A Basic Introduction to CBT Principles

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For the past few years, there has been increasing attention, and corresponding confusion regarding the relationship between cognitive behavior therapy (CBT) and applied behavior analysis (ABA) for use in schools. In particular, there is confusion regarding situations as to which one is more appropriate to use in favor of the other. Also, can the procedures ever be combined to provide for more comprehensive programming to address a student's needs?

Actually, ABA and CBT share many similarities. One approach is not necessarily "better" than the other. Just like any treatment determination, figuring out which is most appropriate to use can be based on a blend of initial assessment, clinical judgment, and subsequent progress monitoring. Some areas where they share commonalities include:

i. Each involves targeting specific behaviors;
ii. Both ABA and CBT emphasize proceeding gradually, shaping behaviors or skills over time to reach targeted goals;
iii. Both are based upon basic learning principles;
iv. Intervention can be implemented on an individual basis or at the group level;
v. Both are data-based, empirically-derived methodologies.

It probably isn't necessary to review ABA principles beyond mentioning that it is based upon operant learning theory and the "ABC" model. CBT similarly incorporates basic principles of learning, e.g., reinforcement, extinction, and punishment and uses a slightly different "ABC" paradigm. Here, "A" stands for the "Activating Event," a trigger, such as being called upon in class by the teacher. "B" is the immediate, and often automatic, beliefs and emotional reactions that occur (is triggered) in response to the situation. For example, a student might have the thought, "What's the point in answering? I'll just get it wrong," and experience the bodily sensations of being frustrated (that is, tensing of upper body, accelerated heart rate, etc.) (B) right after being called upon (A). However, unlike in ABA, these are private events that represent subjective internal experiences that are not readily observed. In essence, it resides inside the "black box." The presence of such thoughts results in some form of maintaining consequence (C). This could be refusing to answer the teacher's question, using a lowered voice, limited eye contact, or a sudden request to use the restroom. Regardless, the consequence is the result of the beliefs and emotions that were triggered in response to the activating event. In CBT jargon, any of these consequences might serve as a "safety" or "self-soothing" behavior because they temporarily reduce the level of anxiety experienced, a form of negative reinforcement. While this can produce short-term relief, it can also set the stage for long-term problems as these beliefs and emotions result in more consistent escape behaviors that interfere and negatively impact the child's overall performance and well-being.

In CBT, there is constant two-way interaction between our thoughts, emotions, and behavior. Thinking, "He's just saying that, no one likes me," when being greeted can explain why someone might ignore the greeter and not respond. Over time, this can easily produce feelings and emotions that are consistent with sadness and lead to social isolation or more chronically negative reactions in social situations. Such thought distortions are believed to be a major component fueling depression, coloring a seemingly neutral event with negative attributions. As such, it departs from the classical ABA paradigm in that thoughts are viewed as a legitimate source of content to target, restructure and change. To make behaviors measurable,

individuals can self-report their thoughts, making them observable. Both ABA and CBT can include the use of immediate reinforcement which is delivered immediately following behavior. However, the CBT model also views reinforcement as being informational in nature. Telling a child that he can watch TV after he completes his homework increases motivation and provides him a means for being more self-reliant. It can be further enhanced by use of social modeling, where a child observes positive events occur for a peer after prosocial behaviors are displayed.

In treating a child with separation anxiety, the therapist may ask them to rate the level of distress experienced when they are away from a parent (sometimes called SUDS, Subjective Units of Discomfort, as a means of rating of their emotional state). A core treatment element where they further examine their thoughts to expose irrational or distorted thoughts ("I can't handle being away from my parents") may result in a lower level of discomfort, leading to an increased ability to tolerate and manage the feelings associated with such events ("It may be hard, but I think I can be away from them for at least a short while"). In both ABA and CBT, practice through engaging in positive behavior is a core component, but in CBT the focus is on helping to reduce irrational thinking by replacing thoughts that are distorted with those that are more rational and logical in nature. It might not be uncommon for a child to meet with a therapist and use imagery, storytelling, or other depictions of events that mimic activating events and resulting beliefs with their corresponding physiological reactions. Treatment may involve helping them to logically understand the nature of their irrational thinking, leading to in vivo practice and reporting back to the therapist on the level of success or any problems encountered while completing the exercise. Just as with ABA, it is important to set initial goals so there is a high probability of success. CBT similarly uses successive approximations to reach target goals.

The question often arises about the ages, language development, and intellectual capacity. Ultimately all three factors carry some weight. For children who have average level language skills and cognitive abilities, 8 years old is probably a good lower age limit. But, with some modifications in the basic approach, it may even be possible to use CBT with a 6 year old. CBT can also be used successfully with children who have intellectual disabilities, usually at the mild level or higher, again with modifications to make the treatment and home assignments more concrete in nature, possibly with visual cues or pictorial explanations.

Case example using a modified CBT approach: Tim was a 14 year old with moderate intellectual disabilities and cerebral palsy. He was aggressive toward peers on a near daily basis, primarily at lunch time. The primary setting event usually involved him throwing away his food at the end of lunch. If anyone was in his way, he would push and sometimes dump his food on them, shouting "Get away." An initial FBA was performed and it was concluded that he was doing this for negative attention. Peers were instructed not to respond to his negative actions directly, however this had no effect upon the frequency of his behavior. Subsequently Tim was interviewed by the speech pathologist and the school psychologist. Throughout the meeting, he continually said "scared" whenever they mentioned throwing his food away. Through careful interviewing and taking him out to where the problem typically occurred, they determined that, related to his CP, he would become very "scared" because of fears that he would drop his food tray and the items on it while taking it to the trash can. A referral was made to the occupational therapist who then worked on his balance and control and taught him to make multiple trips. It was also determined that he tended to wait until the first bell rang, signaling the end of lunch. By giving him a vibrating timer that cued Tim to throw away his food earlier, he was able to do so without being in the middle of the student rush to get back to class. Once these strategies were implemented, the problem

reduced to a near zero level, with occurrences generally reduced in intensity and only occurring when he forgot to set his timer or took too long to make trips between his table and the trash can.

In addition to changing the environment and teaching him new strategies for throwing away food, focusing on his belief that dropping his food would get him in trouble was a key to this intervention. In hindsight, the original FBA that focused on his aggression was based upon a faulty conclusion, "attention from peers" as the reinforcing consequence maintaining his behavior. In fact, he had only been observed reacting negatively to peers when he was about to throw his food away. Helping him to practice handling his tray in a calm and controlled manner, reminding him that he would not get in trouble if his food fell on the ground, and also letting him know that he could tell the teacher he had "waited" to throw away his food, all served to reduce his level of anxiety and correspondingly, his frequency of aggression.

CBT is an effective tool for certain behaviors that do not have reliable antecedents, are based on internalized processes (that is, thinking patterns, unhelpful images, recurring memories based on past traumatic experiences), or involve complex emotional states that impact decision-making and lead to problematic behaviors.

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