Adapting Together: Efficacy of Interventions to Address the Needs of Individuals with Brain Injury within Health Care for the Homeless Sites

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Types of Strategies

External Strategies: those that external to the person. The long-term goal of these strategies is to enable individuals to compensate for impairments independently, with the use of the aids. (Haskins et al., 2012)

Internal Strategies: include any self-generated procedure whose purpose is to enhance conscious control over thoughts, behaviors, or emotions. This is achieved by teaching individuals to cue themselves to use an image, word, or action sequence as a trigger to take the appropriate steps to address a task or problem at hand. The long term goal of this strategy is enable patients to become so familiar with the process and adept at using it, that they can use it in any situation, even without external assistance. (Haskins et al., 2012)

Cuing: Using words, images, or action sequences as a trigger to take appropriate steps to address a task or problem at hand. The long term goal of these strategies is for clients to become so familiar with the process and adept at using it, that they can use it in any situation without external assistance. (Haskins et al., 2012)

> Example: Impulse control when angry. - Action sequence: Taking a deep breath, thinking of consequences, controlling angry impulse.

External Cues: Received from an outside source
- Can be beneficial despite level of awareness
  > Example: May have some recognition of missed appointments, is most likely to attend appointments when receiving a reminder phone call the day before

Internal Cues: Self-directed
- Requires higher level of awareness
  > Example: Recognizes need to use calendar, checks calendar at the same time daily to plan for upcoming appointments

- Type of cuing used will depend on client's awareness of problem/deficit areas
- External cues are generally easier to learn and apply first
- External cues may eventually be internalized with practice and learning

Insight and Awareness

Levels of Awareness
- Intellectual Awareness: individual is able to understand at some level, that a particular function or functions is impaired. A greater level of intellectual awareness is required to recognize some common thread in the activities in which they have difficulty
- Emergent Awareness: individual is able to recognize a problem when it is actually happening. To do so, they must recognize a problem exists (intellectual awareness), and realize when it occurs
- Anticipatory Awareness: individual is able to anticipate a problem will occur and plan for the use of a particular strategy or compensation that will reduce the chances that a problem will occur, e.g. keep and refer to a calendar to support memory for daily schedule

<div align="right">(Crosson et al., 1989)</div>

Building Therapeutic Alliance for Insight Development
- What works:
  - Education on how injury and experiences may lead to certain difficulties
  - Standard rapport building
  - Establishment of therapy as a support to achieve goals
  - Identifying external motivators
  - Examining if it lack of insight vs. lack of acceptance
  - Understanding that the part of the brain that allows for insight and self-reflection is what was injured
- What doesn't work:
  - Direct confrontation
  - Exposure in front of others (e.g. groups)
  - Not involving client in goal setting and therapeutic process

<div align="right">(Haskins et al., 2012)</div>

Assess for Insight:
- You may be able to clinically observe if client's interactions and performance do not match their report
- Have client self-rate performance before and after a task; does self-assessment match observed performance?
- Client may provide non-linear reasoning or excuses for why things did or did not occur, and may often externalize this and identify barriers in other people, environments, etc.

External Strategies to Build Insight:
- Gather data regarding problem areas to help develop awareness that a difficulty may exist
  - Data should be observable and easy to identify by client and provider
  - Tracking and recording the data should be consistent
  - Encourage client to write the information themselves to develop ownership of the process
- For specific problem areas, help client identify a tangible solution.
  - Client should agree with the goal; you may need to reframe the goal from their point of view
  - You may need to provide 2-3 options, all options should be things that are do-able

- o Focus on solutions, and stay away from over-analyzing past encounters if client is unable to process how they might have contributed to the problem.
  - o With success of solutions, reflect on how their actions and behaviors differed when they met success vs. when they didn't to guide behavior. Reflection should focus on observable actions the client can recognize
- Allow client to attempt a task with their strategies and methods
  - o If their attempt in not successful, offer strategies without indicating their way was incorrect
  - o Compare performance, and see if they are able to recognize that the strategy was a more effective method
  - o Encourage the strategy for additional situations
  - o Explore client's use of strategy, and discuss why the strategy might be needed
- Directly link the action to desired outcome or use rewards
  - o For less insight, limit time between action and reward if possible
  - o Explain how actions relate to the client's desired goal
  - o Keep these instructions concise and repeat them consistently

(Haskins et al., 2012)

Summary: Focus on observable actions/behaviors and use external motivators and rewards

Internal Strategies to Build Insight:
Internal strategies can start to be used if the above strategies are successful, or if the client is able to recognize when there is a problem, but not necessarily their ability to change it.

Therapies which can contribute to developing internal strategies:
- Motivational interviewing: Clients can learn to visualize goals, and connect how behavior can affect goal achievement.
- ACT: Focusing on the acceptance aspect of ACT and helping clients to begin to identify the struggle they may have with limitation. Looking at why they struggle, what the struggle costs them, and how acceptance can help them.

Learning and Teaching

Stages of Learning:
- Acquisition:
  - Clients learn taught features of the treatment strategy
  - Introduced materials and purpose of the intervention
  - Addresses awareness of problems and need for strategies
  - External strategies are most effective; clients may learn need to use strategies and internalize concepts
- Application:
  - Clients are able to apply strategies in structured and predictable environments
  - External support and feedback are typically required
  - The provider may continue to provide feedback on performance and ways to modify the strategy
  - Client may begin to use external cues independently, and begin to use internal cues
  - Benefits from continued practice with the frequency of external cues being reduced
- Adaptation
  - Clients are able to apply strategies to environments outside of sessions
  - Focus is on internalizing strategies
  - Transition to generalizing strategies, first with assistance of provider and then independently
  - Assigning "homework" is helpful to practice applying and generalizing strategies outside of sessions

<div align="right">(Haskins et al., 2012)</div>

- Clients may be unable to transition to Adaptation phase of learning
- Ability to transition between stages of learning can be a useful way to decide on needed support systems
- Ability to learn will be general across contexts and will likely not be task specific, as learning requires underlying cognitive processes

General teaching strategies:
- Repeat, repeat, repeat
  - Repeat at different intervals to assess if client is able to recall information over periods of time
  - Have client repeat information back to you instead of saying "yes" or "no"
- Keep organization strategies to **1-2 strategies**, individuals should not use a calendar, pocket calendar, blue card, AND phone….
- Have client use the strategies with you in the session to ensure they understand and can use the strategies.
  - This also helps you assess generalization – e.g. if client has not written anything down in between sessions, they are likely not using the notebook strategy without cuing.

Specific Instruction/Teaching strategies:
Errorless Learning: Prevents individual learning information from making an error

Idea is that not allowing errors causes the individual to learn and recall information correctly
- Without context or meaning, clients may guess answers and will not remember and distinguish correct from incorrect information

Strategies:
- Make a statement and have the person recall the statement without delay
  - "Your next appointment is Tuesday. What day is your next appointment?"
- Repeat information as much as necessary
- Cues may be needed throughout to prevent mistakes from occurring

Errorless learning is useful when information to be learned/remembered is important such as:
- Learning a phone number
- Taking medication/understanding medication doses
  - Any information that you do not want the client to remember incorrectly!
- Errorless learning is useful when individual presents with difficulty learning new information OR has less insight into deficits

Spaced Retrieval: Is useful if person has demonstrated ability to learn with errorless learning strategies
- Spaced retrieval is the same format as errorless learning, however, the person is asked to remember information over longer intervals of time.
  E.g.: Therapist says "My name is Caitlin." After one minute of discussion, therapist asks client what her name is.
- The interval of time can be increased as client is successful
- Information can be presented verbally and visually to help client initially learn the information

Chaining: Is useful when an individual is learning a complex task or sequence of behaviors that need to be completed
- In chaining, completing one step is a cue to complete the next step. Even if task is not as meaningful, individuals can learn individual parts of task and learn to link them together.
- Requires provider to identify steps of the task and break the larger task into smaller steps.

Forward chaining:
- The provider teaches the client first step with as much cuing as necessary to complete step successfully. The provider then demonstrates the remaining steps.
- Once the individual is able to complete the first step, the provider presents the second step in the same way, providing as much cuing as needed.
- This progresses until client is able to complete task.
  Example: Have the client open the calendar app on their phone. The provider shows the client the remaining steps to enter in the appointment into their phone.
  What would be the next step?

Backward chaining:
- The same method as forward chaining is used, however, instead the provider does the beginning steps, and supports the client to complete the last step of the task.
- As the client is able to learn the last step, the provider may then instruct the individual to learn the next to last step. In both cases, as much cuing as necessary is provided for successful completion.

When to use backwards vs forward chaining:

- Forward chaining can support the individual in learning to initiate tasks
- Backward chaining is more rewarding as person feels successful at the end - and thus may be more motivating.
- If one part of task is more important that the other parts… consider teaching the step with most importance.
  - Example: When cooking, have individual turn off the oven as the last step. This step is continually reinforced as the client will continue to practice this when learning other steps. The provider would likely use backwards chaining.

(Haskins et al., 2012)

Attention

Attention: Ability to control focus (to engage and disengage) despite presence of internal and environmental stimuli

Types of Attention   (Haskins et al., 2012)
<u>Focused attention</u>: basic level of attention, ability to recognize and acknowledge sensory information
- E.g. ability to recognize someone calling their name

<u>Sustained attention</u>: ability to maintain attention over a period of time
- Often what we address the most when we are talking about attention
- E.g. Reading a chapter of a book

<u>Selective attention</u>: ability to process information selectively and inhibit responding to unnecessary information
- E.g. Reading while listening to music or having the TV on

<u>Alternating attention</u>:
- Ability to shift focus between tasks or activities that have different cognitive or behavioral demands
- E.g. While reading, hearing the phone ring and able to answer it and have a conversation

<u>Divided attention</u>: ability to respond to two or more events at the same time
- Listening to the news while reading a magazine, able to identify what news is important while comprehending the magazine

Attention is an underlying skill necessary to build memories and internal awareness and recall.	Attentional difficulties can be present with mental health symptoms, learning disabilities, and brain injuries.	It is possible to experience one or multiple types of attention deficits.

Assessment of Attention
- Can be formally assessed on various cognitive screening tools and/or assessments
- Can also informally assess attention by timing how long an individual can stay on one topic or activity
- Can informally assess by giving client information, written or verbal, and asking them to rephrase the information in their own words
- Person is able to complete multiple steps in an organized and systematic way
- Performance declines when the environment is more distracting

External Strategies for Attention
- Set timers when person is engaged in activity. When timer goes off, have them assess and check-in
  - "Am I still paying attention?"
  - "When did I lose focus?"

- Use strategies to help re-focus or get back on track
  - Taking small breaks when attention decreases
  - Breaks can include: deep breathing, stretching, shifting positions

- You can use timers to help person shift from topic to topic
  - "We have ten minutes to talk about A, then 10 minutes to talk about B, etc"
  - Use the timer and set boundaries to help with transitions
  - "In 5 minutes we are going to end our session…"

- Before starting a task, help client write out the steps they need to complete the activity
  - Client can repeat steps out loud to themselves
  - Client can use written list as a clue as to what to do next
  - Break steps into small reminders or divide steps over multiple days
    - Phone alarms are great for this
    - Have person complete steps one at a time

- Minimize distractions
  - In office, reduce visual clutter for client
  - Turn down phone (if able) to minimize interruption of ringer
  - When reading text-heavy information, cover up unneeded parts of the page with blank piece of paper
    - This is also helpful for people with visual impairments

- Provide cues to help focus on important information
  - Highlight importation information to draw attention
    - E.g. On medication bottle highlight "Take with food"
  - Color code items or paperwork
    - E.g.: SSI information goes in the red folder, Medicare information goes in the green folder
- Help client prioritize
  - Use the "brain dump" strategy to have client express everything that is on their mind
  - From that list, pick 1-2 most important areas of focus
  - Refer to "brain dump" list later to identify next priorities

- Provide feedback to grow ability to self-monitor
  - "You said you wanted to talk about your relationship with your case manager today, but now we are talking about the food at daily bread. Let's shift back to the case manager."

General Tips:
Repetition is important!
- Use consistent strategies for multiple weeks in order to build skills, self-monitoring, and to assess whether or not it is truly effective.

If client's skills are improving with consistent use of strategies, increase the demands/difficulty.
- If client can sustain attention for 10 minutes with a timer, then move to 15 minute intervals
- If client can focus in quiet environment, add distractions
- Increasing demands will increase client's ability to generalize and apply strategies outside of sessions

> Help yourself with attention strategies.
> Very disorganized clients can cause us to feel or act disorganized or become distracted ourselves!

Internal Strategies for Attention
- Developing strategies for stress management/self-soothing in order to not be frustrated, upset, overwhelmed, etc.
    - Teaching clients to take 10 deep breaths can help them self soothe when upset.
    - Teaching clients to take one deep breath before making a decision when upset, can help them to be less reactive.
    - Teach a mantra that helps the client calm when upset or overwhelmed. Example: "It's okay I feel this way, I won't always feel this way."

- Mindfulness and awareness
    - Teaching mindful meditation, and practicing with clients in session can help increase attention as well as help clients calm.
        - Example-Drinking tea in a session and asking the client to draw their attention to how it feels to drink tea, to notice the warm calming sensation. Then to notice the flavor of the tea as they exhale.
            - This is good for clients who struggle with more traditional forms of meditation.
    - When practicing meditation it is important for clients to buy into the activity. This can be done by doing a simplified explanation of how meditation affects the brain.
        - It is also important to note that not everyone will be able to practice meditation, especially clients who have more severe brain damage.
    - Teaching clients to be mindful of emotions and exist with them, without being distracted by them.
        - Leaves on a stream exercise. *See Appendix B for example.*

- Sensory strategies
    - Clients can also practice grounding.
        - Example: Holding thumb in hand and focusing on how it feels.
    - Other self-soothing techniques and stress management may be smelling a scent which is pleasant, or picturing a calming image.
    - Clients may also benefit from using sensory strategies to increase alertness to help attention

Memory

Memory: ability to recall information

Requires:
- Attention: alertness and arousal. Attention is a prerequisite to memories, thus if there is an impairment in attention there will likely be problems with memory
- Encoding: ability to assign meaningfulness to information so that it can be recalled later
- Storage: transfer of information into long-term memory
- Retrieval: search for or organization of existing memory. Problems with retrieval may actually be difficulty with encoding or organizing information learned.

(Toglia, 2015)

Types of Long-Term Memory:
- Declarative: purposefully learned, stored, and retrieved. Requires *describing.*
  E.g. learning a phone number
- Procedural memory: relies on implicit learning, often involved with motor skills. Requires *doing*.
  E.g. how to dial a phone number
- Retrospective: memories of information that has already occurred
  E.g.: I saw my doctor last week
- Prospective: memory of events that will happen in the future
  E.g.: I have a doctor's appointment next week

(Toglia, 2015)

General recommendations:
- The strategy must be available at all times to client
- It is easier to link strategies with routines the client already has (e.g. use procedural memory!)
- Individuals need at least minimal awareness of memory deficits
- Allow for time, repetition, and practice for strategies to become effective

External Strategies
Writing things down:
- Use of a journal/calendar
- Create a daily schedule
- "To do" lists and shopping lists
- Labeling items
- Create visual lists
  - For those with lower reading levels, commonly identified images may also be helpful
  - Lists should be in sequential order

Using alarms or auditory reminders:
- Use phone alarms to help remind client of tasks to be completed
  - On Google calendar, multiple reminders can be set at different intervals
  - Make sure reminder allows enough time for action to be taken
- Using calendars on phone can also have alarms to complete an activity or attend a scheduled event

Using strategies to help organize and recall information:
- Learning to break tasks into small manageable steps
- Use of a digital recorder/smart phone app: free voice recorder apps are available

Organization:
- Place key items in the same place and where you are likely to remember them
  - E.g. placing wallet and phone in same pocket of backpack; placing pillbox next to toothbrush
- Reduce clutter as much as possible to make items easy to find
- Highlight key information to be remembered and followed later

Orient clients:
- Provide cues to dates and time
- Keep important items within view as much as possible
  - E.g. reminder on the door to check the stove and turn off the lights and take keys

> Remember to also address
> ATTENTION –
> if the client is not paying attention,
> they will likely not be able to
> remember the information.

Internal Strategies
Memory strategy training: also known as metacognitive strategy training
- Teaching clients to say a list of directions, appointment times, etc, to themselves to begin internalizing the information.
- They may start by reading information out loud several times first, and transition to reading the information to themselves

(Haskins et al., 2012)

Association: One of the most common strategies, where two or more items to be learned are linked or associated together.
- Visual-verbal and visual-imagery have been used to learn and recall people's names. Accordingly a name is linked with either a picture of the person or the image of a face.
  - Using mental pictures or images can help generate recall
- It is important for the client to generate the potential association to promote the personal meaningfulness or relevance of the association. This can be applied to many things in the client's life.

(Haskins et al., 2012.)

Organizational Techniques:
- One of the most frequently used organizational techniques is to use the first letter of a series of words to form a single word or pseudoword, simplifying the storage and retrieval of the information represented by that word.
  - This could be used for things such as a grocery list.
    - Example: **M**ilk, **E**ggs, **A**pples, **T**ortillas-**MEAT.**

(Haskins et al., 2012)

Address low self-efficacy: Albert Bandura (1977) has defined self-efficacy as one's belief in one's ability to succeed in specific situations or accomplish a task.

- Meditation: again this will be helpful to increase focus, which will in turn increase self-efficacy.
  - Practice in session with clients and start small.
  - It is also important to point out strengths and successes in treatment so the client remains motivated.
  - Have the client reward themselves when achieving a task and discuss each accomplishment.
  - Remember to make sure the client can achieve tasks, or they may become frustrated and drop out of treatment.

Address desire to hold onto items "in case I forget"
- This can be processed with clients in sessions. This can be worked through by working with clients to begin slowly trying strategies listed above, and external strategies, to alleviate this need.
- However, going slowly is the best pace for most clients. Moving too quickly could cause an early failure, which could damage the client's view of self-efficacy. (Haskins et al., 2012)
- Using strategies to reduce anxiety
- Help clients determine what information needs to be remembered, and what can be let go of

Executive Functioning

Executive function: encompasses an array of higher order cognitive abilities.
Integrated cognitive processes that determine goal directed and purposeful behaviors.

This includes:
- Planning: Predicting performance on a task, identifying steps needed to take (Haskins et al., 2012)
- Monitoring: self-assess performance, need to respond to variabilities in performance (Haskins et al., 2012)
- Switching/Shifting: Ability to transition between steps, tasks (Haskins et al., 2012)
- Behavioral self-regulation: (Haskins et al., 2012)
  - Impulsivity
  - Cognitive flexibility, inflexibility
  - Emotional control
  - Requires inhibition, or ability to ignore unneeded input from the environment
  - Inhibition: ability to select out relevant information
- Self-awareness and meta-cognition: insight into own performance; ability to self-cue and recognize need for cues; "thinking about thinking" (Haskins et al., 2012)
- Initiation: start of motor activity that begins a task (Baum & Wolf, 2013)
- Organization: physical arrangement of environment, tools, and materials to facilitate effective and efficient performance of steps (Baum & Wolf, 2013)
- Sequencing: Coordination and proper ordering of steps that comprise a task, requiring proper allotment of attention to each step (Baum & Wolf, 2013)
- Judgement/safety: employment of reason and decision-making capabilities to intentionally avoid physically, emotionally, or financially dangerous situations (Baum & Wolf, 2013)
- Completion: Inhibition of motor performance driven by the knowledge a task is finished. The person does not perseverate or keep going (Baum & Wolf, 2013)

- These components are often presented and addressed together in the literature
- Many overlapping strategies
- Executive functioning is required to identify and carry out tasks thus can be impacted by multiple other cognitive factors
- Individuals with executive dysfunction may find it difficult to think abstractly, and usually have problems with awareness, anticipating problems, analyzing situations, planning solutions, and executing solutions, maintaining a flexible approach to tasks, and monitoring themselves ((Haskins et al., 2012, p. 19)

Compensating for Executive Functioning Deficits
Strategies for attention
Assistance for problem solving
- May not be able to generate own ideas, will benefit from tangible instructions or options for resolution
- May need help to identify how coping strategies can be directly applied to situations

Minimize multi-tasking

- Identify situations where multi-tasking has had negative outcomes
- Identify and develop strategies to minimize this
  - E.g. Communication skills to hang up the phone to focus on task at hand

SMART goal setting
- Set goal to complete one task or activity at a time
- Focus on tangible, upcoming goals
- Help clients prioritize activities or tasks to accomplish first, second, etc.

Teaching strategies such as chaining (backwards or forwards)
- Helps to develop sequencing and attention skills
- Helps to develop skills to break tasks into smaller pieces

Strategies for low initiation:
- Timers/alarms
- Schedules and routines

Strategies for poor organization:
- Structure
  - Environment: minimize distractions; encourage completing more difficult tasks in quiet location
  - Provide step by step instructions, visual cues or checklists
  - Help to discard irrelevant or unneeded items or information

Poor organization:
- Teach clients to slow down and prepare for tasks before starting
  - E.g. reading a recipe: most effective way is to read through ingredients and get them out before cooking gets started; also beneficial to review steps of recipe before beginning

Strategies for sequencing:
- Prompting for each step of task
- Breaking down tasks into smaller parts
- Use strategies for attention to keep attention
- Use strategies for memory loss to help recall steps

Strategies for judgement/problem solving:
- Errorless learning
- Visual cues
- Direct feedback on options that are acceptable versus not
- Practice generating possible outcomes or consequences of actions/behaviors

Strategies for completion:
- Alarms/timers to stay on task
- Revisiting purpose/goal set
- Limiting time spent on tasks to sustain attention
- Identify concrete limitations as to what indicates being "done"

Internal Strategies for Executive Functioning

Increasing self-awareness
- Asking clients to evaluate their own progress can give us insight into their self-awareness.
- This can lead to a discussion of where they are vs. where they believe they are.
- Clients can also gain self-awareness from practicing mindfulness, and recognizing physical reactions to emotions.

Cognitive flexibility
- Cognitive Behavioral Therapy is a good way to help clients begin to experience cognitive flexibility.
- Teaching clients there is more than one way to think about a problem, and usually more than one answer.
- This can be practiced by asking clients how they think about problems in their lives and then helping them find flexibility in solving those problems.

Self-talk procedure
- Verbalize plan of action before doing.
- Self-talk or speak steps of task out loud while doing it.
- This can hopefully be internalized over time.

Goal-Plan-Do-Review
See example from Haskins et al. (2012) in Appendix A

Problem solving
- Stop- Raise awareness of your own problem solving and attention. "What is the task that I want to accomplish?"

- Define the Problem- List the steps. Take control by taking time to stop and think. "What are the essential parts of the task or activity? What ability and skills are likely to influence performance? How likely am I to be successful?"
- Learn the Steps- Identify strategies for use during task performance. Perform task. Self-monitor cognitive limitations and emotional reactions.
- Check- Self-evaluation, peer feedback, therapist feedback, and modify goals as needed.

(Haskins et al., 2012)

Coping
- Teaching healthy coping.
- These can be self-soothing strategies, grounding, talking with peers, etc.
- Help clients practice in sessions when they become frustrated.
- Continue to discuss ongoing.

Developing self-efficacy to not doubt actions
- Build ability to understand focusing on moment's task is most important, minimize concerns for upcoming or things we can't control.
- Working with clients where they are, and finding small successes will help clients increase self-esteem, and self-efficacy.
- Practice mindfulness with clients by having them focus on short term tasks to begin, such as coloring.

- Increase activities and time of focus based on the client's ability.

Communication and Brain Injury

Language Basics

<u>Expressive</u>: is a broad term that describes how a person communicates their wants and needs. It encompasses verbal and nonverbal communication skills and how an individual uses language. Expressive language skills include: facial expressions, gestures, intentionality, vocabulary, semantics (word/sentence meaning), morphology, and syntax (grammar rules).

<u>Receptive</u>: describe the comprehension of language. Comprehension involves attention, listening, and processing the message to gain information.
Areas of receptive language skills include: attention, receptive vocabulary, following directions, and understanding questions.

<u>Aphasia</u>: may cause difficulties in speaking, listening, reading, and writing, but does not affect intelligence. Is dependent on what part of the brain was affected.
Someone may have one or all of these:

- Difficulty producing language:
    - Experience difficulty coming up with the words they want to say
    - Substitute the intended word with another word that may be related in meaning to the target (e.g., "chicken" for "fish") or unrelated (e.g., "radio" for "ball")
    - Switch sounds within words (e.g., "wish dasher" for "dishwasher")
    - Use made-up words (e.g., "frigilin" for "hamburger")
    - Have difficulty putting words together to form sentences
    - String together made-up words and real words fluently but without making sense
- Difficulty understanding language:
    - Misunderstand what others say, especially when they speak fast (e.g., radio or television news) or in long sentences
    - Find it hard to understand speech in background noise or in group situations
    - Misinterpret jokes and take the literal meaning of figurative speech (e.g., "it's raining cats and dogs")
- Difficulty reading and writing:
    - Difficulty reading forms, pamphlets, books, and other written material
    - Problems spelling and putting words together to write sentences
    - Difficulty understanding number concepts (e.g., telling time, counting money, adding/subtracting)

<u>Apraxia</u>: Individuals with apraxia of speech know what words they want to say, but their brains have difficulty coordinating the muscle movements necessary to say all the sounds in the words.

(American Speech-Language-Hearing Association, n.d.)

Tips for communicating TO your client with a brain injury
- Use positive statements and empathy
- Avoid arguing
- Keep statements simple, and **emphasize important information**.
- Go at your client's pace, which may be slow.

- Encourage them to use strategies for attention and memory (such as writing things down)
- When setting boundaries, be clear and direct.
- Offer to repeat information, versus the client asking.
- Ask the client to repeat information back to you.
- Limit options from which the person must choose to avoid confusion.
- Try not to speak for the person or try to fill in what they are trying to say.
- Try not to talk down to the person.
- When communicating with the client, gently help the person get back on track if there is a lull in conversation
- If they ramble off the topic, try to get them back on track. If off track, say "I'm confused" or "I'm getting lost."
- Occasionally, summarize or restate what the person is saying or asking. '
  - Try to avoid interruptions or saying, "You're rambling off topic."
- Be firm and respectful when setting clear boundaries.
- Respond to inappropriate ideas but maintain focus on discussion. Provide support and reassurance while conversing with them.
- Try to avoid overreacting.
  - Try not to react to exaggerated or inappropriate responses.
  - Understand that the client's frustration and anger may actually come from true frustrations and not misperceptions.
  - Causes of frustration may be:
    - Some of those reasons may be being told no,
    - When confronting a difficult task,
    - Loud and competing noises,
    - Too much stimulation
    - Abrupt changes
    - Feeling confused may cause agitation or frustration

Tips summarized from: Making a Difference #8: Communication, which is available at:
http://www.brainline.org/content/multimedia.php?id=4822

Communication skills to teach clients with BI
Teaching a client to communicate can be a difficult process. It is important when teaching communication, to make sure the client knows how to listen to and understand others.

- This can be done by teaching a client to recognize their own emotional responses and communication style. For some clients this can be difficult, and beginning interventions may be a simple feelings chart.
- Have clients begin to identify their feelings in sessions with a feelings chart. Discuss with them how they might communicate this feeling verbally and nonverbally. If clients begin showing understanding in this area, you can try to globalize this, and help the client to begin identifying verbal and nonverbal cues of others. You could practice this by trying to help them identify your own cues in sessions.

Basic aspects of social functioning a client might need:

- Greeting others
- Introducing oneself

- Listening
- Giving compliments

- Initiating a conversation
- Selecting and maintaining a topic

- Being assertive
- Coping with a disagreement

Going over these in sessions with clients and practicing with them can be a helpful and safe environment for the client to practice without judgement. (Haskin et al., 2012)

- Ask clients in sessions to self-assess communication skills. It is important to know where clients think they are compared to what we see.
- Have client select a topic of conversation with you and try to maintain conversation.
- Teach social boundaries and why they are important. This can lead into a discussion and practice of assertive communication.
- For clients who are able, practice mindfulness of emotions, so clients can achieve better self-awareness.
- Discuss barriers to communication with clients.
- Assign homework: Research two places where you might meet new people, and go to to one of them. Ask a close friend for specific feedback of active listening skills.
- Using errorless learning: A clinician could say a statement sarcastically, and then if the client is not sure, if the statement was sarcastic or friendly, the therapist would inform them, rather than them guessing. This would be repeated, because errorless learning involves closely guided instruction with repeated rehearsal, and practice of newly learned information. (Haskins et al, 2012)
- Cognitive Behavioral Therapy: emphasizes awareness of emotional triggers, repetition, positive self-talk, and structured assignments.

Goals for clients could be:

I will ask on topic questions in conversations.
SMART: I will ask on topic question in conversations once a week.

I will not interrupt during a 15 minute conversation.
SMART: I will interrupt less than 4 times in a 15 minute conversation.

I will introduce myself to strangers.
SMART: I will introduce myself to one person once a week.

I will be able to identify emotions in pictures.
SMART: I will be able to identify 3 of five correct emotions from pictures in sessions, during each session.

References

American Speech-Language-Hearing Association. (n.d.). *Aphasia.* Retrieved from:
  http://www.asha.org/public/speech/disorders/Aphasia/

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Brainline. (n.d.). *Making a Difference #8: Communication*. Retrieved from:
  http://www.brainline.org/content/multimedia.php?id=4822

Crosson, B., Barco, P. P., Velozo, C. A., Bolesta, M. M., Cooper, P. V., Werts, D., & Brobeck, T. C. (1989). Awareness and compensation in postacute head injury rehabilitation. *Journal of Head Trauma Rehabilitation, 4*, 46-54.

Haskins, E. C., Trexler, L. E., Cicerone, K., Dams-O'Conner, K., Eberle, R., Langenbahn, D., & Shapiro-Rosenbaum, A. (2012). *Cognitive rehabilitation manual: Translating evidence-based recommendations into practice*. L. E. Trexler (Ed.). Reston, VA: ACRM Pub.

Toglia J. (2015). Presentation from Mercy College: *Cognitive Rehabilitation: Assessing and Promoting Everyday Performance*. Dobbs Ferry, NY: Author.