Cognitive-Behavioral Interventions: Where They Come From and What They Do

Chris Hansen
Chief U.S. Probation Officer
District of Nevada

THE NEWS IS OUT and it’s not good, but it comes as no surprise to corrections officials. Presently, more than one in every one hundred adults in the United States is confined in local jails and state or federal correctional facilities (Warren, 2008). The United States incarcerates more of its citizens than any other country in the world. At the end of 2006, there were over five million adults under the supervision of federal, state, or local probation or parole authorities (Bureau of Justice Statistics, 2007). Due to the rising incarceration rates, many states face significant financial shortfalls and must make tough decisions regarding their correctional populations. In 2005, the State of Washington focused its attention on the long-term fiscal consequences of prison expansion. As a result, the State Legislature directed the Washington State Institute for Public Policy (Institute) to explore options to imprisonment. After a thorough review of existing programs and research, the Institute identified several Evidence Based Practices (EBP), such as cognitive behavioral therapy (CBT), that might be effective in reducing recidivism, thus alleviating the need for other pressing public needs” (p. 4). This may reduce the overall inmate population, but community correction agencies may see an increase in numbers of individuals under some type of community-based supervision. Correctional administrators continue to seek low-cost, effective treatment interventions to assist in reducing recidivism and stopping the criminal justice system’s revolving door, which has become the hallmark of corrections in the United States.

As noted by the Washington State Institute for Public Policy (2006) and many other researchers (Lipsey, Landenberger, & Wilson, 2007; Milkman & Wanberg, 2007; Przybylski, 2008; Pearson, Lipton, Cleland, & Yee, 2002; Wilson, Bouffard, & MacKenzie, 2005; Landenberger & Lipsey, 2005), CBT is one evidence-based intervention which shows promise in reducing recidivism. The purpose of this paper is to acquaint the reader with CBT, its history, and to explore several programs that have proven to be effective in reducing recidivism. This paper only broadly touches on several of the important researchers in the fields of cognitive therapy, behavioral therapy, and CBT. There are many others who have had an impact on these therapies and further exploration on the part of the reader is recommended.

Cognitive Therapy

Cognitive Behavioral Therapy is not a single method of psychotherapy; rather, CBT is an umbrella term for therapies with many similarities. CBT is a marriage of sorts between social learning theory, cognitive therapy, and behavioral therapy, all of which initially grew from experimental psychology (Weishaar, 1993).

From the cognitive therapist’s perspective, an individual’s personality is formed by central values that have developed early in life as a result of factors in the individual’s environment. These factors serve as the basis for the way the individual codes, categorizes, and evaluates their experiences and the stimuli they encounter. Cognitive therapists believe that psychological problems stem from faulty learning, making incorrect assumptions as the result of inadequate or incorrect information, and not being able to adequately distinguish between imagination and reality (Freeman & Davis, 1992).

Early views of cognition shaping one’s view of the world came from early Greek philosophers including Plato. Philosophers during the seventeenth and eighteenth century viewed the world around the concept of the mind controlling reality (Milkman & Wanberg, 2005). In the nineteenth century cognitive therapy was practiced by two early psychologists, Wundt and James, who defined their discipline as the science of mental life (Allen, 2006). Wundt and James’ research centered around cognition such as the way individuals perceived, stored, and used information. Allen (2006) notes, “The methodology involved subjects trained in introspection, who examined their own cognitive processes during experimental tasks. This phase of research was overtaken by the behaviourist framework during the 1920s, largely due to difficulties in demonstrating the validity of self-report data generated by intro-
Maconochie used a form of behavior modification (token economy) with prison colony tendent of the penal colony at Norfolk Island, familiar with the work of Maconochie, therapy at work is the efforts of Alexander who pioneered the precursor to parole. In glasses of alcoholics in an effort to cure their abuse through aversive conditioning. He would put rotting spiders in the drinking an innovative method that attempted to cure depressant medication. One study found that cognitive therapy was effective in reducing the symptoms of major depression in moderately ill patients who were non-psychotic (Rush, Beck, Kovacs, & Hollen, 1977).

Behavioral Therapy

Behavioral therapists oppose most of the tenets of psychoanalysis and the related dynamic therapies. They believe that psychoanalysis is time-consuming and not based upon a scientifically verifiable empirical base. The behavioral therapist is focused on the client’s behavior, not on his or her internal mental state (Korchin, 1976).

As with cognitive therapy, behavioral therapy has deep roots in history. One of the earliest recorded behavior modification treatments was implemented in first-century Rome by Gaius Plinius Ceclius Secundus (23-79), also known as Pliny the Elder. Pliny the Elder was a military officer and legal advisor during the reign of Nero (Barren, 2007). Pliny developed an innovative method that attempted to cure alcohol abuse through aversive conditioning. He would put rotting spiders in the drinking glasses of alcoholics in an effort to cure their alcoholism (Maultsby, Jr. & Wirga, 1998).

Another example of early behavioral therapy at work is the efforts of Alexander Maconochie. Many students of corrections are familiar with the work of Maconochie, who pioneered the precursor to parole. In 1840, Maconochie was appointed superintendent of the penal colony at Norfolk Island, located 1000 miles off the coast of Australia. Maconochie used a form of behavior modification (token economy) with prison colony inmates. He introduced a mark system where inmates could earn early release through good institutional behavior and prosocial work (Champion, 1999).

Modern behavioral therapy can, in part, be traced back to the work of two renowned researchers, A. Ivan Pavlov (classical conditioning) and B. F. Skinner (operant conditioning). Pavlov, a Russian physician and physiologist, discovered classical or respondent conditioning (associative learning) in the late nineteenth century (Maultsby & Wirga, 1998). Pavlov is best known for his experimental work with canines. Pavlov observed that canines would salivate in anticipation of being fed, even when no food was present, due to extraneous stimuli the canines associated with food. Pavlov began to experiment, conditioning the canines with other stimuli such as bells, buzzers, lights, and the sound of a metronome. He found that any stimulus would produce the conditioned salivary response as long as the canines associated the sound with being fed, without arousing fright or anger (Schultz, 1969).

In 1920, another behavioral experiment gained as much popularity with students of psychology as did Pavlov’s canine experiments. Watson and Rayner attempted to condition a nine-month-old infant (Albert), to determine if the child could be made to fear an animal that appeared simultaneously with a loud, fear-arousing sound. In addition, Watson and Rayner wanted to determine if the fear would be transferable to other animals and how long the fear would persist. To test their theory, a white rat was presented to Albert at the same time a loud clanging sound occurred whenever Albert touched the animal. “After seven pairings of the rat and noise (in two sessions, one week apart), Albert reacted with crying and avoidance when the rat was presented without the loud noise” (Harris, 2002, p. 238).

Pavlov, Watson, and Armer (among others) laid the groundwork for the stimulus-response model. The stimulus-response behavior is not illustrative of the types of behavior Skinner defined as operant behavior. Operant behavior, as opposed to classical conditioning, occurs without any observable external stimuli (such as Pavlov’s sound response). One of Skinner’s classical experiments involved the use of rats in a specially designed box. The box was designed to eliminate all extraneous stimuli. According to Schultz (1969):

In this experiment, a rat that had been deprived of food was placed in the box and allowed to explore. In the course of this general exploratory behavior the rat sooner or later, and by accident, depressed a lever activating a food magazine that released a food pellet into a tray. After a few reinforcements, conditioning was usually very rapid. Note that the rat’s behavior operated on the environment (pressed the lever) and was instrumental in securing food. (pp. 233-234)

Skinner’s experience led him to conclude one way to influence behavior was through the use of positive or negative reinforcers. Positive reinforcers may be food, water, companionship, and sexual contact. A negative reinforcer may be a loud noise, bright light, electrical shock, or some other type of negative stimulus. When the negative reinforcer is removed, the subject is conditioned to associate unpleasantness with the undesired behavior (Skinner, 1953). When Skinner extrapolated his findings to the therapeutic community, he noted the relationship between the patient and therapist: “The initial power of the therapist as a controlling agent arises from the fact that the condition of the patient is aversive and that any relief or promise of relief is therefore positively reinforcing” (p. 369). In this type of therapy the therapist does not criticize or object to his or her client’s behavior, but will have clearly defined goals and objectives upon which the therapist and client agree. The therapist operates under the assumption that the client will follow the goals and objective agreed upon and any deviance from the agreement may cause the therapist to strongly object (Stern and Drummond, 1991).

As a discipline, behavioral therapy was not recognized until the 1950s. It was introduced in the literature by Kinner and Lindsey in 1954, but gained acceptance through the work of Eysenck in 1960 (Wolpe, 1990). Behavioral therapists did not believe in the need to focus on the individual’s past as did traditional psychotherapists (Meyer & Chesser, 1970).

In the United States, behavioral therapy was popularized by Joseph Wolpe in the late 1950s. Wolpe used a technique of systematic desensitization for simple phobias. This type
of therapy was based upon the principle of reciprocal inhibition. Wolpe believed that if a patient was made to relax upon a gradual exposure to a fearful stimulus, the patient could not experience fear at the same time. This was due to the fear being blocked by the relaxed state, i.e. reciprocally inhibited (Stem & Drummmond, 1991).

Up until the 1970s, most behavioral therapists drew their understandings from laboratory experiments on animals and human volunteers with specific fears, which was useful, but had little clinical relevancy to clients with real-world problems (Marks, 1981). Since that time, behavioral therapy has proved to help a wide variety of anxiety and other disorders. Drummond and Kennedy (2006) provide a concise definition of behavioral therapy: "it is a collection of treatments whose central thesis is that psychological distress results from learned behaviour and that this behaviour can be unlearned" (p. 167). Marks (1986) noted, "the main aim is to alter that behaviour which restricts the patient's social, work, and day-to-day activities, thus improving his quality of life" (p. 1).

Cognitive-Behavioral Therapy

In the 1950s, through the work of Ellis (1989), and eventually Beck, there began a blending of cognitive therapy with behavioral therapy to form CBT. Ellis created rational-emotive therapy (RET) in 1955. Ellis was a practicing psychoanalyst who after six years of doing classical and analytically oriented psychotherapy became disenchanted with the inefficiencies of the approach. Ellis began using behavioral therapy, which he had previously used on himself to overcome his fear of dating and public speaking. According to Ellis (1989):

I did not by any means wholly invent cognitive-emotive-behavioral methodology, I think I can safely say that I was the first modern therapist to give it heavy emphasis and considerable publicity. From the beginning, I also included some highly emotive exercises and practices in RET. (p. 8)

Ellis’ postulated good and comprehensive CBT includes many features of existing therapies but also focuses on scientific methods, excluding some of the unscientific aspects of psychoanalysis. In reviewing Ellis’ work with clients, Kuchlwein (1993) noted, "...Ellis vigorously works with them to persuade them to give up their irrational thoughts and behaviors. While doing this, he emphasizes his clients' unconditional worth as people, maintaining that people are acceptable in spite of negative behaviors and traits" (p. 3).

In the late mid-1980s, there was still resistance to the blending of the two therapies, despite the work of Ellis and Beck. Marks (1986), a well-known behavioral therapist, noted, "it is quite possible that current research into cognitive therapy will yield more promising results that would justify the approach to (behavioral) trainees interested in routine treatments. That moment has not yet arrived" (p. 8). Despite the beliefs of Marks (1986) and others in the field, in the late 1980s and early 1990s, the cognitive and behavioral fields merged to form CBT.

Cognitive and behavioral changes have a reinforcing effect. When cognitive change leads an individual to change his or her actions and behavior, it results in a positive outcome that strengthens the change in the individual's thought patterns. When this occurs, changes in thinking are reinforced by the changes in behavior, which further strengthens those behavioral changes. Milkman and Wanberg (2005) note, "It is not just the reinforcement of the behavior that strengthens the behavior; it is the reinforcement of the thought structures leading to the behavior that strengthens the behavior. This self-reinforcing feedback process is a key principle, which becomes the basis for helping clients understand the process and maintenance of change" (p. 207).

Cognitive-Behavioral Therapy in Corrections

Corrections officials are concerned with recidivism and how CBT can assist with reducing recidivism. A meta-analysis conducted by Pearson, Lipton, Cleland, and Yee (2002) found that CBT programs were more effective in reducing recidivism than strictly behavioral ones. The authors noted, "The policy implication is that directors of rehabilitation programs should consider having cognitive-behavioral programming as a primary or secondary component of their treatment programming" (p. 493).

CBT has been found to be one of the more promising methods of rehabilitative treatments for offenders. Offenders have been found to distort cognition, which impairs their ability to correctly read social clues, accept blame, and morally reason. This creates a greater sense of entitlement on the part of the offender (Lipsey, Landenberger, & Wilson, 2007). This distorted thought process can lead them to demand instant gratification, misperceive harmless situations as threats, and confuse wants with needs (Ross & Fabiano, 1985). CBT programs use behavioral learning techniques to alter the general adaptive behavior of offenders. This allows them to return to their natural environment with a bank of new skills that they can reinforce in socially acceptable ways instead of in their prior illegal ways (Pearson, Lipton, Cleland, & Yee, 2002).

There are many "pre-packaged" CBT programs for offenders, several of which will be discussed in the following paragraphs. The question for correctional administrators is which program to utilize among the vast array of options. A meta-analysis conducted by Landenberger & Lipsey (2005) found that it was not the specific program that held the most benefit, but the general CBT approach that was responsible for the overall positive effects on reducing recidivism. Landenberger and Lipsey noted that effective CBT programs were characterized by having high quality implementation, which was represented by low proportions of treatment dropouts, high fidelity and monitoring of the treatment implementation, and adequate training for the providers. The authors also found that CBT effects were greater among high-risk offenders (those with a greater risk of recidivism) than among those with lower risk. This may be because the higher-risk offenders have more needs and areas needing change than the low-risk offenders.

In order for a CBT program to have an impact on offender recidivism, there must be fidelity in the delivery of the program. Poorly delivered programs along with failure to follow the CBT curriculum will have diminished results. Effective CBT programs consistently use role play, rewards and punishers, graduated rehearsal and practice, and appropriate modeling (Hubbard & Latessa, 2004). It should be noted that homework is also an essential part of most CBT programs. Since most face-to-face contact in CBT programs is relatively short (one to two hours each session) homework is necessary. According to Freeman et
The MRT incorporates cognitive elements into a behavioral-based program that highlights moral reasoning (Little & Robinson, 2005). The goals of MRT are to enhance the social, moral, and behavioral deficits of offenders. Its theory is based upon the ideas of Kohlberg’s moral development theory (MacKenzie, 2006). Kohlberg postulates moral development advances through six stages, with the sixth stage being the highest level of moral reasoning. Very few adults ever attain the sixth stage of moral reasoning. The higher levels of moral reasoning necessitate greater abstract thinking and the ability to take the perspective of others. Thus individuals with high levels of moral reasoning are less likely to engage in criminal behavior.

Research conducted on both adult offenders and juvenile delinquents found them to be at the early stages of moral reasoning (Arbuthnot & Gordon, 1988). Little and Robinson (1988) found that criminal offenders had deficits in their moral reasoning along with deficits in other areas. They believed that offenders also had low ego/identity strength, poor self-image, low self-esteem, strong narcissism, strong defense mechanisms, and strong resistance to change and treatment. They developed MRT around these deficits.

MRT facilitators undergo 32 hours of training to enable them to present the MRT materials. The program consists of workbooks designed for the specific types of client and particular program characteristics. The program is open-ended. Offenders typically write short answers or drawings to specific requirements from the workbooks, which do not require the offenders to have high reading skills or high mental functioning levels (Milkman & Wanberg, 2007). MRT is a 12-step process with four optional steps and usually takes 14 to 16 sessions (Van Dieten, 1997; Milkman and Wanberg, 2007).

Aggression Replacement Training (ART)

ART was developed by Goldstein and Glick at the Syracuse University Center for Research on Aggression as a multimodal intervention designed to alter the behavior of chronically aggressive youth (Goldstein & Glick, 1994). The program has expanded to encompass adult offenders. According to Milkman and Wanberg (2007), the program has three main components:

- Social skills training (the behavioral component) teaches interpersonal skills to deal with anger-provoking events.
- Anger control training (the affective component) seeks to teach at-risk youth skills to reduce their affective impulses to behave with anger by increasing their self-control competencies.
Moral reasoning (the cognitive component) is a set of procedures designed to raise the young person's level of fairness, justice, and concern with the needs and rights of others. (p. xiv)

ART is a closed-ended, 10 week program, spanned over 30 hours. Participants (8 to 12 offenders) typically attend three one-hour sessions per week. Group facilitators are required to attend a 40-hour training program to be certified in delivering the curriculum.

**Thinking for a Change (T4C)**

T4C was developed for the National Institute of Corrections (NIC) by Bush, Glick, and Taymans in 1997 (Van Diener, 1997). T4C integrates cognitive restructuring, social skills, and problem solving to increase the offender's awareness and increase interpersonal problem-solving skills (Milkman & Wanberg, 2007).

T4C is a closed-ended, 22 sequential lesson program that is delivered to 8-12 participants in the community or institutional setting. Each lesson lasts one to two hours and two sessions per week is the optimal recommended dosage. Only one session should be administered per day. Group facilitators are required to attend a 32-hour training program to be certified in delivering the curriculum.

**Criminal Conduct and Substance Abuse Treatment: Strategies for Self-Improvement and Change (SSC).**

SSC was developed by Wanberg and Milkman as a treatment for adult substance abuse offenders. The program has three main phases:

**Phase I: Challenge to Change.** This phase involves the client in a reflective-contemplative process. A series of lesson experiences is used to build a working relationship with the client and help the client develop motivation to change.

**Phase II: Commitment to Change.** This phase involves the client in an active demonstration of implementing and practicing change. The focus is on strengthening basic skills for change and helping the client to learn key CBT methods for changing thought and behavior that contribute to substance abuse and criminal conduct.

**Phase III: Ownership of Change.** This phase, the stabilization and maintenance phase, involves the client's demonstration of ownership of change over time. This involves treatment experiences designed to reinforce and strengthen the commitment to established changes. (Milkman & Wanberg, 2007, p. xv)

SSC is a long-term program lasting up to one year. There are 50 two-hour sessions. It can be delivered both in the community or correctional institution setting. It is an open and closed-ended program - Phase I is closed and Phases II and III have specific entry points. Group facilitators are required to attend a 40-hour training program to be certified in delivering the curriculum.

**Relapse Prevention Therapy (RPT)**

RPT was originally developed by Parks and Marlatt in 2000 as a maintenance program to prevent and manage relapse following treatment for substance abuse addiction. Currently, RPT is being used with a variety of offenders with a multitude of problems including substance abuse, sex offending, violence, and other types of criminal conduct (Milkman & Wanberg, 2007; Przybylski, 2008).

RPT intervention strategies fall into three categories: coping skills training, cognitive therapy, and lifestyle modification. Parks and Marlatt (2000) relate RPT teaches offenders the following strategies:

- understand relapse as a process,
- identify and cope effectively with high-risk situations,
- cope with urges and craving,
- implement damage control procedures during a lapse to minimize its negative consequences,
- stay engaged in treatment even after a relapse, and
- learn how to create a more balanced lifestyle. (p. 2)

RPT is an open-ended curriculum. Group facilitators are required to attend a 40-hour training program to be certified in delivering the curriculum.

**CBT in the Federal Probation and Pretrial Services System**

As part of the Research to Results (R2R) initiative, several federal districts implemented cognitive-behavioral programs. In order to support implementation, the AO developed a "model implementation plan," which outlines for districts training, structure, and quality assurance issues that will increase the likelihood of effective implementation of cognitive-behavioral programming. All districts that received grant funding were required to follow the implementation plan; other districts that are implementing cognitive-behavioral programming are also strongly encouraged to follow the plan. Beyond the plan components, districts were given wide latitude in choosing the program to implement and how it would be facilitated (i.e., through contract vendors or in-house staff). Districts chose to implement a wide variety of programs, including take-home programs, which are especially useful for rural jurisdictions. During FY2007, using R2R funds, 123 officers were trained in cognitive-behavioral services and 248 offenders had begun receiving services. This is impressive, given that many districts did not receive funding until six months into the fiscal year. Officers have been enthusiastic of the programs. Senior U.S. Probation Officer Darren Kerns stated:

I have facilitated groups for adults and juveniles and have observed the positive effect it can have on offenders. Also, as a probation officer trained in T4C and other cognitive skills curricula, I am better able to reinforce the concepts with offenders when dealing with them on a daily basis. I like the skill-based approach which assists offenders in changing problematic behavior, thoughts, and beliefs. If offender buy-in is established, the participants leave the program with skills they can use to effectively address situations that have caused them problems in the past.

U.S. Probation Officer Lisa Martinetto said: The more I understand about an offender's thoughts or beliefs, the easier it is for me to identify potential thinking errors which may lead to future violations or recidivism. Ultimately, using the cognitive skills programming gives me the opportunity to more effectively supervise each offender. Offenders have also responded positively...
to the program; one said: "I really needed to start thinking for a change so thank you for this class. I really learned a lot." Another indicated that he attended "at first because my PO insisted. Then it became interesting and I obtained a lot from it. It helped me understand my thoughts, feelings, and actions a little better."

Three federal probation districts (Hawaii, Nevada, Northern Iowa) decided to take a unique approach to cognitive-behavioral programming; they teamed up with The Change Companies of Carson City, Nevada, to develop a CBT offender journaling program. The program, Interactive Journaling, addresses the "Big Six" criminogenic need areas, including antisocial values, criminal peers, low self-control, dysfunctional family ties, substance abuse, and criminal personality.

The Interactive Journals serve the offender through application-focused exercises and skill-building activities based upon the trans-theoretical model of change, in addition to cognitive-behavioral concepts. As the offenders gather relevant information related to their problem areas, they can map out their past, present, and future, creating a personal and lasting tool for change. The journals can be implemented in a group or individual setting. The District of Nevada is utilizing the expertise of the University of Nevada, Las Vegas, to design an experimental study of the Interactive Journaling program to assess its effectiveness in reducing participants' recidivism.

Conclusion

Cognitive-behavioral programs have been shown to reduce recidivism as long as the programs are implemented well. As with any program, intensive planning about the program to use, logistics of providing the service, quality assurance, and evaluation of effectiveness should occur prior to actual implementation. Such planning will increase the likelihood of successful implementation. While evaluation of the program allows districts to address problems that may occur, particularly around program fidelity. With good cognitive-behavioral programming, districts can increase their effectiveness in addressing offender issues.

References


