This is Study Guide 3 of continuing education Course 6TBI—TBI Toolkit for Counselors, sponsored online by CEU By Net, LLC

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For your convenience, references and resources for the document content that you are studying will appear at the end. You will not be quizzed on the reference notations.

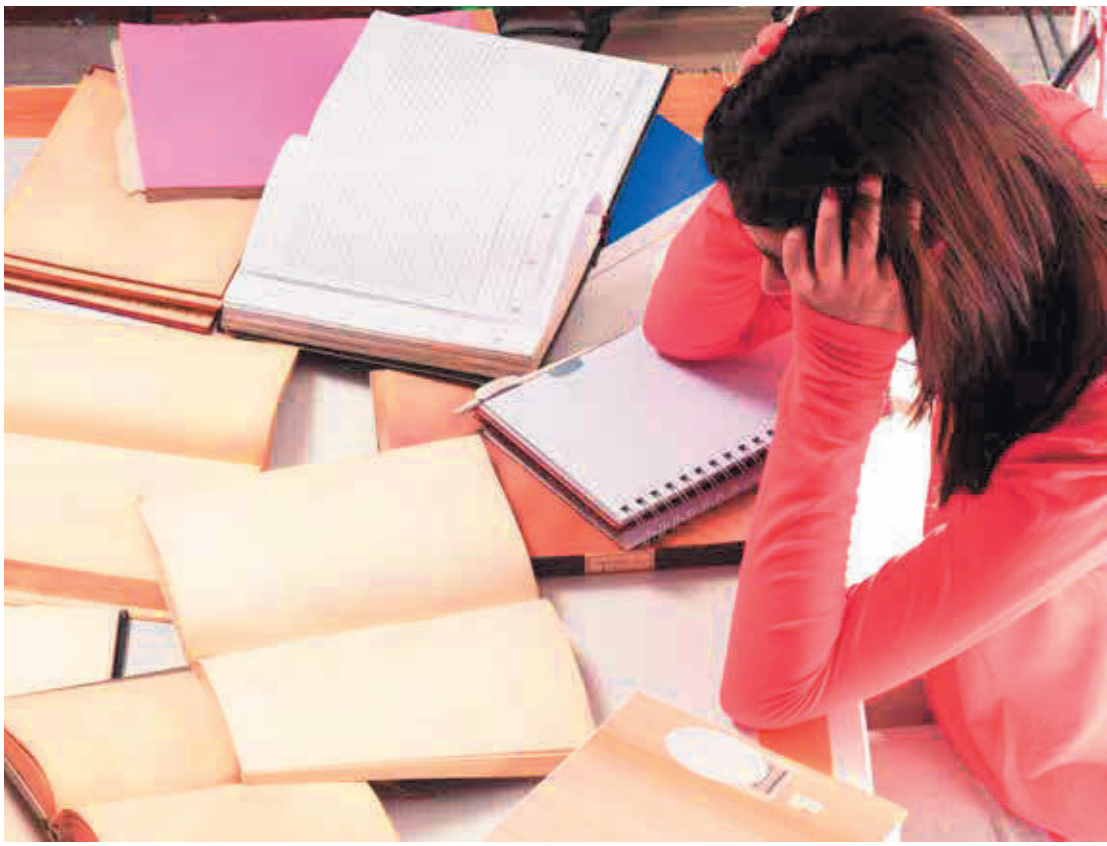
Problems with Executive Functioning

Executive functions are the cognitive processes that are responsible for regulating and managing both thinking and behavior. The term "frontal lobe functioning" is sometimes used interchangeably with "executive functions" because so much of these activities are mediated by structures in the frontal lobes.

Difficulty with executive functioning is common as the result of both brain injury and the toxic effects of many substances. These difficulties may be particularly difficult to understand because they are often present when a person has few, if any, other obvious cognitive or physical disabilities. For example, difficulty with initiation may cause someone to appear to be lazy or unmotivated because they remain passive (watching TV or sleeping), even when they are aware that there is something to be done. In this case, the brain is not providing the signal that a new action is required, and/or the individual has difficulty in setting the right goal or making an appropriate plan. When a person has difficulty seeing the big picture, planning, or problem-solving, they may seem to be making excuses or being uncooperative. Meta-cognitive strategies—teaching a client a way to think about thinking—are particularly useful for people who have difficulty self-regulating their behavior.

When a person has problems with executive functioning, you may notice:

- Difficulty generating new ideas.
- Trouble getting started on activities.
- Trouble finishing activities.
- Neglecting goals or things that seem important.
- Stubbornly sticking to one way of doing or thinking about things.
- Difficulty making decisions.
- Difficulty solving problems.
- Trouble setting goals and organizing activities.
- Being inconsistent in doing tasks.
- Having difficulty applying information or skills learned in one context to other contexts.
- Having trouble seeing the big picture.
- Getting caught in detail and neglecting the big picture.



What you can do to help:

- Help clients to create daily morning, noon, and night routines to check their appointment book and to-do lists. Morning orientation should be the plan for the day.
- Create structured routines.
- Provide external reminders or alerts.
- Teach Meta-cognitive Strategies.
- Discuss how learning in one aspect of the program directly applies to future phases or activities.

Meta-Cognitive strategies. Recall that much of what allows good executive functioning occurs without a lot of conscious thinking. When these automatic processes are disrupted, the goal becomes getting conscious processes to work in their place. A script (outlining a process) is reviewed with the client. The client is taught to recognize where and when a particular strategy might be useful and is then encouraged to use that strategy, with support. When the client demonstrates the ability to remember the script, they are encouraged to use it in a functional way, with gradually fading cues. It's important to remember that clients may need help specifically in identifying the situations where a strategy may be useful if they have problems generalizing learning from one setting to a new setting. One example from a substance use setting is a cue to think about triggers by remembering, "People, Places, Things."

STOP and THINK: A commonly used meta-cognitive strategy in substance use settings is "STOP and THINK." The client may be assisted in identifying situations in which it would be helpful to consider an action before taking it. For example, a client may recognize a strong emotion or an urge to use a substance. They are taught to say or think, "STOP and THINK," along with a script such as, "What is my goal? What will help me achieve my goal?" Another common adaptation is using the acronym STOP—"Stop, Think, Observe, Proceed." They may be directed to a cue card which provides helpful information that may be used in such a case, such as a help-line phone number. This skill may need to be practiced many times in session before a client learns to use it outside of a clinical session. Generalizing outside the session may require helping clients to identify their own high-risk situations and use a memory aid such as a sign or to use the strategy as requested.

ZOOM-IN and ZOOM-OUT: It is common for clients with executive functioning difficulties to have difficulty considering relevant details or seeing the big picture.[43] If a client is giving a vague account of a situation, the provider may cue the client to "ZOOM-IN" to details such as where they were, who was present, etc. A client may be cued to "ZOOM-OUT" as a cue to consider elements of the bigger picture that they might be missing. For example, a client may refuse a particular treatment program because they are not sure how to get there on public transit. You might ask them to ZOOM-OUT to consider whether they might attend if they knew how to get to the program and where they might access transit information.

Goal, Plan, Do, Review, Revise (Goal Management Training): Often, clients will have difficulty in setting specific goals and, in the absence of a realistic plan, fail to make progress. When Goal Management Training (GMT)[44] is applied systematically by a trained provider, it has been found to improve planning and problem-solving in people seeking treatment for substance use disorders as well as people in brain injury settings.[45] It is important to be consistent in the use of the strategy, commit the process to paper, and help clients systematically evaluate their progress and revise their goals. This is another strategy that would be practiced over a period

of time in sessions with a client before it is used more independently. Clients may need help to see the many situations in which developing a goal and planning for any task that is not going as well as they would like can be useful.

One commonly used version of this strategy includes the following steps:

- Set a goal. The goal should be specific and achievable, and have a timeline.
- Brainstorm possible solutions. The goal is to generate as many solutions as possible to be evaluated later. Creative thinking should be encouraged.
- The pros and cons of each potential strategy should be weighed.
- A specific plan to implement the chosen strategy should be created.
- The plan is implemented.
- The results of the plan are reviewed.
- Future plans are revised as required.

Other general strategies include:

- Using checklists and other organizing strategies.
- Using alarms and cues.
- Learning cognitive routines such as “STOP, think, and then act.”
- Providing feedback. Be clear with expectations and consequences (including things that are rewarding).
- Using routines, such as keeping important items like keys and wallet near the door.
- Setting a clear agenda for interactions. Let the person know what the goal is, your role, and what is expected.
- Helping people generalize skills from one setting to another.
- Help clients with difficulties in problem-solving to think through a “Plan B” if things do not go as anticipated.

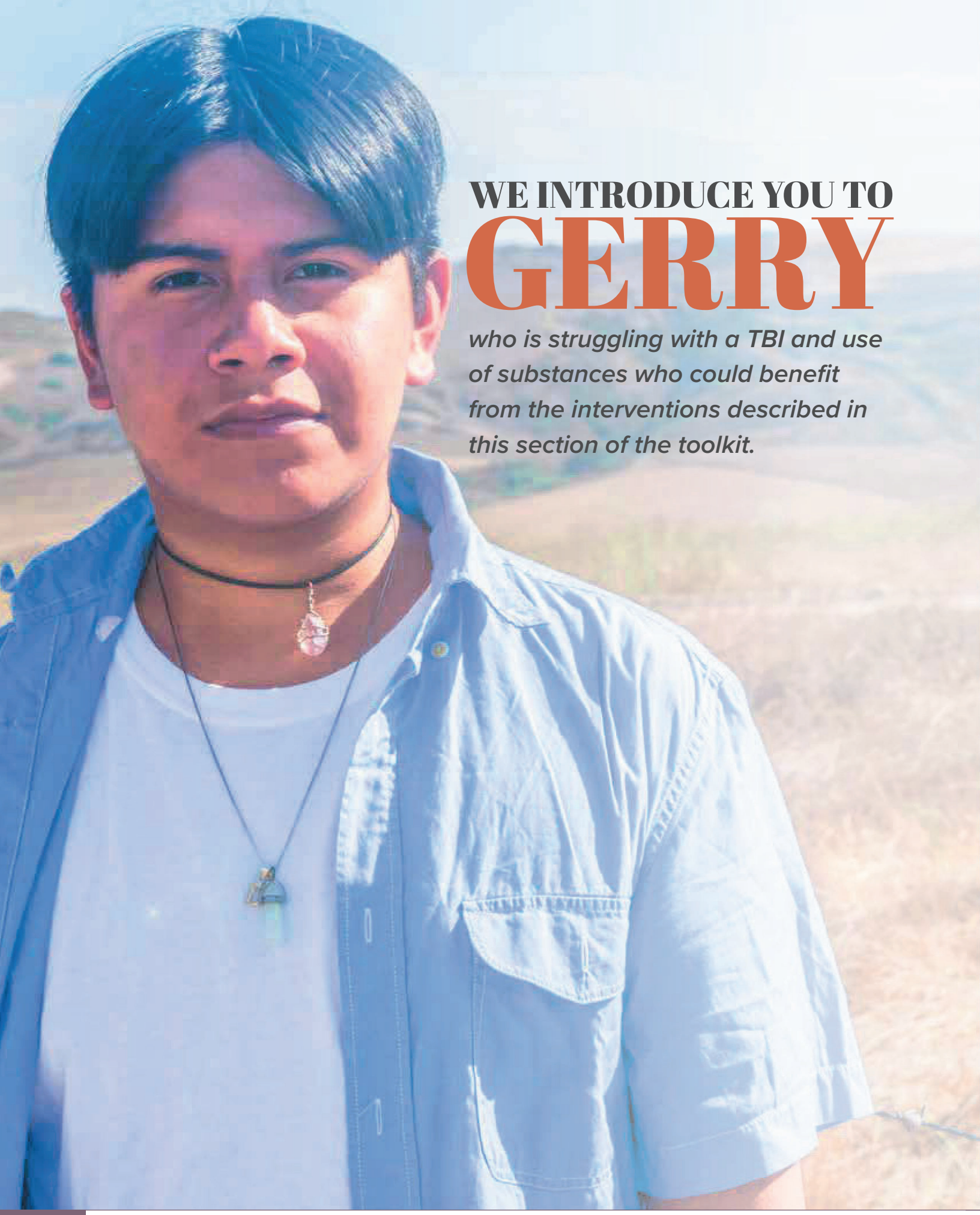
PROBLEM	EXAMPLES	WHAT TO DO
Difficulty getting started	Andrea seems to need someone with her, or she doesn't get to sessions. Without someone there, she would watch TV all day. When she gets to sessions, though, she works well and is glad that she came.	Teach Andrea that she may be having a problem with (alerting) attention. Create a plan with Andrea that includes a reminder or alarm to get ready to leave, the route to take, items to bring. Offer a small incentive for attending, such as a coffee or entry for a prize lottery.
	Eric can describe his homework assignments but doesn't seem to get any done.	Link the desired behavior to a routine "Eric, you seem to be having difficulty getting around to reading your notes from the session. What do you usually do in the morning? Would it work to leave your notes on the kitchen table to review after breakfast?"
	Heather sets goals for herself but doesn't get started.	Engage environmental supports "Heather, you seem to do best when someone works with you. Is there someone you could ask to work with you?"
Difficulty setting goals	Allen keeps talking about going back to construction work, even though he's been on disability for many years.	Cue Allen to "ZOOM-OUT" to consider the big picture. Ask evoking questions: "When did you last work?" "What have you done recently that is like work?" "What has kept you from work?" "Why do you want to work?"
Difficulty making plans	Allen tells you he's bored and wants to volunteer.	After the big picture has been discussed, consider asking Allen to "ZOOM-IN." "Allen, you said you're bored, and maybe you'll volunteer. Can we 'ZOOM-IN' on that? What have you enjoyed recently? How would you get information about volunteering?"
	Sandra agrees that she'd like to keep away from friends who continue to use marijuana and says she'll try. However, she can't say exactly how she'll do this.	Make a plan using the GMT framework. "Sandra, it's really hard to say 'No' when you don't have other things to do. Would it help to put some activities into your day? Would it help to practice being assertive with your friends?" "Sandra, you're setting a goal to find new friends and activities. Let's take out some paper and work through Goal, Plan, Do, Review, Revise."

PROBLEM	EXAMPLES	WHAT TO DO
Difficulty learning from mistakes When executive functioning is working well, making a mistake builds a memory that comes with a feeling of dread that helps you avoid making the same mistake again. When this function isn't working, clients may not have the feelings of anxiety or dread that encourage them to be cautious.	Jennifer has had trouble with her old friends the past three weekends. Even so, she doesn't seem at all worried about going back to them. She seems unaware of the difficulty she's likely to have and insists things will be fine.	This is a difficult problem to work around. Helping clients to accept structure in the environment is often the best alternative. Strategies from Motivational Interviewing often help. "Jennifer, going back to the neighborhood keeps creating trouble for you. Is there any plan we can make for the weekend that will give you someplace else to go? Who could help?" *(Use GMT Framework to plan.)*
	Dan seems to know that he's headed for trouble but doesn't take any steps to change course.	Use ZOOM-IN, ZOOM-OUT to help Dan see the bigger picture. "Dan, maybe the best way to avoid a problem is to get someone to work with you as a coach. Let's talk through this situation and see if we can predict where it might be headed. If you're not happy with the outcome, maybe we can think of an alternate plan." *(Use GMT Framework.)*
Difficulty thinking before acting Thinking ahead requires us to keep future consequences in mind and forgo current good feelings. This is an issue for anyone who is trying to change a substance use habit. However, for clients living with brain injury, the problem is multiplied. After a brain injury, a client may become impulsive. Sometimes, the problem is losing track of a future goal. Sometimes it's a limited memory of the harms that arise from using. Sometimes, it's simply difficulty resisting the pull of habits or strong cues and triggers.	Jerry expresses a desire to remain sober, but if he has more than a few dollars in his pocket and sees the opportunity to buy, he will. He's always remorseful later.	Minimize exposure to high-risk situations until a productive response is developed and rehearsed. Consider environmental supports such as avoiding carrying cash or cards. "Jerry, we've been practicing STOP in sessions. Let's make a plan to use Stop, Think, Observe and Proceed. When does the problem happen? Should we make a plan that you can use? Maybe it would be a good idea to avoid carrying your cash card with you." *(Use GMT Framework.)*
	Andy has a temper. When he gets upset with his roommate, he bolts out the door. In that mood, he's likely to go to the bar.	Practice STOP in sessions. "Andy, we've been using STOP to think things through before acting. Let's talk about how you'll know it's time to use that strategy."
	When Dean sees a drink, he seems to stop thinking about anything else.	"Dean, when you're with people who are drinking, it gets pretty tough. What would be the best way to avoid getting into that situation? Where would you be less triggered? Let's make a plan to stick to safer places." This may require direct cues from a caregiver or the use of signs or other visible cues.

PROBLEM	EXAMPLES	WHAT TO DO
Empathy Recognizing and responding to others' emotions is a complex process. Without a normal ability to feel an emotion, it can be hard to relate to others. This problem often does not resolve. Some clients just forget to think about things from the other person's point of view; some clients can't shift mental sets, and they get stuck on their own way of seeing things. People who have difficulty empathizing with others will find social interaction confusing and frustrating. Often, establishing simple rules of interaction will help. Encourage clients to identify a trusted person who can act as a coach in difficult social situations.	Geoff is often late for sessions but is angry when he is asked to leave after his appointment time has ended.	Help the client recognize the other person's point of view in a nonjudgmental way. This may require you to be blunter than you would typically be with other clients. However, delivered in a factual way, these statements can inform clients and help them respond more appropriately to the situation. "Geoff, I'm sorry that we don't have as much time as usual. I know that you don't like to wait for me. That's why I don't want to make my next client wait."
	Ellen can't understand why her sister doesn't come over more often, even though she is a single, working mother.	"Ellen, let's think about this from your sister's point of view. What else might she be doing? She has children, doesn't she?"
	Paul expects that you will put other tasks aside to answer his frequent questions.	"Paul, I have many things I need to do in a day. I need to ask you to wait so that I can meet all of my responsibilities. I can answer questions for five minutes."
	After Sarah talks about a troubling event from her childhood, Alan remarks: "So what? It was a long time ago."	In group, provide nonjudgmental feedback: "Alan, I know it's hard for you to relate to how Sarah is feeling, but it's helpful to show respect for her feelings now by listening to her and trying to understand." Outside of the group, provide instruction in an appropriate response: "Alan, I guess it's hard to understand why some people feel the way they do. The important thing is to show them respect by listening and try to see things from their point of view without arguing. It usually doesn't help to tell someone they are wrong about how they feel." "We can practice empathy together by identifying the feelings that came up in the group." Consider limiting participation in the group to sessions that are more educational in nature.

SECTION 4

RECOMMENDATIONS FOR SERVICE DELIVERY



WE INTRODUCE YOU TO GERRY

who is struggling with a TBI and use of substances who could benefit from the interventions described in this section of the toolkit.

Gerry is a 25-year-old who was referred for substance use. He's experimented with several drugs and uses about 2 grams of cannabis daily, but the substance of concern listed on his application for service is alcohol. After three attempts, he is present for his intake appointment. He was 25 minutes late. He didn't have his identification with him, and he seemed frustrated at the start of the interview. Gerry explained that he wasn't sure he needed treatment for his alcohol use—his girlfriend had asked him to attend the appointment. Once he settled in, Gerry seemed willing to talk about his substance use and could recognize some of the problems it caused. He was able to recognize that there had been times when his behavior got out of hand when he is drinking. He'd broken things in his apartment and had some bad falls. He gets along well with his family most of the time but had had a lot of arguments about his drinking. He's been able to go for weeks without drinking too much after an argument, but he states he keeps screwing up.

Although he had some trouble with timelines, Gerry was able to tell you about his history. He had a great family life and was one of five kids. He had an uncle and grandfather who had a problem with alcohol, and when he was growing up, they didn't keep alcohol at home. He finished high school. He has been working as a laborer on construction sites. He is hoping to get his license as a plumber. From the time he was of legal drinking age, he drank regularly with his friends. He didn't finish all of the intake paperwork, but he denied having any health problems when asked.

Gerry agreed to a second appointment but didn't show up. When he called to make another appointment, his girlfriend could be heard in the background. After six weeks of very limited progress, Gerry's provider began to question Gerry's motivation. He was often late or missed appointments. He never seemed to make it to groups or sessions unless someone dropped him off. He seemed sincere when he was talking about the changes he wanted to make but didn't follow through with any of the plans he made in sessions. He went to a few group sessions and sometimes made relevant comments. After about a half-hour or so, he'd start to fidget to the point that other group members were distracted. There were even times that he looked like he might be ready to fall asleep. He apologized but then did the same thing again.

Gerry's provider started to ask more questions about his history and learned that Gerry had been in a car accident at the age of fifteen. He was knocked out for twenty minutes or so. He had fractured his spine, and his rehabilitation team focused on that. His rehabilitation took a couple of years, and he missed a lot of school. School was a bit harder for him when he finally got back to it. He noticed that his memory wasn't as good and that there were some things about his personality that had changed, too. He had been a careful, kind of shy person before his injury but seemed to be more outgoing after the injury. Before his accident, he kept his room neat and his collections of sports memorabilia organized. After his injury, he was still interested in sports but had trouble keeping his stuff organized. He lost some of his friends because they thought his behavior was sort of childish. He was described as a bit of a hothead.

Recommendations for Service Delivery

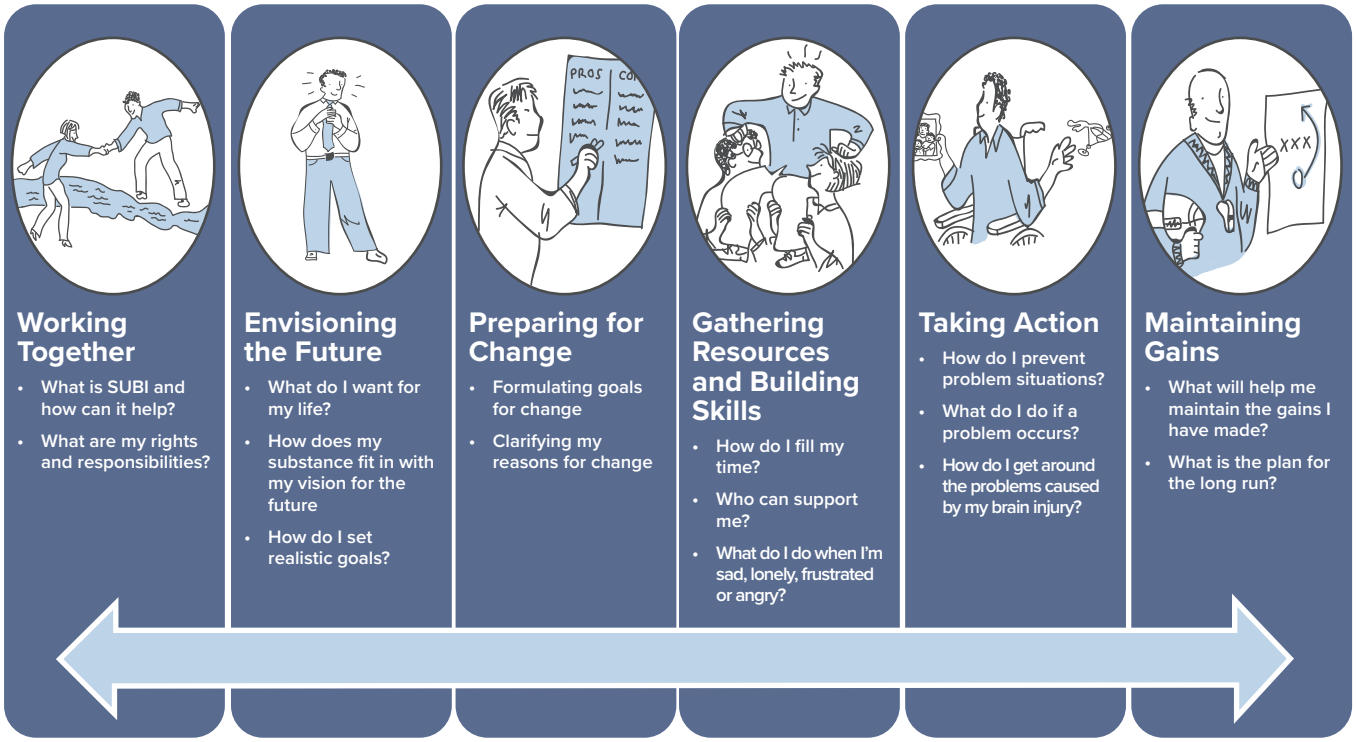
Programs geared to support individuals with concurrent disorders, including the impact of brain injury, will generally need to take a long-term perspective, anticipating that the course of intervention will take longer than for individuals with less complex difficulties. Many people living with brain injury will require more individualized support and case management to achieve their goals. The goals of case management will be largely determined by the client's stage of change with respect to their substance use, as well as their level of awareness of the difficulties that they are having as the result of their cognitive impairments. People who are less aware of the difficulties they are having with cognition and/or are not compensating for the difficulties they have in a meaningful way are much more likely to require environmental support to achieve their goals.

Like established models of care for people living with mental health and substance use disorders, intervention is best conceptualized as occurring in phases, each with its own set of key tasks.[47] The first phase, sometimes called engagement, is focused on doing whatever is necessary to support a client to become engaged in intervention and building expectations for intervention as well as for a strong working alliance. Once engaged, the goals of intervention may begin to focus on changes in behavior that reduce harm, support a healthy and engaged lifestyle, and may result in reducing substance use.

Tasks associated with this phase in intervention may focus on helping a client to better understand how substance use is interfering with achieving a more desirable lifestyle. Once the motivation for change has been well established, a phase of preparation may follow. Tasks associated with this phase often include activities that directly compete with substance use but may also include preparing for referral to a structured treatment program for further intervention. Once a plan has been established, a phase of action will follow. When some success has been achieved, goals will turn to maintaining the gains realized through intervention.

The figures that follow provide an overview of the phases of care as adapted by the Substance Use and Brain Injury Bridging Project at Community Head Injury Resource Services of Toronto.

Client Introduction to Model of Intervention



Working Together

- What is SUBI and how can it help?
- What are my rights and responsibilities?

Envisioning the Future

- What do I want for my life?
- How does my substance fit in with my vision for the future
- How do I set realistic goals?

Preparing for Change

- Formulating goals for change
- Clarifying my reasons for change

Gathering Resources and Building Skills

- How do I fill my time?
- Who can support me?
- What do I do when I'm sad, lonely, frustrated or angry?

Taking Action

- How do I prevent problem situations?
- What do I do if a problem occurs?
- How do I get around the problems caused by my brain injury?

Maintaining Gains

- What will help me maintain the gains I have made?
- What is the plan for the long run?

Provider Guide for Intervention

Building Alliance

- Setting Norms/Routines
- Creating an Emotionally Safe Environment

Enhancing Motivation for Change

- Clarification of Personal Goals
- Building Discrepancy
- Fishing for Change Talk

Preparation

- Building a Schedule of Competing Activity
- Building a Social Network/Supports
- Setting Achievable Goals

Action

- Skill Building
- Specific Changes Strategies for Substance Use

Relapse Prevention

- Managing Lapses
- Building a Follow-up Plan

Key Considerations in Program Development:

Longer-term interventions and smaller caseloads may be required to adequately address clients' needs. Clients with brain injury present with greater symptom complexity and are likely to require longer periods of intervention along with more integrated aftercare supports.

Coordination with community partners will be needed. This will likely require actively reaching out to, and creating partnerships with, brain injury providers and other support agencies in the community.

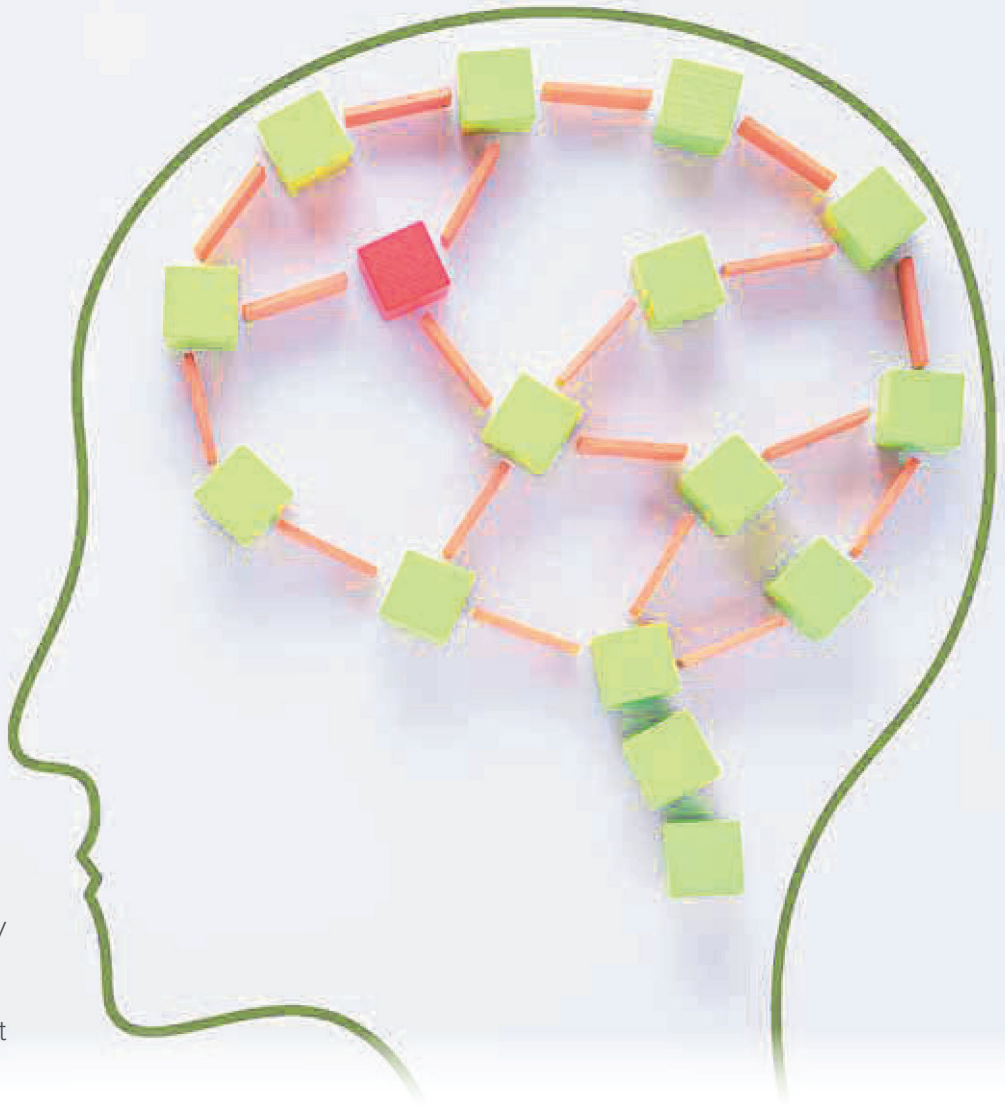
Providers should recognize the elevated risks for impulsive behavior, including suicide, and regularly assess suicide risk.

Providers should be aware of these elevated risks of pain, seizure, endocrine, and neurogenerative disorders and make referrals for assessment as required.

Addressing the Gap between "Say" and "Do" with Environmental Supports

As a general rule, the more limited or inconsistent an individual's level of awareness, the more likely they are to require environmental supports to accomplish their goals. Often, the difficulty the client is having in following through with therapy-related tasks is that they are distracted by their current environment and begin to neglect the goal that they had sincerely expressed in a therapy session. Failing to meet a goal may cause a client to avoid treatment settings. Difficulty with follow-through will often result in clients being labeled "unmotivated" or "uncooperative." The provision of environmental supports helps clients to stay in treatment and achieve treatment goals.

AWARENESS	STAGE OF CHANGE[48]	COMMON TASKS IN AN INTERVENTION
Little or no self-awareness	Pre-Contemplative. May not have identified the negative consequences of substance use. Not yet expressing a desire for change. May avoid discussion about substance use.	Emphasis is on environmental supports, working directly with a client to achieve goals. Establish rapport, and reduce barriers to attending intervention. Support participation in non-use-related activities. With permission, provide factual information about the impact of substance use. Support the client in developing and talking about their current goals and priorities. Support client to determine how substance use may interfere with stated goals/priorities. Harm-reduction strategies.
Intellectual	Contemplative. Expressing ambivalence about changing substance use.	Environmental supports remain primary. Support the development of awareness by predicting and tracking outcomes and supportive/non-judgmental feedback. Support client to weigh the risks and benefits of substance use.
Emergent	Preparation. Maybe taking small steps (e.g., seeking information)	Continued environmental supports with collaborative problem-solving and planning.
Anticipatory	Action.	Increased emphasis on self-management. Client may be taking on more responsibility for maintaining environmental supports or taking independent action.



Broadly defined, environmental supports include any type of external assistance provided to the client in the completion of a goal. Environmental support may range from walking a client through a process step by step to simply a cue to get started on something that they have agreed is important. In any case, it is the role of the clinician to work collaboratively with a client to determine what sort of support might be most useful and to assist the client in arranging that support and monitoring the outcome. It may be that, once a routine has been built to accomplish a task, such as taking medication, attending groups, or participating in some activity, environmental support can be reduced to allow for more independent functioning.

One concern that arises with therapists is that taking responsibility for the follow-through on a goal may instill helplessness or dependence in a client. However, supporting a client in meeting a goal is much more likely to lead to the kind of positive momentum that fuels future goal attainment. Plans for environmental support may include encouraging the client to take more control of the situation as they become more successful. Some clients may feel that they should be relying on "willpower" or their own abilities and feel ashamed to accept support. In that case, the role of the therapist is to normalize the need for support and to assist the client in formulating the right support. The therapist may also propose options for the client. Most often, environmental supports are best accepted and most effective if they are the result of collaborative goal setting and planning with the client.

Strategies to develop environmental supports:

1. Confirm that the client is interested in achieving the goal.
2. Identify barriers to goal completion.
3. Identify potential supports in the form of cues, planning, or direct or behavioral support to initiate.
4. Negotiate the right level of support with the client. Support clients in identifying the barriers, and consider what they might find helpful.

Below are some examples of using environmental supports to address the cognitive difficulties you observe.

WHAT YOU OBSERVE	POTENTIAL BARRIERS	CUE	PLANNING	DIRECT	BEHAVIORAL
Missing Appointments.	Memory: Forget appointment time. Initiation: Miss cues that it is time to go. Neglects goal.	Alarm in phone. Wall calendar.	Use Goal Management Training. Does the client have transportation, have a fare, and know the route?	Escort to appoint-ment. Phone-call reminder.	Incentive for attendance and task completion. Eliminate potential distractions occurring before or during the appointment.
	Gets distracted by trigger.	Gets distracted by trigger. Goal sheet to remind the client of goals.	Take a different route to avoid triggers.		Plan for activity that will compete with trigger situation (e.g., attend a meeting or time with a supportive friend).
Not Completing Assignments.	Forgets or gets distracted.	Cue between sessions.	Make a plan for a particular time and date to complete the assignment.	Complete assignment in session, or coach between sessions.	Offer an incentive for task completion. Pair tasks with something that occurs routinely. Start with very simple tasks, and gradually phase in more complex tasks.
Triggered to Use.	Having available money.	Reminder in wallet about budget.	Plan to leave cash and cards at home except for shopping for necessities.	Guardian or trustee for finances.	Offer incentive for completion of task.
Missing Medication Doses.	Forgetting dose or not taking medications at the correct time.	Daily dose packag-ing. Alarms in phone.	Packing list for day's activity. Simplifying dose regimens when there are multiple medications. Planning doses around routine activities (after evening news, before breakfast).	Directly dispensed and observed doses.	

Adaptations for Group Therapy

If you are offering group therapy, many of the strategies outlined earlier in this toolkit can be incorporated into your program. However, there are some additional strategies you may want to consider:

Create a safe space

- Use name tags.
- Limit groups to five or six participants. Too many individuals in the room may serve as a distraction to those with cognitive impairments.

Promote engagement

- Make individualized attendance plans that include items such as transportation routes and departure times.
- Allow for the possibility of clients leaving sessions early and staff having individual follow-up sessions.

Use a consistent format

- Give time to settle in/brief mindfulness activity.
- Remind group members of important rules/guidelines.
- Provide a brief summary of the previous group.
- Outline the goal for the current session.
- Make the sessions interactive, and build in time for breaks.
- Provide a brief summary at the end.

Promoting Accessible Programming

To support clients living with an Acquired Brain Injury (ABI) in finding and accessing services to meet their needs, partnerships across service sectors can help address complex needs, make cross-referrals more efficient, and reduce barriers to services.

Other key recommendations for service delivery include the following:

1. Evaluate existing resources for clients living with brain injury to identify gaps in services.
2. Consider developing partnerships with state and local brain injury providers.
3. Learn about the programs and entitlements designed for people living with a disability.
    a. Adult survivors of childhood injuries may qualify for benefits for people with a developmental disability, where available.
    b. Programs that screen for and document disability may support access to services and entitlements.
4. Adapt intake and intervention approaches to allow adequate time for developing rapport and engagement. Clients with cognitive impairment will usually require additional time for appointments and longer treatment duration.
5. Individuals providing outreach services to clients living with ABI may need smaller caseloads to support more intensive care (e.g., accompanying clients to appointments).

In addition to the key recommendations above, there are some specific recommendations for different aspects of service delivery, including outreach services, intake, and the physical space in which services will be offered.

Adaptation for Outreach Services

Many people living with cognitive impairment have difficulty identifying and seeking out services that would be beneficial. Resources across service sectors will help clients to find and benefit from your services. In addition, having links with providers in other sectors can serve as a source of consultation and referral. Joint training opportunities with providers of ABI services is one way to make connections and ensure that you are aware of services in your area. For example, offering to swap training or provide training on topics such as the identification of substance use disorders and available treatment opportunities with a provider of ABI services, who can provide similar information related to brain injury, will provide an excellent resource for staff members and begin the process of building referral relationships.

Many clients with brain injury will require a more assertive approach to care, which may include meeting clients in the community. They are also more likely to require case management services that include supporting a client to follow through with a referral.

Adaptation for Intake Services

In the section on assessment, you learned about ways to screen for brain injury as well as the resulting impairments. Often clients with cognitive impairments will have greater difficulty attending appointments on time, waiting for appointments, or following through with multi-stepped referral processes. To avoid barriers to care,

a simplified intake process that includes support to attend the initial appointment minimizes the requirement for documentation and forms to be completed before the appointment and enables you to gather needed information. Optimally, clients will be offered a choice in how to complete paperwork. Options should include the direct assistance of a staff member.

Community Linkages

Given the prevalence of cognitive impairment due to TBI and other brain injuries, substance use disorder treatment programs should consider developing long-standing linkages with brain injury providers. These may take the form of formal or informal consultation, cross-training cooperatives, and the development of care paths. Initial steps may include locating the local chapter of the Brain Injury Alliance or Brain Injury Society. Information about these organizations is provided in the resource section of this toolkit.

Considerations for Physical Space

Universal design principles should be used in the design of clinical programs, including appropriate accommodation for mobility limitations. Signage should clearly indicate program locations. Signage is also helpful for wayfinding, storage of items, and rules of program engagement. Physical cues to increase orientation, such as clocks and calendars, as well as daily program schedules, are also helpful to individuals who may have difficulty in tracking this information. Many clients with brain injury have difficulty managing noisy and/or busy spaces and may need a place to rest to manage fatigue. Having quiet areas for rest or waiting can be very helpful for clients who are easily overstimulated. Maximizing the connection between the indoors and outdoors with natural light is also a feature that supports orientation. Finally, common areas and waiting areas should be large enough and free of clutter to provide sufficient space for people using gait aids or wheelchairs.

Education about Substance Use and Brain injury

For clients who are aware of the cognitive impact of their brain injury, it may be motivating to consider the brain health benefits associated with abstaining from or reducing substance use. Resources for providing this education are included in the resource section of this toolkit.

Substance use after ABI can have the following effects:

- Delayed recovery from brain injury
- Worsening issues with balance, walking, communicating, and thinking (concentration and memory)
- Increased impulsivity
- Self-medicating as a coping strategy
- Increased risk of seizure
- Limited access to housing and healthcare
- Increased risk of another ABI

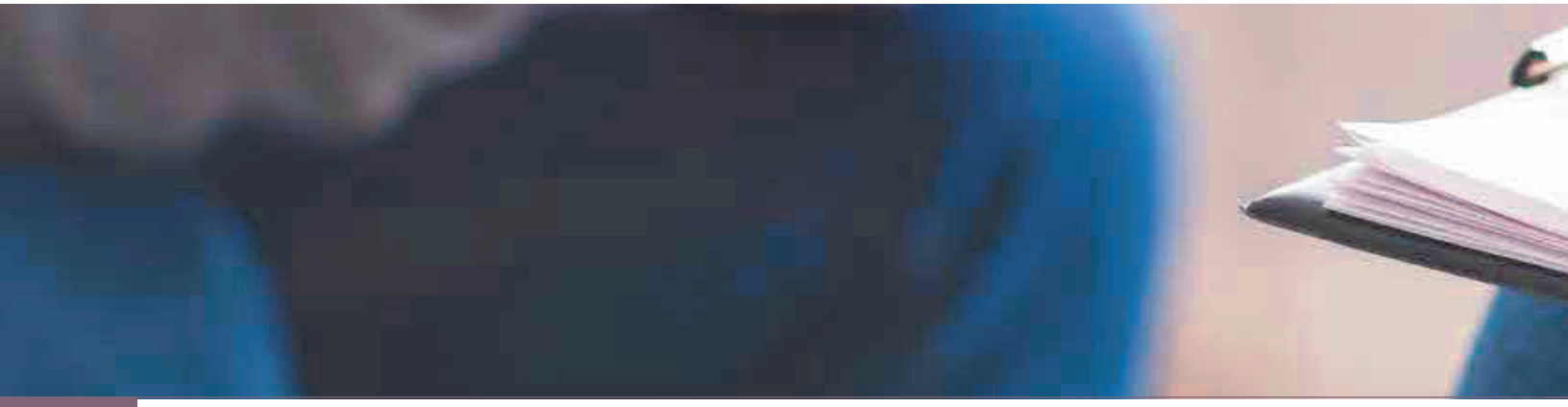
Motivational Interviewing

Because of its strong evidence base, Motivational Interviewing (MI) plays a prominent role in intervention in most settings supporting people who are living with substance use disorders.[49] MI is a collaborative, goal-oriented style of communication with particular attention to the language of change.[50] It is designed to strengthen personal motivation for, and commitment to, a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion." Supporting your client's success is related to the therapist's abilities to use the 'spirit of MI' to assist with achieving goals. The components of MI spirit include compassion (prioritizing the client's well-being), acceptance (nonjudgmental respect and empathy), and partnership and evocation (supporting a client to recognize and use their strengths in developing and implementing plans for a change).

As discussed in the Brain Basics Section, the brain structures responsible for processing rewards, evaluating risk, memory, and reasoning are all vulnerable to brain injury. We also know that the client's assessment of therapeutic alliance and the therapist's empathy are important in promoting the best possible outcome.[51] As discussed throughout this toolkit, people living with brain injury may face a number of barriers to developing therapeutic rapport, including difficulties with communication, reading and responding accurately to social cues, and the ability to recall interactions. It is also true that many people living with brain injury will have difficulty following through with their intentions. It has been observed that MI may result in positive changes in motivational structure (the desire for change) in people living with brain injury but may not be associated with the desired behavior change in the absence of increased structural and environmental supports.[52, 53] However, when combined with case management supports and incentive programs, Motivational Interviewing may be an important component of an intervention.

Based primarily on clinical experience, the following are considerations in adapting MI for people living with brain injury.

Promote engagement by encouraging positive affect in session. Clients with cognitive impairments are likely to have less specific recall of the content of the session. They will, however, develop an emotional memory that will be associated with the treatment situation. One way that positive affect can be elicited is by focusing on affirming a client's strengths is particularly important for individuals living with memory impairment. It may also be beneficial to elicit discussion about successful interaction or providing a positive experience, such as access to a drop-in, meals, or activities at the end of the session. Ending the session on a positive note may increase engagement. One way that positive affect can be elicited is by focusing on affirming a client's strengths. This is particularly important for clients with memory impairment.



Adaptation to MI Skills to accommodate brain injury:

Open-Ended Questions: Clients may have difficulty answering open-ended questions. It is helpful to provide information in the stem of the question. Rather than "Tell me about your substance use last weekend," it's better to provide information that will serve as a cue. "I know that you were going to visit your aunt, and you expected there to be a party. How did that go?"

Affirmation: Affirmation is particularly important for individuals who may have lost confidence in their abilities. Like many clients, those living with TBI may need direct assistance in identifying strengths, which can then be used as a source of affirmation.

Reflections: The client's response to reflections will help to clarify if they have understood complex reflections or analogies/metaphors. Clients may do best with simple reflections.

Summaries: Summaries should be frequent, brief, and provided in a multi-modal format, using notes or diagrams that are created in a collaborative way. Sessions should begin with a review of previous summaries.

Other recommendations:

- Use written notes, menus of topics, and visual cues to set a clear agenda for sessions.
- The therapist may need to directly influence the course of the conversation by reminding clients of the topic at hand.
- The therapist may ask permission to be more directive. For example, "We both want to make the best use of our time together. If we get off track, how can I let you know? Can we use this agenda to keep us focused?"
- Use the "ZOOM-IN and ZOOM-OUT" technique to elicit information.
- Engage client in taking an active role in planning and intervention.
- Time may be spent supporting a client's willingness to accept or collaboratively create needed environmental support when they are having difficulty in following through with their stated goals.
- Clients may benefit from visual cues, signs, or symbols of their commitment to making a change.
- Clients may find enhancing brain health particularly motivating.

SECTION 7

ACKNOWLEDG-MENTS

About the Mid-America Addiction Technology Transfer Center

The **Mid-America ATTC** serves Health and Human Services Region 7 and includes the states of Iowa, Kansas, Missouri, and Nebraska. Funded by the Substance Abuse and Mental Health Service Administration (SAMHSA), the Center is a collaboration between Truman Medical Center Behavioral Health and the University of Missouri-Kansas City School of Nursing and Health Studies, with a mission to support multidisciplinary practitioners, agencies, and communities in implementing evidence-based practices.

Land Acknowledgment

Mid-America ATTC is located in Kansas City, Missouri. The contributors from Kansas City, MO are standing on the ancestral lands of the Kiikaapoi (Kickapoo), Washtáge Moⁿzháⁿ (Kaw / Kansa), and (Osage) People. The territory expanded into areas now known as Arkansas, Illinois, Iowa, Kansas, Louisiana, Missouri, Nebraska, Oklahoma, Texas, and parts of Kentucky, Ohio, Pennsylvania, and West Virginia. We pay respects to their elders, past and present.

About the Mountain Plains Addiction Technology Transfer Center

The **Mountain Plains ATTC** serves Health and Human Services Region 8 (take out comma here) and includes the states of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. Funded by the Substance Abuse and Mental Health Service Administration (SAMHSA), the Mountain Plains ATTC is co-located at the University of North Dakota and the University of Nevada, Reno, with a mission of enhancing substance use disorder treatment and recovery services for individuals and family members, especially those residing in rural and remote areas.

Land Acknowledgment

Mountain Plains ATTC is located in Grand Fork, North Dakota. The contributors from Grand Forks, ND are standing on the ancestral lands of the Anishinaabe/ Ojibwe/ Métis, Assiniboine, Yanktonai, and Očeti Šakówin People. The territory expanded into areas now known as Canada, North Dakota, and Minnesota. We pay respects to their elders, past and present.

About the National Association of State Head Injury Administrators (NASHIA)

NASHIA serves as the leading source of information and education for state employees who support public brain injury programs, NASHIA provides information on national trends, best practices, and state contacts to federal agencies, state and national associations and TBI stakeholders across the country. NASHIA provides technical assistance to state governments and their partners and provides collective representation on federal policy issues through its membership.

Partnership with the National Association of State Head Injury Administrators

The Mid-America ATTC and Mountain Plains ATTC, funded by the Substance Abuse and Mental Health Service Administration, collaborated with the Traumatic Brain Injury Technical Assistance and Resource Center at the National Association of State Head Injury Administrators to provide this toolkit at no charge. Expertise from all Centers inform the content.

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Dr. Carolyn Lemsky is a board-certified neuropsychologist with more than 25 years of experience working in rehabilitation settings in the U.S. and Canada. She is currently the Clinical Director at Community Head Injury Resource Services (CHIRS) of Toronto—a Ministry of Health and Long-Term Care funded agency designed to promote community re-integration of persons living with the effects of acquired brain injury. CHIRS is home to the Neurbehavioural Intervention Team (NBIP), a specialized service supporting the needs of people living with acquired brain injury, high risk substance use and serious mental health conditions. At CHIRS she maintains an active clinical practice, along with her administrative, research, and training activities. Dr. Lemsky also provides clinical direction to the Substance Use and Brain Injury Bridging Project, a research and knowledge-transfer initiative initially funded by the Ontario Neurotrauma Foundation and the Ontario Ministry of Health. Along with her partners at the Center for Addictions and Mental Health (CAMH), Dr. Lemsky has provided consultation and training to service providers in mental health, substance use and rehabilitation settings across Canada and the US. In addition to frequent conference presentations, Dr. Lemsky has contributed book chapters and articles to the neuropsychology and brain injury literature.

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SECTION 8

MID-AMERICA AND MOUNTAIN PLAINS ATTC RESOURCES

The Mid-America and Mountain Plains Addiction Technology Transfer Centers (ATTCs) partnership with the National Association of State Head Injury Administrators (NASHIA) offers seven recorded offerings, with nationally recognized content experts, that focus on the intersection between brain injury and substance use disorders to include content on suicide, interpersonal violence, group/individual therapy implications in treatment, co-occurring disorders, justice-involved populations, family involvement, and basics of TBI and SUD.

You can access this content to include PowerPoint slides and recorded pieces of training about various topics of importance to behavioral health providers, particularly those working with people with substance use disorders, at the Mid-America ATTC website (www.attcnetwork.org/midamerica). This toolkit builds and expands on this content.

Traumatic Brain Injury and Substance Use Disorders:
Brain Injury 101 TBI & SUD: The Basics
This content provides an overview of brain injury, including information on what brain injury basics and the prevalence within the general population in the context of high-risk populations. It includes content on screening tools and strategies for supporting individuals with brain injury within substance use disorder treatment settings.

Traumatic Brain Injury and Substance Use Disorders:
Intimate Partner Violence (IPV), TBI & SUD
This content introduces the role of intimate partner violence and other abusive tactics—specifically mental health and substance use coercion--as additional drivers of substance misuse and addiction. A critically important consequence of IPV has been hidden in plain sight for decades—brain injury.

Traumatic Brain Injury and Substance Use Disorders:
The Intersection of Brain Injury, Suicide, and Addiction TBI & SUD: Suicide and Addiction
This content explores the relationship between suicide, TBI, and comorbid substance use. Research findings are presented as well as content regarding the brain mechanisms that may mediate this relationship.

Traumatic Brain Injury and Substance Use Disorders:
Part 1: Implications of Traumatic Brain Injury & Addiction

This content introduces the various physical, cognitive, and emotional issues related to this combination of disorders. Content on prevalence and scope of the problem of TBI and SUD is reviewed along with a full description of brain function, cognitive assessment, various modifications to the usual rehabilitation approach, and long-term care.

Traumatic Brain Injury and Substance Use Disorders:
Part 2: Effective Strategies for Group & Individual Therapy

This content examines the executive dysfunction and the process of applying standard SUD treatment to people with executive function difficulty and suggests modifications to the usual rehabilitation approaches.

Brain Injury and Substance Use Disorders: Implications for Justice-Involved:
Focus on Justice-Involved Persons with TBI & SUD

This content provides an overview of brain injury and co-occurring mental health and substance use disorders in justice settings. Content includes information on psycho-education approaches in serving this population plus accommodations and supports to improve client outcomes.

Traumatic Brain Injury and Substance Use Disorders:
Importance of Family Involvement in Treatment

This content describes the complex dilemma families find themselves in when a loved one develops the additional problem of a substance use issue. The impact of SUD on TBI recovery is reviewed, and the impact of SUD on ongoing cognitive and physical rehabilitation.

Brain Injury and Substance Use Disorders:
Implications of Use of Stimulants on Traumatic Brain Injury

This content provides a review of the pharmacological characteristics of stimulant medication and medications that provide a stimulant effect and reviews which medications are most effective in enhancing natural recovery and improving fatigue and cognitive functioning when a traumatic brain injury has occurred.

Notes

Mid-America (HHS Region 7)

ATTC Addiction Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

Mountain Plains ATTC (HHS Region 8)

ATTC Addiction Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

SAMHSA Substance Abuse and Mental Health Services Administration

NATIONAL ASSOCIATION OF STATE HEAD INJURY ADMINISTRATORS