

Introduction to the Special Issue: Cognitive-Behavioral Interventions With Students With EBD

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ABSTRACT: Significant progress has been made in developing models of social information processing, and cognitive-behavioral processes and related interventions. While there has been limited attention to cognitive-behavioral modification (CBM) in the special education literature, the majority of the contributions have come from the fields of school, clinical, and cognitive psychology. Despite well-documented needs of students with emotional/behavioral disorders (EBD) in areas of anger/aggression, anxiety, depression, and research demonstrating the efficacy of CBM interventions in these areas, these disciplines have operated somewhat independently of each other with respect to CBM. This special issue brings together leading scholars from special education and psychology in a collaborative examination of current knowledge on cognitive-behavioral interventions for students displaying specific challenging behaviors.

■ Cognitive-behavioral modification (CBM) refers to a collection of therapeutic techniques and strategies that are used to alter behavior by teaching individuals to actively participate in understanding and modifying their own thoughts and behaviors. CBM unites behavior modification with methods of self-directed change. CBM often targets change in covert thoughts versus a more strictly behavioral training focus of only changing overt behavior. Many aspects of CBM are based on a premise that inner speech mediates behavior, and by using language to alter cognition, behavior can change. In this respect, CBM addresses cognitive and symbolic mediation processes that affect behavior. Processes can include environmental perception and interpretation, belief systems (including those tied to self-statements), verbal and imaginal coding systems, planning, problem solving, and other types of thinking (Craighead, Kazdin, & Mahoney, 1976, chap. 8).

Some CBM methods, such as those used with adolescent depression (e.g., self-monitoring, self-instruction training), can use behavior to help drive changes in affect and cognition (Kendall, 2000). It is important to note that cognitions and behaviors are

mutually interactive and one does not always have to precede the other. That is, affect and cognition impact behavior, and behavior impacts affect and cognition with regard to difficulties a person is experiencing (Kazdin, 2001). Cognitive-behavioral interventions have been successfully used in a variety of settings with children, adolescents, and adults, addressing issues of anger/aggression, anxiety, panic disorders, substance abuse, schizophrenia, bipolar disorder, borderline personality, depression, limited self-control, poor social problem solving, and related problems (Kendall; Larson & Lochman, 2002; Leahy & Beck, 1988).

Significant progress has been made in recent years developing models of social information processing, specific cognitive-behavioral processes and interventions, and derivative models such as those using cognitive-ecological frameworks (Crick & Dodge, 1994; Dodge & Pettit, 2003; Guerra, Eron, Huesmann, Tolan, & Van Acker, 1997; Zelli, Dodge, Lochman, Laird, & the Conduct Problems Prevention Research Group, 1999). These developments have contributed to an expanded knowledge base regarding the behaviors and accompanying interventions

for students with emotional and behavioral disorders (EBD). This body of knowledge relates to the work done by special educators with students with EBD, and to the missions of researchers, teacher educators, and practitioners who need exposure to this body of knowledge. The construct of emotional and behavioral disorders in special education implies not only a traditional behaviorist view, but a way of understanding individual needs related to cognition, affect, social interaction issues, developmental factors, and the larger systemic and ecological contexts in which students exist and function.

While there has been some attention to CBM in special education literature over the years, for the most part, such articles have been few and far between. The majority of the contributions to the literature have been in the fields of school, clinical, and cognitive psychology. Despite obvious areas of common interest, such as anger/aggression, anxiety, and depression, these disciplines have operated somewhat independently of each other with respect to CBM, with little active collaboration. The need for a collaborative approach to address these areas as they apply to students in special education is apparent.

There are a number of important reasons to discuss cognitive-behavioral interventions with respect to students with EBD. First, data on longer-term outcomes for students with EBD are discouraging. Students with EBD have a dropout rate of about 50–55%, are at greatly increased risk for arrest while in school and during their young adult years, and face continuing problems with limited earnings, job stability, interpersonal relationships, and other forms of adjustment in later life (Carson, Sitlington, & Frank, 1995; Greenbaum et al., 1996; Malmgren, Edgar, & Neel, 1998; Wagner, 1995). Many of these outcomes have been linked to problems in the areas of anger control/aggression, anxiety, and depression, all of which have been addressed through cognitive-behavioral interventions and leads to the second reason we must explore CBM in greater detail. There is a significant body of evidence-based research demonstrating the efficacy of CBM interventions to address anger, anxiety, and depression, which constitute significant needs areas for students with EBD (Kazdin & Weisz, 1998; Kendall, 2000, chap. 9; Ollendick & King, 1998; Weisz & Hawley, 2002).

Third, there are a number of popular stand-alone therapeutic programs, such as the *Coping Power Program* (Lochman & Wells, 2001) and the *Tools for Getting Along Curriculum*, as well as multifaceted intervention programs, such as *Second Step* (Grossman et al., 1997) and *The Incredible Years* (Reid & Webster-Stratton, 2001), that contain components that draw from research in cognitive-behavioral modification. Many of these programs are used in whole or in part within the context of the school, which suggests the possibility that some evidence-based CBM techniques used by nontherapists may have value in everyday school practice by a wider array of professionals in more generalized contexts. This leads to the fourth reason to explore CBM interventions for students with EBD. For the most part, teacher preparation programs in EBD have devoted little effort to educating future practitioners about CBM, and there has been limited preparation of school-based mental health professionals in CBM techniques (Clarke, DeBar, & Lewinsohn, 2003; Norlander, 1990). This may relate in part to (a) the traditional therapeutic nature of some stand-alone interventions using CBM that have not been designed for implementation in the context of the day-to-day work of the teacher of students with EBD; and (b) the lack of clear role definitions for using such approaches for teachers of students with EBD.

Thus, we have attempted to generate this special issue of *Behavioral Disorders* to address these overarching questions: **What can the field of special education learn from research on cognitive-behavioral interventions, and how can these intervention techniques be implemented in the school setting to meet the needs of students with EBD and mental health disorders?** What is CBM and how do these intervention techniques relate to strategies and procedures commonly employed in the school setting? Which CBM intervention techniques have been empirically validated as effective with specific key disorders? How might clinically trained professionals, such as school psychologists, counselors, and social workers, work collaboratively with teachers to develop, implement, and evaluate prevention and intervention programs that take advantage of this knowledge?

Having identified these issues for the reader to consider, the following sections of this Introduction will set the stage for the articles that comprise this special issue. In the next

section, we provide a brief historical overview of the development of CBM, with an integrated examination of key theoretical elements and related issues. The discussion then bridges to a brief presentation of some effective CBM programs carried out in the school setting along with the identification of potential benefits and barriers to employing CBM strategies within the context of the school. Finally, we will conclude with an overview of the special issue contents.

Historical Overview of Cognitive-Behavioral Modification

B. F. Skinner, commonly thought to have focused only on clearly objective, observable, and measurable behaviors, offered the following remarks:

No entity or process which has any useful explanatory force is to be rejected on the ground that it is subjective or mental (Skinner, 1963, p. 958).

It is particularly important that the science of behavior face the problem of privacy. It may do so without abandonment of the basic position of behaviorism.... An adequate science of behaviorism must consider events taking place within the skin of the organism, not as physiological mediators of behavior, but as part of the behavior itself (Skinner, 1963, p. 953).

Skinner's comments reflect an awareness that mental processes linked to behavior can be critically important, which also implies that more restricted views, reflecting a silo approach to thinking about human behavior, can constrain understanding and limit intervention effectiveness. As part of understanding the growing complexity in the field leading to the establishment of CBM, it is instructive to look at major historical developments along the way.

There have been multiple historic pathways contributing to the development of CBM. Like many of the great ideas directing the action of western civilization, the roots of CBM can be traced to the ancient Greeks. Plato's idealism—the search for 'ideal forms'—included a position that perception contributes to our view of reality. Western philosophy has suggested that "reality is determined by cognition" (Leahy, 1996, chap. 2). Leahy wrote, "Kant's (1872-1988) philosophy of mind was based on the view that reality is never directly knowable, but rather is 'known through categories of thinking' (which today we would call *schemas*)" (p. 14).

Following behavioral work early in the 20th century by John Watson, who is credited with developing rigorous methodology for behavioral research (Craighead, Kazdin, & Mahoney, 1976), and his colleagues, Rosalie Rayner and Mary Cover Jones, there was relatively little child behavior therapy work done until the 1950s. The mental hygiene movement of the 1920s, however, included some behavior clinics for young children (Kauffman, 2001). Also of note was a call in 1938 by Arnold Gessell for a greater focus on behavioral procedures with children (Craighead, 1982). During the late 1940s and early 1950s, the psychoanalytic approach was the principal mode of support for children with behavioral issues. With growing criticism of the effectiveness of psychoanalytic procedures in the 1950s and early 1960s, the behavior therapy approach gained significant momentum (Craighead; Craighead et al.).

In a very broad and basic sense, one can consider the evolution of CBM as occurring in three stages over several decades. Concurrent with the work of early behaviorists such as Watson, explicit, observable behaviors were considered the only acceptable data allowed in research. Thus, the early focus was on purely observable stimulus-response (S-R) phenomena. Later on, consideration of mediation processes in a stimulus-response model was seen in the work of Hull and Tolman. Organism-specific variables (O) became important, and the S-R psychology moved toward S-O-R psychology (Mahoney, 1974). A third stage of development came with the inclusion of thinking, perception, motivation, and cognitive mediational processes, drawn from the research of Bolles, Bower, and Neisser (Kazdin, 1978). Several researchers during this period focused on cognitive processes such as discrimination, generalization, cueing, and labeling.

Sharpening the historical focus on these developments, cognitive-behavioral modification can be seen as having emerged in the late 1950s, 1960s, and 1970s as a result of several forces. First, as a sequel to developments discussed above, psychology in the 1970s had "gone cognitive," with particularly salient developments in modeling, self-instruction, and problem-solving protocols (Craighead, 1982; Craighead, Meyers, & Craighead, 1985; Meyers, Cohen, & Schleser, 1989). Second, research in self-control had gone beyond traditional behavior therapy approaches to include specific cognitive

components. Third, comprehensive cognitive therapeutic procedures were developed and the field of cognitive-behavioral therapy began to come into its own right. Each of these three areas warrants further examination.

Developments in Cognitive Psychology

George Kelly (1955) developed a theory of psychopathology framed totally in terms of cognition. He suggested that an individual's difficulties, such as anxiety, depression, anger, and paranoia, were a result of a person's "construction of reality." Kelly (as cited in Leahy, 1996) introduced the idea of "constructive alternativism," which posits that individuals vary in the ways they produce alternatives or optional plans of action to address their needs. For example, a person with feelings of anxiety, having been provided therapeutic support, might be able to frame alternative views of a situation, enabling more adaptive responses and behaviors. Kelly's work served as a precursor to the work of Albert Ellis (Rational Emotive Therapy) and Aaron Beck, often cited as the founder of cognitive therapy, as they explored the "cognitive distortions" or "automatic thoughts" that often led to psychopathology. Their work established the very foundation of many of the therapeutic procedures currently in use in CBM. These developments will be discussed in greater detail later.

Advances in cognitive research on modeling, self-instruction, and problem solving helped facilitate the movement to cognitive-behavioral interventions. Earlier work by Dollard and Miller on modeling and imitative learning, interpreting psychological theory in learning terms, demonstrated the role of reinforcement in observational learning (Bandura, 1969). Bandura, focusing on information processing research, emphasized the importance of verbal and imaginal encoding of observed behaviors through a process of symbolically encoding learned information. He noted, "Most of the cognitive processes that regulate behavior are primarily verbal rather than visual" (p. 134). Piaget also reported on the role of symbolic processes in modeling (Bandura, 1977), but Bandura further explicated modeling processes, noting some distinctions from the Piagetian perspective. For instance, Bandura suggested that a lack of modeling effect may not necessarily be due to "insufficiently differentiated schemata," per Piaget's view,

but rather, may connect to difficulties with attentional, retentional, motor production, or motivational processes. Bandura's work clearly took modeling effects to a new level, with greater attention to cognitive processes, while also following a model of reciprocal determinism, where the person, behavior, and environment were mutually interactive. This line of research, in turn, opened doors for the evolution of behavioral therapies to include more cognitive components, drawing on a broader research base in psychology (Craighead, 1982).

Donald Meichenbaum's work on self-instruction has contributed a foundational element to CBM (Craighead, 1982). Meichenbaum stated, "the focus of self-instruction training has been on the child's conscious self-regulatory ability" (p. 103). He proposed that self-instruction would support the development of the following skills: (a) controlling impulsive behaviors; (b) attending to important events or cues; (c) focusing on specific goals; (d) coping with stressors; and (e) managing verbal and nonverbal behavior. Extending on Mahoney's (1974) discussion of *mediated stimulus transformation*, or said more plainly, response based on perception, Meichenbaum (1977) argued that environmental events considered in an antecedent-consequence framework were of lesser importance than a person's perception of surrounding events *and what a person said to himself about those events*. Drawing on the work of Vygotsky and Luria, Meichenbaum considered the role of private speech in guiding children's behavior (Craighead, 1982; Harris, 1982). Research on internal dialogue had demonstrated a linkage to (a) what aspects of the environment the child focuses on; (b) how he/she evaluates specific events; (c) what self-attributions he/she makes; and (d) how he/she views his/her ability to deal with stressors (Meichenbaum). Meichenbaum's self-instruction model entailed five steps: (a) adult modeling, talking aloud; (b) child copying adult performance, with guidance; (c) child performance, with self-guidance; (d) child performing with faded self-guidance; and (e) child performing with silent self-guidance.

The third area of cognitive research, problem solving, is based on work of D'Zurilla and Goldfried, Spivak and Shure, Meichenbaum, and others (Craighead, 1982; Mahoney, 1974). Mahoney suggested that an historical aversion to

a problem-solving approach among behavioral therapists may relate to its “mediational flavor,” as well as challenges in defining and measuring elements of problem solving. Students using self-instruction typically follow a simplified problem-solving procedure of breaking a task into manageable parts, determining the skills required for each task, and applying these skills via self-instruction (Meichenbaum, 1977). D’Zurilla and Goldfried (1971) identified five steps to problem solving: (1) orient to problem; (2) define problem; (3) generate alternatives to resolve problem; (4) evaluate alternatives, select best, and develop plan; and (5) engage plan and evaluate. Craighead et al. (1976) maintained that intervention involves a process of successively shaping problem-solving skills and facilitating their independent use. Following a similar structure to that of D’Zurilla and Goldfried, Spivak, Platt, and Shure (as cited in Harris, 1982) delineated five social problem-solving skills for children and adolescents that apply to different degrees at different ages: (1) problem awareness; (2) generation of alternative solutions; (3) means-end thinking to craft and implement solutions; (4) comprehending consequences of behavior; and (5) understanding cause and effect. Problem-solving research by Spivak and Shure in the 1970s was the first major successful demonstration of this type of training with children (Craighead, 1982). These researchers demonstrated that children with EBD typically lack basic problem-solving skills and generate “maladaptive” responses, in large part due to having a very limited behavioral repertoire (Mahoney). Research by Spivak and Shure further suggested that a child’s capability to develop behavioral response alternatives and understand probable associated consequences increased the likelihood of selecting a response that would be successful and reinforced (Craighead et al.). Multiple researchers have suggested that cognitive-developmental factors impact the success of problem-solving training used with children and adolescents of different ages and with varying developmental attributes (Craighead; Craighead et al., 1985; Meyers et al., 1989).

Exploration of Self-Control and Self-Regulation

Traditional behavior modification programs to regulate student behaviors have

relied primarily on external agents to manage behavioral contingencies (Rosenbaum & Drabman, 1979). Cognitive-behavioral modification strives to instruct the individual to act in a manner to influence his or her own behavior through self-control. Kazdin (2001) cited several reasons why self-control (a.k.a., self-regulation) approaches may be preferable to those relying on external controls: (a) much behavior of concern will be missed by administrators of external controls; (b) external controls tied to one external source and situation may not generalize; and (c) individuals tend to perform better when invested in a plan by choice than when having the plan imposed.

Lloyd Homme coined the term “coverants” to reference covert mental operations, suggesting that these were critical parts of a chain that controlled behavior. Using an operant conditioning perspective, and adapting (or maladapting, as suggested by Mahoney, 1974) in part, Premack’s work on reinforcement, Homme suggested that, as was the case for overt behaviors, covert operations could be managed by controlling antecedents and consequences (Kazdin, 2001; Mahoney). In citing a lack of empirical support for Homme’s position, Mahoney pointed to subsequent research by Ackerman in using imaginal representations and subvocalizations to manage consumption behavior (e.g., food consumption) as well as related research extending on Homme’s theories.

Karoly (1993) defined self-regulation as follows:

Self-regulation refers to those processes, internal and/or transactional, that enable an individual to guide his/her goal-directed activities over time and across changing circumstances (contexts). Regulation implies modulation of thought, affect, behavior, or attention via deliberate or automated use of specific mechanisms and supportive metaskills. The processes of self-regulation are initiated when routinized activity is impeded or when goal-directedness is otherwise made salient (e.g. the appearance of a challenge, the failure of habitual action patterns, etc.). Self-regulation may be said to encompass up to five interrelated and iterative component phases: (1) goal selection; (2) goal cognition; (3) directional maintenance; (4) directional change or reprioritization; and (5) goal termination. (Karoly, 1993, p. 25)

Work in the 1970s by Kanfer and Karoly (as cited in Meyers et al., 1989) identified self-control in terms of three elements:

self-monitoring, self-evaluation, and self-reinforcement.

Self-monitoring refers to purposeful efforts at observing, identifying, and attending to one's own feelings, thoughts, beliefs, or behaviors. Earlier behavioral research demonstrating effects of stimulus control has been linked to self-monitoring, where engagement in the act of self-monitoring, particularly when there is a differential focus, results in behavioral change. Along a similar vein, the act of self-monitoring sets the stage for an *expectancy*. Several decades of behavioral research have demonstrated the power of expectancy effects. In sum, earlier research from the 1950s through early 1970s demonstrated that self-regulation is facilitated through targeting particular behaviors for observation (Bandura, 1969; Karoly, 1993; Mahoney, 1974).

Self-evaluation requires that "... an activated personal standard is juxtaposed against the knowledge of one's current performance..." (Karoly, 1993, p. 35). Furthermore, the evaluative process is a linchpin in self-motivation, and self-evaluation is not an automatic self-regulating function, but is subject in part to external factors controlling activation (Bandura, 1977; Karoly). Research has shown that some external framework or criterion is a prerequisite for self-evaluation (Karoly; Rosenbaum & Drabman, 1979). Following specific behavioral enactment, taking a "matching-to-standards" approach, the child self-evaluates his/her behavior relative to the standard(s) in place. At this point in the process, cognitive difficulties may impact the process, including cognitive deficiencies, distortions, and biased attributions that affect processing (Craighead et al., 1976; Lochman, Whidby, & FitzGerald, 2000). This view of processing may also relate to Mahoney's (1974) argument regarding the importance of symbolic mediators of experiential learning, where, "the actual contiguity of events may be far less important in learning than their perceived relationship" (p. 167). Citing prior research by Wong, Gerber (1987) suggested that cognitive-behavioral interventions that rely on self-learning (linked to self-evaluation) can be conceptualized in terms of active processing, metacognitive, and schema theories. These three levels imply differing degrees of external adult direction and scaffolding, and relative roles for the child performing self-evaluation, as part of the self-directed learning process.

Self-reinforcement involves the self-delivery of some desirable outcome contingent upon the completion of a successful action. Reviewing research on training children and adults to self-regulate behaviors, Bandura (1977) concluded that the studies demonstrated the capacity for this type of training to effect lasting change, and commented:

Those who influence their own behavior by contingent self-reward attain higher levels of performance than those who perform the same activities but receive no reinforcement, are rewarded noncontingently, or observe their own behavior and set goals but do not self-reward their successful efforts. (Bandura, 1977, p. 144)

Under the social learning theory model, self-reinforcement is both an internal and external process that depends in part on environmental factors and sometimes involves a change in the environment (Bandura). Selection of performance criteria is often based on external referents, particularly modeling influences. At the same time, one's behavior can be self-regulated through covert self-reinforcement processes, using symbolic mediation in the form of self-commendation or other inwardly directed communication. Two distinct sources of consequences can form the basis for the efficacy of self-reinforcement—internal products of self-evaluation (e.g., satisfaction associated with improved self-image, feelings of pleasure at successful self-control) and external outcomes (e.g., reinforcement by others). In sum, self-selected and self-directed reinforcements have demonstrated effects similar to and sometimes superior to those externally administered (Bandura, 1969, 1977; Mahoney, 1974; Rosenbaum & Drabman, 1979).

Development of Cognitive Therapeutic Procedures

As mentioned previously, the foundations of cognitive-behavioral procedures were built through the cognitive restructuring work of Albert Ellis and Aaron Beck (Craighead, 1982; Craighead et al., 1985; Meyers et al., 1989). Subsequent procedures developed by Meichenbaum arose independently of those by Ellis and Beck. These approaches were based on altering irrational, dysfunctional, or maladaptive patterns of thought. The role of the therapist was threefold: (1) identify and

understand the triggering events causing the patient difficulty; (2) identify and understand the patient's thoughts in response; and (3) help the patient alter the irrational/dysfunctional thoughts (Meichenbaum, 1977). The "help" to the patient involved a series of discussions, activities, and processes that enabled the patient to change self-statements, specific expectancies, and related beliefs.

For example, as illustrated by Meichenbaum (1977), Beck worked on changing five types of client thought distortions:

- (1) arbitrary inference—the drawing of a conclusion when evidence is lacking or actually supports the contrary conclusion;
- (2) magnification—exaggeration of the meaning of an event;
- (3) cognitive deficiency—disregard for an important aspect of a life situation;
- (4) dichotomous reasoning—overly simplified and rigid perception of events as good or bad, right or wrong;
- (5) overgeneralization—taking a single incident such as failure as a sign of total personal incompetence and in this way generating a fallacious rule. (p. 192)

Clients with coping skills deficits related to anxiety, as well as those with general problem-solving difficulties, benefited from therapeutic measures that identified and addressed an absence of adaptive mechanisms and related problem-solving skills (Meichenbaum). For those clients, therapists worked on supporting cognitive reappraisal, behavioral experimentation with adaptive responses, and positive and strategic self-statements and self-instruction. Problem-solving training focused explicitly on identifying the problem, developing alternative responses, selecting and enacting the best response, and evaluating the results. Over the years, a wide variety of procedures and techniques have been developed to assist individuals in their efforts to confront, understand, change and/or learn to cope with the affective states, cognitions, and behaviors.

In sum, cognitive-behavioral therapies can be conceptualized as an integrated approach, drawing on behavior therapy, while also facilitating cognitive change in the client (Kendall, 1993). While based on classic operant conditioning, learning theory, self-instruction, and models of information processing, cognitive-behavioral interventions also incorporate contextual and environmental factors. Using discussion, client homework, cognitive activities, behavioral enactment, and

performance-related activities (e.g., role play, rehearsal), clients are assisted in a self-directed process of altering their thoughts, feelings, and in turn, their behaviors. Cognitive-behavioral interventions have demonstrated great promise; however, a number of concerns and cautions should be considered regarding the current research base supporting CBM interventions.

Concerns Related to Effectiveness of CBM Procedures

While cognitive-behavioral procedures were being expanded and refined throughout the 1970s and 1980s, criticisms and cautions regarding these approaches emerged. Gresham (1985) reviewed 33 studies of cognitive-behavioral interventions for social skills training for children. He reported on limitations in treatment procedures and significant problems in the research literature, including: (a) subject characteristics; (b) treatment specifications; (c) outcome measures; and (d) generalization/maintenance. In an early review on cognitive-behavioral interventions, Kazdin (1982) cautioned that efficacy can decline significantly as a result of problems with monitoring, supervision, and evaluation of trainers.

Additional concerns regarding the future of CBM were raised by Kendall and Choudhury (2003). These included: (a) different outcome measures that are used across studies make it difficult to compare and analyze effects and accurately determine benefits of CBM; (b) definitions of patient improvement are sometimes simplistic, are limited to symptom reduction, and need further development; (c) research using statistical significance and not clinical significance can limit the utility of findings; (d) difficulty resolving differences among respondents (e.g., parents and children) in self-report measures compromises findings; (e) a deficiency in equivalence of measures taken at different developmental points; (f) a lack of clearly defined roles for parents as part of interventions; (g) unclear understanding of moderating and mediating variables; (h) research gaps in explicating the relative independent and combined effects of medication and CBM; (i) therapist factors can vary greatly, influencing implementation of therapy; and (j) problems taking narrowly applied interventions and demonstrating transportability of treatment effects. Similar concerns have been aired in discussions of

standards for empirically supported treatments (Weisz & Hawley, 1998).

Albert Ellis (2002) indicated that it is difficult to clearly demonstrate the empirical effectiveness of CBM over other forms of behavioral therapy for three specific reasons: (a) no form of behavior therapy is always done the same way; (b) all behavior therapy includes cognitive, behavioral, and emotive techniques, which the therapist chooses to use (or not); and (c) there are so many techniques it would take innumerable studies to demonstrate the effectiveness of use (or non-use) of one or another technique. Ellis indicated that CBM encompasses an ever growing body of therapeutic techniques and procedures. He proposes that "...all behavior therapy has become more multimodal, incorporating existential/humanistic components" (p. 32), making it increasingly difficult to clearly separate one approach to behavior therapy from another. Thus, despite the existence of research demonstrating efficacy of CBM interventions, significant limitations and challenges remain.

Despite the concerns regarding the limitations of CBM interventions, there appears to be considerable promise for these strategies to prove helpful for an increasing number of students with significant behavioral and mental health needs in our schools. The school provides a natural setting in which students must address social and academic problems on an ongoing basis. Moreover, the school provides a setting where adults are generally available to teach CBM strategies and to guide and support students as they attempt to implement these procedures. Next, we will explore research to practice issues that affect the role of special educators with respect to implementing CBM in schools. A number of effective school-based interventions employing CBM procedures will be reviewed briefly and some of the benefits of and barriers to employing these practices within the school context will be identified.

Research to Practice Issues for Special Educators

The authors previously suggested the possibility that some evidence-based CBM techniques may have value in everyday school practice when implemented by special education professionals. Questions of empirical validation emerged in relation to application of CBM methods in schools. The following

sections open the discussion regarding related factors.

Service Delivery for Cognitive-Behavioral Interventions and the Role of Schools

Cognitive-behavioral interventions have been delivered to students via multiple outlets: (a) private practice; (b) hospital environments; (c) community-based mental health services; (d) university-based clinics; (e) school- or community-based research projects; (f) school-based mental health programs; (g) day/residential treatment centers; (h) grant-supported school- or community-based interventions with CBM components; and (i) similar settings. A further exploration of some school-based approaches in providing CBM is germane to the discussion of the roles of special educators in delivering CBM. Lochman's *Anger Coping Program*, the *Fast Track Project*, and the *Adolescents Coping With Depression Program* (CWDA) will be used as examples.

The *Anger Coping Program*, which addresses self-monitoring, self-management, perspective-taking, and social problem-solving skills, provided in a school setting, typically targets fourth- and fifth-grade boys, using eighteen 45- to 60-minute sessions (Lochman et al., 2000). Lochman and colleagues noted that reinforcement in a group setting can be more effective than that available through peer dyads or with adult therapists. The sessions can be co-facilitated by a mental health professional and a school counselor (Lochman, Curry, Dane, & Ellis, 2001). This suggests three points with respect to CBM in schools: (a) the group setting that naturally exists in the school can be leveraged to facilitate better reinforcement of participants; (b) more students can be served in a more economical fashion, yielding improved cost-benefit ratios; and (c) service delivery can be undertaken by properly trained school personnel.

The *Fast Track Project*, in association with the Conduct Problems Prevention Research Group, uses a comprehensive approach rooted in cognitive-behavioral, developmental, and ecological theory to prevent and manage the development of antisocial behavior among high-risk children. While multifaceted and involving program components delivered in school, homes, and the community, an adapted version of the *PATHS* (Promoting Alternative Thinking Strategies) curriculum is

provided through teacher-directed classroom sessions in the school, along with social skills training and supervised peer tutoring. The school-based program staff includes an Educational Coordinator (EC), teachers, and paraprofessionals. The EC, an educator with background in special education and/or counseling, trains and consults with teachers and paraprofessionals, and directs the social skills sessions with students. Trained teachers provide 30-minute *PATHS* sessions two to three times per week. Paraprofessionals manage the peer tutoring component.

The *Fast Track Program*, as well as earlier prevention projects such as Spivak and Shure's problem-solving training (Urbain & Savage, 1989), and more recent interventions such as Second Step (Grossman et al., 1997), have demonstrated the multiple roles that education professionals and paraprofessionals can play in delivering services to students, including those utilizing cognitive-behavioral techniques. Durlak (1982) addressed the issue of paraprofessionals providing cognitive-behavioral supports in schools, noting: (a) there is a continual shortage of professionals to meet existing demands; (b) most school-based mental health professionals (i.e., school psychologists) devote a relatively small percentage of their working time to direct delivery of therapeutic interventions; (c) emerging evidence suggests that paraprofessionals, with appropriate training and supervision, can offer critical intervention services; and (d) significant adults in children's lives (e.g., teachers and paraprofessionals) who are readily available to help children in their natural daytime setting (i.e., school) are in the best position to be of assistance. Durlak cited ten research studies involving delivery of cognitive-behavioral interventions using paraprofessionals. Despite variation in subjects, settings, and specific treatments, and limitations in the research, he found evidence of varying degrees of success among all of the studies, suggesting, at least in part, the utility of a role for paraprofessionals in delivery of cognitive-behavioral interventions.

The *Adolescent Coping With Depression Program* (CWDA) uses a school-based, group treatment approach (Clarke et al., 2003). Based on a multifactorial model of depression (i.e., negative thoughts, high negative reinforcement and low positive reinforcement, life stressors, minimal protective factors and many risk factors), this intervention uses a

psycho-educational approach. Therapists with masters level (or higher) training from clinical/counseling psychology, social work, and school psychology typically deliver this intervention. The intervention, which can involve sixteen 2-hour sessions offered twice a week, has two main segments: (a) behavioral activation (using age-appropriate and fun activities to drive change); and (b) cognitive therapy. Sessions are typically run by one therapist, but co-therapists have been used.

Other interventions for depression have utilized school-based delivery of intervention services for 10- to 12-year-olds with depression (Stark, Best, & Sellstrom, 1989), using individual and small group therapy. As is the case with many interventions for depression, a specially trained clinical therapist provides the intervention. Teachers and paraprofessionals can play a secondary supportive role in cooperation with the therapeutic program, modifying environmental factors, providing targeted reinforcement for adaptive responses by students, and fostering effective communication among student, family, school staff, and therapists. Although there is clear evidence of promising results from school-based interventions using cognitive-behavioral techniques, legitimate concerns exist regarding these types of interventions in schools.

Concerns Regarding Delivery of Cognitive-Behavioral Interventions in Schools

While many concerns exist, due to the limited scope of this article, six areas will be targeted for brief discussion: (a) disagreements over the mission of schools vis-à-vis provision of mental health services; (b) limitations of school resources; (c) academic accountability forces driving the schools; (d) fidelity of intervention and appropriate training of school staff in specific intervention programs; (e) stakeholder buy-in, given multiple beliefs, agendas, and responsibilities among stakeholders; and (f) generalization and maintenance of treatment effects.

Schools have a primary mission to educate students. Despite significant evidence supporting the effectiveness of mental health supports provided through the schools (Epstein, 1994; Malone-Fenner, 1994), disagreements exist among education professionals as to the extent to which schools should expand

their roles, particularly in the provision and/or hosting of mental health and related social services (Malone-Fenner). Challenges have been raised regarding educating and training school staff in psychological interventions when these same staff members already appear to require further professional development opportunities related to effective academic instruction (Hardy, 2003). Additional concerns have been raised over the use of pull-outs from academic classes for purposes of providing specialized interventions. For example, Stark et al. (1989) noted the importance of closely working with school administrators and staff who may resist pull-outs of students and special accommodations offered to students to facilitate their participation in school-based therapy.

This debate over the role of schools has been exacerbated in difficult economic times where local school budgets have been cut and teachers have been laid off. Concurrent with diminished local funding for mental health supports, substantial cutbacks have occurred in community mental health services for youth (Hardy, 2003; Prasse, 1991). For example, a documented 12,700 children were placed in state child welfare systems or county juvenile justice systems in fiscal year 2001 for the sole reason that parents saw no other way to obtain needed mental health care for them, according to a report released by the U.S. General Accounting Office (GAO, 2003). Perhaps most disturbing about these numbers is that they likely underestimate the practices, because governments do not routinely track youths placed in agency systems for this reason. In a scenario where there is severe competition for scarce financial resources, the economic feasibility of providing mental health supports in schools has been questioned (Hardy, 2003; Hoagwood & Johnson, 2003).

With the growth of the high-stakes testing movement and the enactment of the No Child Left Behind (NCLB) law (Heubert, 2002; No Child Left Behind Act, 2001), schools have been under increasing pressure to demonstrate academic gains. Several reports have suggested that students with disabilities and other at-risk students who may lower a school's academic ranking may be kept out of testing through indirect methods, including subtle forms of encouraging students to drop out (Heubert; Langenfeld, Thurlow, & Scott, 1997; Shepard, 1991). While NCLB includes requirements

that would limit such measures, the evidence suggests that some schools may place their testing status above the immediate needs of troubled students (i.e., providing therapeutic services).

Given that cognitive-behavioral interventions are provided in schools, how is fidelity to intervention, the *sine qua non* of effective intervention, preserved? Fidelity to intervention is predicated on appropriate training of the interventionists. Questions emerge as to how educators can find the time for training and how they can assume new roles providing cognitive-behavioral interventions. General educators at the secondary level typically instruct and manage records for about 150 students at a given time. Special education school staff are often overworked, having inordinate paperwork burdens and sizable caseloads (Carlson & Billingsley, 2001; Coleman, 2000; SPENSE Fact Sheet, 2002), which suggests that these educators are generally not available for training and implementation of specialized intervention programs. Many school systems have responded to this situation by conducting similar interventions through specially trained "floating" behavior intervention specialists, traveling from school to school, and often funded through federal grant programs, such as Safe and Healthy Schools.

Interventions in schools require stakeholder buy-in. Well-known, schoolwide change programs, such as Positive Behavioral Interventions and Supports (PBIS) and the Resolving Conflict Creatively Program, require a staff buy-in of 80% or better as part of their agreement to provide local school training. While school staff buy-in and compliance with an intervention is critical (Stark et al., 1989), student and family involvement and investment is equally critical (Lochman et al., 2000; Stark, Sander, Yancy, Bronik, & Hoke, 2000). The importance of client *treatment acceptability* to successful interventions has been raised in much of the efficacy/effectiveness research (Chambless & Hollon, 1998; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Kratochwill & Stoiber, 2000).

An ongoing criticism of cognitive-behavioral and related interventions for several decades relates to generalization and maintenance of treatment effects (Conoley, 1989; Gresham, 1985; Mathur & Rutherford, 1996). The literature provides mixed support for the long-term maintenance and generalization

of treatment effects. For example, Barret, Duffy, Dadds, & Rapee (2001) report significant maintenance of treatment effects for children provided with cognitive-behavioral treatment for anxiety disorders six years following treatment. Likewise, a review of research on cognitive-behavioral interventions for depression (Stark et al., 2000) as well as evidence on treating anxiety disorders (Kendall, Chu, Pimentel, & Choudhury, 2000) point to promising longer-term outcomes.

On the other hand, a review of research on lasting treatment effects in CBM-based aggression reduction interventions (Lochman et al., 2000) showed mixed findings, with some studies demonstrating longer-term benefits and data from Anastopoulos and Gerrard (2003) suggesting less than impressive results of a cognitive-behavioral intervention to maintain initial gains in a population of students with ADHD. Issues related to the specific nature of the CBM intervention (Sturmey, 2004), the duration and intensity of the original intervention, and the nature and severity of the target behavior must be taken into account when attempting to assess the overall efficacy of any intervention to promote change over time and across settings.

There has been some suggestion that many of the schoolwide programs that incorporate CBM procedures within an intervention package have failed to adequately consider key contextual variables (e.g., the school and classroom setting, the peer group, the family) (Guerra et al., 1997). Without serious consideration of the context within which the child must function, short-term gains are unlikely to be sustained. Without concomitant changes in the context within which a child functions, the affects, cognitions, and behaviors that resulted in problems are likely to resurface. Another suggested problem leading to poor maintenance and generalization is the tendency to terminate treatment sessions shortly following improvement in symptoms (Quinn, Kavale, Mathur, Rutherford, & Forness, 1999). Issues of race, ethnicity, and culture may also impact the probability of a given outcome being generalized and maintained (Guerra & Jagers, 1999; Vera, Vila, & Alegria, 2003). Cognitive-behavioral models guided by constructs and principles developed in the United States (or other western cultures) with Euro-Americans may not prove universally effective with other cultural groups. There is in fact some support for

differential effectiveness based on ethnicity. For example, in a meta-analysis of the effectiveness of a CBM intervention in reducing classroom disruptive behavior, Ghafoori (2001) reports differential findings on the basis of ethnicity, diagnosis, and socioeconomic status.

Schools represent formidable social systems that often appear extremely resistant to change. Nevertheless, there is substantial support for the effectiveness and desirability of school-based interventions to address both the academic and social needs of the children and youth. Current legislative mandates call for the development of schools that can provide both safety and success for the students being served. Additional research is sorely needed to help specify variables that impact the effectiveness and efficiency with which CBM can be employed by school personnel.

Roles of Special Educators Adapting Cognitive-Behavioral Techniques to Everyday Use in Schools: What is “good” science?

Prior intervention research has demonstrated that teachers and paraprofessionals can play instrumental roles in the delivery of cognitive-behavioral interventions. Cognitive-behavioral techniques have been successfully used in school-based programs to address problems including anger/aggression, anxiety, and depression. For example, in many cognitive-behavioral interventions, students are taught a variant of a self-instructional procedure similar to S.T.O.P. (Stop—Think—consider Options—make the best choice and Proceed). Would it be appropriate or inappropriate for a trained special education teacher to instruct his/her students in this type of procedure, even though the technique may be part of a more formal, stand-alone, evidence-based therapeutic intervention or more comprehensive prevention program? Is it good science and practice to attempt to extract a procedure that is embedded in a more comprehensive evidenced-based intervention program and apply it in similar contexts? Is there any difference between an evidence-based intervention and a sound teaching practice and/or strategy that is based on prior research?

A strict reading of evidence-based standards for educational and therapeutic interventions might initially suggest *not*, because (a) there is no control to ensure that the way in which

the teacher will implement the procedure is functionally equivalent to the implementation as formally evaluated in prior research that demonstrated efficacy/effectiveness; (b) related to the last point, by implementing only a subset of an established intervention protocol, the original demonstration of efficacy is not necessarily applicable to the partial implementation scenario; (c) the required interventionist and subject characteristics, as well as the context and setting, may not correspond to that for which the previously evaluated CBM intervention was intended; and (d) the linkage among assessment, intervention planning, service delivery, and post-intervention evaluation—all of which are part of the therapeutic intervention process—has been broken, such that the person using the CBM technique is essentially transplanting a technique and using it in a free floating, ad lib fashion.

On the other hand, educators and other professionals constantly use proven techniques that have been demonstrated to be both effective and sound practice over the years and that can easily pass an expert consensus test. For example, when students in a special education teacher preparation program, learning crisis management techniques, are trained to maintain a calm voice, employ neutral body language, and talk to the student in crisis in a respectful manner, there is typically no formal body of efficacy/effectiveness intervention research that can be cited as a basis for this type of intervention approach. Would the field discontinue this type of training, while calling these three procedures an “intervention,” and wait for a body of randomized controlled trials to provide clear evidence evaluating only these three techniques as a stand-alone intervention? Certainly not. Pressley (2002) discussed an analogous situation related to early literacy interventions, noting the advisability of transporting elements of the Reading Recovery Program and the Benchmark School phonics by analogy approach.

The question at hand then becomes: What is a reasonable standard by which to make decisions to adopt certain intervention techniques that are part of an evidence-based intervention and that appear to match well with a student’s needs? We do not suggest a direct answer to this question at this time. Rather, the editors encourage the reader to keep this question in mind while reading the articles in

this special issue. In the last section of this article we preview the content of this special issue, noting key issues that authors address, several common threads across these manuscripts, and reasons why these contributions are critically important to professionals serving students with EBD.

Overview of the Special Issue

The special issue begins with an examination by Gresham of methodological issues in providing cognitive-behavioral interventions (CBI) for children and adolescents with EBD. After reviewing fundamentals of CBM, Gresham summarizes key attributes of evidence-based intervention and criteria used to identify efficacy and effectiveness. He then examines empirical evidence for cognitive-behavioral treatments and discusses several methodological issues, including defining empirical support, clinical significance and associated metrics, and treatment integrity.

The next three articles deal substantively with cognitive-behavioral interventions for aggression, anxiety, and depression. Smith, Lochman, and Daunic begin their discussion of cognitive-behavioral interventions for aggression with an overview of aggressive behavior and intervention approaches used to ameliorate these difficulties. Setting the stage with an explication of a contextual social cognitive model applied to student aggression, they review cognitive-behavioral interventions for aggression and focus on two programs—the *Anger Coping Program* and the *Tools for Getting Along Curriculum*. Results of efficacy and effectiveness research on these interventions are reviewed and recommendations to the field are presented.

King, Heyne, and Ollendick bring an international collaboration to the special issue, discussing cognitive-behavioral treatment of anxiety and phobic disorders in children and adolescents. The authors focus specifically on developments in empirically supported CBI for generalized anxiety, separation anxiety, social phobia, specific phobia, and school refusal, with attention to interventions for children with disabilities. Intervention research is reviewed with a greater focus on randomized controlled trials and an exclusion of analogue studies, thus strengthening the evidentiary base of their findings.

Cognitive-behavioral interventions for

depression are examined by Maag and Swearer, with a focus on school-based treatments. The nature of childhood and adolescent depression is discussed, along with prevalence data and types of interventions used to treat depression. The mechanisms of CBI treatment for depressions are explicated drawing from existing intervention protocols. Maag and Swearer discuss how CBI techniques for depression can be appropriately used in school settings under clinical supervision, and also discuss roles for school psychologists and special education personnel. Specific CBI procedures for depression are reviewed along with empirical studies of these interventions.

A cognitive-ecological intervention model—a derivative of traditional cognitive-behavioral modification—is discussed by Guerra, Boxer, and Kim. The authors examine cognitive development vis-à-vis social-ecological factors in the child's life, reviewing research on social information processing, ecological theory, cognitive development, developmental psychology, and transactional processes. The theoretical aspects of the model are linked to prevention and intervention initiatives such as the Metropolitan Area Child Study, FastTrack, and Project LIFT. Coordination among levels of contextual influences on the child and the child's cognitive status is discussed along with an examination of roles of schools and families in fostering success for students with emotional and behavioral disorders.

The special issue closes with a thought provoking discussion by Gerber and Solari of challenges and future directions for the field, providing cognitive-behavioral interventions to students with emotional and behavioral disorders. The authors explore aspects of classrooms and schools relative to implementing behavioral technologies and discuss several major issues and challenges the education profession must face. Teacher roles, organizational constraints, and "hidden problems" are examined. While suggesting that it may be very difficult to effectively implement cognitive-behavioral interventions in schools, Gerber and Solari conclude with a message of hope, suggesting that with sufficient effort towards concurrent large-scale training and capacity building, CBIs can ultimately benefit students.

The special issue editors are excited to facilitate this collaborative effort across special education and psychology, bringing

together a leading group of scholars in the area of cognitive-behavioral interventions. It is our hope that this special issue lays the groundwork for future collaboration across these disciplines and for continued attention within the field of special education to the promise of cognitive-behavioral and related intervention approaches.

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