Cognitive Behavioral Intervention (CBI)

Brief Introduction
Cognitive behavioral interventions (CBI) refer to a variety of related interventions that are used to alter behavior by teaching individuals to understand and change thoughts and behaviors.

Cognitive behavioral intervention is based on the belief that behavior is mediated by cognitive processes. Learners are taught to examine their own thoughts and emotions, recognize when negative thoughts and emotions are escalating in intensity, and then use strategies to change their thinking and behavior.

Description
These interventions tend to be used with learners who display problem behavior related to specific emotions or feelings, such as anger or anxiety. Cognitive behavioral interventions are often used in conjunction with other evidence-based practices including social narratives, reinforcement, and parent-implemented intervention.

CBI meets evidence-based criteria with three group design studies and one single-case design study. According to the evidence-based studies, this intervention has been effective for elementary school-age learners (6–11 years) to high school-age learners (15–18 years) with ASD. CBI can be used effectively to address social, communication, behavior, cognitive, adaptive, and mental health outcomes.

Brief Adapted from:

Matrix of CBI by Outcome and Age (years)

<table>
<thead>
<tr>
<th>Social</th>
<th>Communication</th>
<th>Behavior</th>
<th>Joint Attention</th>
<th>Play</th>
<th>Cognitive</th>
<th>School Readiness</th>
<th>Academic</th>
<th>Motor</th>
<th>Adaptive</th>
<th>Vocational</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>6-14</td>
<td>0-15</td>
<td>0-15</td>
<td>0-5</td>
<td>0-6</td>
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Cognitive Behavioral Intervention (CBI) Research Summary

<table>
<thead>
<tr>
<th>Ages</th>
<th>Skills/Intervention Goals</th>
<th>Settings</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5-65 years</td>
<td>Behavior, social</td>
<td>Clinic</td>
<td>EBP</td>
</tr>
</tbody>
</table>

*The information found in the Research Summary table is updated yearly following a literature review of new research and this age range reflects information from this review.
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Research


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Steps for Implementation

**Cognitive Components**
Teachers instruct students on strategies that promote self-regulation, increase positive behavior, and reduce inappropriate behavior. This includes giving direct instruction in a specific problem-solving strategy, self-instruction, communication skills, relaxation, and situational self-awareness. Components of problem solving include:

A. **Recognition of the problem.** Students are instructed in problem recognition and given opportunities to practice recognizing problem situations. Role-playing, case studies, and both real and hypothetical problems are used to help students recognize the existence of problems.

B. **Define and articulate specifics of the problem.** Students are allowed to practice describing the problem, including who is involved, where the problem occurred, and what happened. Students are encouraged to view the problem from their own perspective. Question generation and task analysis of situational problems assist students in learning how to articulate problems.

C. **Develop a procedural process for solving the problem.** Students are explicitly taught all steps in the problem-solving process through teacher modeling. Students are then provided ample guided practice with corrective feedback and positive reinforcement, as well as independent practice. Students learn to order the steps in a sequential process that helps lead to an appropriate solution to the problem. Role-playing, group discussion activities, and self-monitoring are effective approaches to teach the systematic process.

D. **Generate alternative strategies to approach the problem.** Using a systematic procedure, students learn to generate alternative solutions through brainstorming multiple strategies for solving the problem. Students are taught to respond to the probe, “What are your possible solutions?” Because learning to generate alternatives is positively related to increasing problem-solving skills and social adjustments throughout life, generating alternatives is a crucial component of problem solving.

E. **Evaluate the consequences of each generated alternative.** Students learn to identify the most effective solutions. Students are encouraged to identify the most feasible alternatives and generate possible consequences for each alternative in terms of benefits and risks. Students are encouraged to select alternatives that are safe and fair. This component provides essential practice in evaluating consequences and making appropriate future choices.

F. **Decide on a course of action and try it.** Students are directed to decide upon the best alternative to resolve the problem and to try the selected alternative. Students are allowed to rehearse and implement the solution and then discuss consequences.

G. **Evaluate the effectiveness of the selected alternative.** Students are assisted in determining if the solution worked. Students are made aware that the initial choice may not always resolve the problem and other alternatives may need to be considered.
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Behavioral Components
The behavioral components of CBI incorporate systematic procedures for rewarding students for the reduction of aggressive behavior and the use of problem-solving strategies. The behavioral components generally include the use of social reinforcers of praise and recognition, listening to CDs, playing computer games, token economy point systems, and behavioral contracting. Behavioral contingency contracts are most frequently used to motivate students toward desirable behavioral change. The following steps are involved in writing a contingency contract:

A. The teacher determines and outlines the specific behaviors required of the student.
B. Together, the teacher and student identify the reinforcement for which the student will work. The designated reinforcement should only be available to the student for performing the specified behavior.
C. The teacher writes up the behavior contract, specifying the exact terms of the contract, including the amount and type of behavior required and the amount and frequency of the contingent reward. The contract should be fair to both the teacher and student and stated in positive terms. The contract should also state the method and frequency for data collection.
D. The teacher meets with the student to explain the contract and ensure agreement. Both parties sign the contract.
E. The teacher monitors for the specific behavior and rewards the student according to the terms of the contract.