tactile cueing, visual scheduling, passive range of motion, and other multi-sensory tools to encourage learning and participation in these patients.

Tourette syndrome is a neurological condition that is characterized by the creation of disruptive, uncontrollable, repetitive sounds and movements, also known as tics. Individuals with Tourette syndrome often demonstrate simple or complex motor or vocal tics. Simple tics involve one body part, while complex tics involve more than one. These tics may include:

- Grunting
- Eye movements such as blinking
- Sniffing
- Facial grimacing
- Barking
- Shrugging shoulder(s)
- Clearing the throat
- Jerking the head or shoulder
- Repeating phrases or words of their choosing
- Hopping
- Repeating phrases or words said by others (called echolalia)
- Twisting
- Repeating obscene phrases or words (called coprolalia)
- Sniffing or touching objects
- Bending or jumping

Individuals with Tourette syndrome are more likely to also have some of the following diagnoses: ADHD, OCD, learning disabilities, sleep disorders, anxiety disorders, and sensory processing disorder. Treatment for Tourette syndrome often involves medications such as stimulants, antipsychotics, and antihypertensives to decrease the prevalence of tics. Talk therapy is another effective therapy, not only to help individuals cope with the social, academic, and functional effects of their tics, but also to manage any comorbidities that are present. A specific type of psychotherapy called supportive therapy is especially encouraged for patients with this condition, since this helps someone build resilience and maintain self-esteem. A specific type of CBT, called Cognitive Behavioral Intervention for Tics (CBIT) can also teach patients with Tourette syndrome to engage in voluntary movement when they sense a tic is coming on. This also incorporates the use of other behavioral strategies, such as mindfulness and self-awareness training, which are vital to the technique. Individuals with Tourette syndrome can also benefit from competing response training to help them identify and replace their existing habits (tics) with alternatives that are physically different.

Therapists can manage echolalia by keeping sessions with these patients on an individual basis along with thoughtfully pausing to help determine if the patient is trying to communicate something with their words. Therapists can also learn what the patient may be looking for or preferring if they watch their movements along with listening to their words. While this may fall more under the scope of practice of an SLP, therapists can also modify a patient's phrasing to be more appropriate, if it uses incorrect verbiage. For example, if a child says, "You want a cookie," but means they themself want a cookie and are demonstrating physical signs of hunger, the therapist might respond by saying, "[Patient's name] wants a cookie" to encourage them to have more functional speech.

Addressing joint attention can also assist a patient in managing echolalia, so that their speech lines up with the task they are engaging in. Therapists can also manage echolalia by using simpler phrases and words when instructing their patients, giving prompts to elicit proper responses, and using visuals with choices whenever possible. Therapists can avoid asking questions, which will only prompt additional echolalia. Social learning can play an important role here, as well, since modeling with a colleague can encourage appropriate behavior. As with many difficult behaviors, using these strategies and exercising patience is also the key to progress.

Genetic Disorders/Intellectual Disabilities

Several genetic disorders can cause patients to engage in problematic behaviors. For example, a genetic condition called Lesch-Nyhan Syndrome causes a buildup of uric acid in the body, which leads to a variety of behavior changes. One of the main and most difficult behaviors of this condition is self-harm, including head-banging, lip and finger biting, and more. Similarly, Cornelia de Lange Syndrome is an intellectual disability that also causes self-harm as a major symptom.

Traditionally, treatment for self-harm behaviors involves awareness of the behavior and its impact on the person, CBT, DBT, and other forms of psychotherapy focused on improving mindfulness. However, these strategies may not be as effective for individuals with genetic disorders due to impaired cognition and learning difficulties. In these instances, some of the best treatments are sensory in nature to offer patients alternative coping strategies and other activities that provide input. Due to the aforementioned learning difficulties, parent training is highly recommended as a way to facilitate safe, efficacious engagement in these sensory activities.

Another genetic disorder that causes difficult behavior is Prader Willi Syndrome, which is characterized by intellectual disabilities along with hormonal changes that lead to insatiable hunger (also known as hyperphagia). The best way to manage this behavior is by creating a food-secure environment. This is best done by:

- Keeping food out of the patient's view
- Locking cupboards and the fridge outside of mealtimes
- Creating regular mealtimes for a patient from the time they are an infant, ideally as soon as they transition to eating solid foods
- Controlling portions by limiting high-calorie foods or snacks, offering small portions of carbohydrates, and providing vegetables, fruits, and other low-calorie foods
- Adding vitamin supplements to their diet
- Continuously supervising the patient

It's also important to update all members of the patient's care team to ensure they adhere to these same methods. While regular exercise will not stop hyperphagia,

activities such as walking, swimming, and jogging can temporarily distract patients from food and burn some calories.

Another genetic condition called Rett Syndrome causes individuals to engage in repetitive movements, especially related to the hands, including:

- Hand wringing
- Clapping
- Tapping
- Rubbing and washing motions
- Grasping and releasing without any objects present
- Moving hands to and from the mouth
- Clasping hands behind the back
- Holding hands down at their side

While these behaviors are not typically harmful, they can be disruptive to the therapy process. If movements are so frequent they cause joint concerns, patients can be fitted for restrictive orthoses for the elbow and wrist, which still allow for digit movement and occupational engagement. These orthoses can also address tone concerns that impact function. Relaxation techniques may be indicated to assist with sleep disturbances as well as heightened activity levels during the day time.

Section 5 Personal Reflection

In what cases might a therapist need to remove a patient with difficult behaviors from group therapy?

Section 5 Key Words

Comorbidities - When someone has two or more active health conditions

Co-occurring disorders - When patients are diagnosed with a substance use disorder and mental health condition that are both active and require treatment

Psychotherapy - Counseling, also known as talk therapy, that incorporates a variety of modalities intended to work through negative or harmful thought patterns, emotions, and behaviors

Reminiscence therapy - An activity-based therapy that involves using past memories to improve self-esteem, manage behaviors, and regulate emotions in those with dementia

Stimming - Repetitive but natural movements someone engages in to calm themselves; also known as self-stimulation

Section 6: Case Study #1

An OT begins treating a 6-year-old patient who has just been diagnosed with ASD. The patient demonstrates minimal eye contact and fixates on playing with his train for most of the session. He also exhibits echolalia and will continually say, “Go home, home, home” when he wants to be done with therapy. The therapist is a new graduate working at a busy clinic where there isn’t much private space for therapy to be done. His parents have several other children and have not been able to follow any of the home recommendations so far, so any progress the therapist has seen in the clinic has not been carried over to the home.

1. What strategies can the therapist try to better engage this patient in therapy?
2. What can the therapist do to encourage better compliance?

Section 7: Case Study #1 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What strategies can the therapist try to better engage this patient in therapy?

   Since this child has autism and demonstrates echolalia, it is very likely he would respond well to the use of a visual schedule. This would also help structure the session in a way that gets him away from his trains and allows for periodic free play with them after completion of scheduled tasks. The therapist can also try moving the appointment time to a slot when the clinic is not as busy so she can

potentially get a quiet room for them to work in. The therapist can also try incorporating more movement into the session, especially surrounding the child's interests. She can guide the child through doing a dance to a train song or stacking blocks in the shape of a railroad in preparation for free play during his break. Depending on the child's skill level and outlined goals, the therapist can also help the child color in a picture of a train, cut a picture of a train out, or create a train following a 2- or 3-step craft activity. This makes the session client-centered while also encouraging skill development and attention to the task.

2. What can the therapist do to encourage better compliance?

   The therapist can inquire if it's possible to complete sessions within the home, since the child may be more comfortable within his natural context. This can also help the therapist do some hands-on training with the parents to encourage more compliance with home recommendations and carryover to an environment that is more familiar to the child (and may also be more conducive to engagement).

Section 8: Case Study #2

A therapist is working in the home of a 9-year-old girl who has diagnoses of ADHD and a learning disability. She has recently begun to demonstrate aggression, particularly toward her teachers and parents. The OT completed her evaluation and interviewed the girl's parents and teachers. Sensory findings were normal and there were definite learning delays, specifically in the areas of reading comprehension and expressive language. Much of this frustration occurs at school during class time or in the early evening when parents are attempting to help her with homework. The OT determined that frustration over schoolwork is likely the trigger for this patient's behaviors. She has a 504 plan in place that allows for extra time during tests, but has not received any other therapies or accommodations. Since the patient's learning disability and ADHD were only recently diagnosed, the district is still in the process of creating an IEP for her so she can get connected with services.

1. What services would this patient benefit from the most?
2. What strategies should the OT first put into place to assist this patient?
3. If these help the child's academic performance, but not her aggression, what should the OT recommend or implement next?

Section 9: Case Study #2 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What services would this patient benefit from the most?

   Special education would allow a teacher to address academic concepts in a way that accommodates her learning disability. An SLP would help the child communicate in a way that expresses her feelings (frustration and more). This may or may not entail the use of an assistive device. An OT can assist the child with organization skills, planning, attention, and coping strategies to assist with both her ADHD and learning disability.

2. What strategies should the OT first put into place to assist this patient?

   The OT should educate parents and teachers about how to structure the environment at home and school to minimize frustration and improve focus for school-related tasks. This will include minimizing distractions, possibly to the point of having her complete tests and in-class assignments in a private, quiet room. She should also have her computer with her at all times so she can take notes, refer to reminders, and use other OT strategies throughout the day to remain mentally and physically organized. The OT should also encourage the child to keep a written or video journal (potentially using the dictation feature on her computer) to journal about her feelings so she can better manage her emotions. The multiple mediums allow her to find the way that she can best communicate herself in the process.

3. If these help the child's academic performance, but not her aggression, what should the OT recommend or implement next?

   This would be a good opportunity to utilize behavioral strategies such as CBT and role playing to practice certain conversations where she expresses her wants, needs, and frustrations in a productive manner using "I" statements. In addition to this, the OT can teach the child how to practice mindfulness using visuals, videos, and other multi-sensory techniques. If the child responds well to this and is able to gain enough self-awareness through both journaling and mindfulness, the OT can trial competing response therapy to help the child find healthier alternatives to aggression.

Section 10: Case Study #3

A 35-year-old woman was just admitted to an inpatient psychiatric unit due to experiencing active psychosis. She is reporting auditory and visual hallucinations, presenting with a flat affect, and refuses to leave her room. She has been receptive to engaging with only therapists for a moment here and there, and is not demonstrating any aggressive behaviors. She had a very brief conversation with the OT when she first arrived on the unit, but then declined to interact further. The OT has only been able to complete a sparse occupational profile based on the chart review she completed. She was given medications upon her arrival and the psychiatrist mentioned she should be stabilizing. The patient has been on the unit for 4 days, the OT is planning how to best approach her again.

1. How can the OT further engage this patient to learn more about her and create a treatment plan?
2. Is this patient appropriate for group therapy at this time?

Section 11: Case Study #3 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. How can the OT further engage this patient to learn more about her and create a treatment plan?

   The OT can approach the patient and ask to enter her room for a short period of time. She can give a time limit to encourage the patient to speak with her openly until that point. The OT should emphasize that the patient does not need to answer any questions she doesn't want to, but should feel safe to share anything about herself that would help the therapist make her time there more comfortable. The OT can begin by using active listening techniques while the patient shares followed by asking short, simple questions about her interests.

2. Is this patient appropriate for group therapy at this time?

   While the patient is actively hallucinating, she is not demonstrating any dangerous behaviors. For her first four days on the unit (usually the most

turbulent time for someone in a mental health crisis), she has not had any incidents, but also has not interacted much with peers. This means she would likely do okay in a group setting and could benefit from peer interaction to gauge if this is an area for the OT to address further. It would be okay for the OT to place this patient in a small group to trial how she does and if there are opportunities for improvement.

Section 12: Case Study #4

An 84-year-old man with Alzheimer's disease is living in a locked memory care unit. His wife passed away 2 weeks ago. Shortly after this, his demeanor has changed from relatively pleasant to aggressive and combative, especially during self-care routines such as showering. Additionally, his daughter has not been able to stop by for her twice-weekly visits since that time due to work obligations.

1. What intervention is likely not appropriate for this patient?
2. What is the best way for the OT to manage these behaviors?
3. How can the staff best work with this patient to minimize his aggression?

Section 13: Case Study #4 Review

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What intervention is likely not appropriate for this patient?

   It may be too early to use reminiscence therapy on this patient. Since his wife passed away so recently, it will likely only prompt the patient to recall events pertaining to his wife and get increasingly agitated in response to staff's attempts to calm him. This may be an effective strategy at some point in the future, though it should be implemented with caution.

2. What is the best way for the OT to manage these behaviors?

   The OT can create a calming routine surrounding showering by having as few people in the room as possible and using items familiar to the patient. There is

the possibility for sensory concerns, so it's best to use gentle, warm water. The OT can educate staff to not give the patient caffeine, encourage natural light inside along with sunlight during the day, and allow the opportunity for walks and other movement throughout the day. Most locked units have set schedules and routines, but the OT should also emphasize that adhering to this is important. The OT can also contact the patient's daughter and encourage her to come back on a regular basis, since this was a deviation from his routine.

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