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Contents

Election Results

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Dean McKay (2009–2012)

Secretary-Treasurer:
Denise Davis (2010–2013)

Special Series: Dissemination

What Better Place Than Here? What Better Time Than Now? ABCT's Burgeoning Role in the Dissemination and Implementation of Evidence-Based Practices

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"Taking It to the Streets: Advancing the Dissemination of CBT" was a timely theme for the 2008 ABCT conference in Orlando. Major gains have been made in identifying efficacious interventions for treating psychopathology over the last two decades (Chambless & Hollon, 1998; Chorpita et al., 2002; Lonigan, Elbert, & Johnson, 1998; Silverman & Hinshaw, 2008; Task Force on Promotion and Dissemination of Psychological Procedures, 1995; Weisz, Hawley, & Doss, 2004). The annual conference provided the occasion to recognize remarkable contributions to the development and delivery of state-of-the-art behavioral health care. Our membership has the opportunity to capitalize on the momen-

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INSTRUCTIONS *for* AUTHORS

The Association for Behavioral and Cognitive Therapies publishes *the Behavior Therapist* as a service to its membership. Eight issues are published annually. The purpose is to provide a vehicle for the rapid dissemination of news, recent advances, and innovative applications in behavior therapy.

- Feature articles that are approximately 16 double-spaced manuscript pages may be submitted.
- Brief articles, approximately 6 to 12 double-spaced manuscript pages, are preferred.
- Feature articles and brief articles should be accompanied by a 75- to 100-word abstract.
- Letters to the Editor may be used to respond to articles published in *the Behavior Therapist* or to voice a professional opinion. Letters should be limited to approximately 3 double-spaced manuscript pages.

Submissions must be accompanied by a Copyright Transfer Form (a form is printed on p. 24 of the January 2008 issue of *tBT*, or contact the ABCT central office): *submissions will not be reviewed without a copyright transfer form*. Prior to publication authors will be asked to submit a final electronic version of their manuscript. Authors submitting materials to *tBT* do so with the understanding that the copyright of the published materials shall be assigned exclusively to ABCT. Submissions via e-mail are preferred and should be sent to the editor at **drewa@albany.edu**. Please include the phrase ***tBT submission*** in the subject line of your e-mail. Include the first author's e-mail address on the cover page of the manuscript attachment. By conventional mail, please send manuscripts to:

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tum of the conference through the continued coordination and expansion of our efforts towards the dissemination and implementation of evidence-based practices (EBPs). The purposes of this manuscript are to: (a) summarize working definitions and models of dissemination and implementation, (b) demonstrate how ABCT is in a prime position to spearhead organized social networking, research, and training efforts to further promote the dissemination and implementation of EBPs, and (c) describe efforts within ABCT to do so, both internally and on a broader stage with the public at large. The ideas presented in this manuscript are humbly offered with the hope of inspiring continued synergistic dialogue and discovery about the ways we can use the science of our field to promote better practices as broadly as possible.

The Processes of Dissemination and Implementation

Outside of the behavioral health field, models of dissemination and implementation have emerged that also apply to innovations in treatment (e.g., Bracht, Kingsbury, & Rissel, 1999; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Greenhalgh et al., 2005; Martin, Herie, Turner, & Cunningham, 1998; Rogers, 2003). According to Rogers' (2003) widely referenced innovation-diffusion theory, dissemination is the process by which information about an innovation is spread or made available. Historically, dissemination of research findings regarding effective treatments has been largely unidirectional from scientists to stakeholders (Beutler, Williams, Wakefield, & Entwistle, 1995). Research indicates, however, that unidirectional dissemination alone does not result in practitioner adoption of EBPs and the subsequent delivery of EBPs to consumers (Grimshaw et al., 2001).

An alternative perspective is one that characterizes dissemination as a reciprocal exchange of information between EBP advocates (e.g., researchers, treatment developers, consultants) and other behavioral health stakeholders (e.g., consumers, clinicians, policymakers; Rogers, 2003; Stirman, Crits-Christoph, & DeRubeis, 2004). Such an approach engages stakeholders in an ongoing dialogue about the nature of existing services and the extent to which these services are working in local settings. The goal of such dialogue is to determine collaboratively which features of the innovation address a need within a given context so that the intervention can supplement, rather than replace, existing effective procedures (Bracht et al., 1999; Martin et al., 1998; Rogers, 2003; Torrey, Lynde, & Gorman, 2005).

The reciprocal dialogue of dissemination also yields valuable information regarding contextual factors that form the backdrop for implementation. Implementation involves fitting the desired features of the intervention into existing service delivery systems (Chambers, Ringeisen, & Hickman, 2005) in ways that support long-term sustainability of better practices (Daleiden & Chorpita, 2005). Models characterize dissemination and implementation as complementary and complex processes that involve attention to a number of interconnected factors such as service delivery structure, training and consultation, identification and measurement of meaningful outcomes, and organizational structure and resources, to name but a few (Bracht et al., 1999; Martin et al., 1998; Rogers, 2003; Stirman et al., 2004). Two ambitious qualitative reviews of implementation research across diverse fields (e.g., agriculture, business, information technology, social sciences) suggest that successful implementation occurs in organizations that foster knowledge sharing, have visionary leaders, utilize careful staff selection methods, offer effective and ongoing training and coaching, provide administrative support, and establish staff, program, and system monitoring and feedback procedures (Fixsen et al., 2005; Greenhalgh et al., 2005). That these findings emerged from studies characterized by varied conceptual and empirical approaches gives weight to the conclusions of these reviews (Fixsen et al.) and provides a jumping-off point from which our organization can advance the dissemination and implementation of EBPs in the behavioral health field.

The Role of ABCT in the Dissemination and Implementation of EBPs

Over the last three decades, treatment pioneers within our membership have been designing, testing, and refining state-of-the-art treatments with great success. However, we have not yet witnessed widespread dissemination and implementation of EBPs within the service settings (e.g., schools, community mental health centers) through which most consumers access behavioral health services (e.g., Weisz, Chu, & Polo, 2004; Weisz, Jensen, & McLeod, 2005). Unlike the frameworks that have developed over the last 15 years for evaluating the evidence supporting cognitive and behavioral interventions (cf. Chambless, 1996; Chambless et al., 1998; Chorpita et al., 2002; Silverman & Hinshaw, 2008; Task Force on Promotion and Dissemination of Psychological Procedures, 1995), empirically based dissemination and implementation initiatives specific to behavioral health care are still in their infancy.

As the flagship organization for the study of behavioral and cognitive change, ABCT is in a unique position to spearhead extraordinary organized efforts to promote the dissemination and implementation of EBPs in community settings. We are fortunate to face both the opportunity and responsibility to maximize the contributions made by the great achievements in treatment development and facilitate collaborative efforts for getting our field's most valuable interventions to the people whom they are intended to help. As an organization grounded in science, we can advance the study of emerging models of dissemination and implementation through the use of promising methodologies to help develop evidence-based strategies for improving practices. In the sections that follow, we highlight multiple strategies that fall under the broad categories of social networking, research, and training.

Social Networking

That the success of dissemination and implementation of EBPs is grounded in the strength of partnerships between the research and practice communities is a near-universal theme evident in theoretical models (Stirman et al., 2004), empirical research (e.g., Glisson & Schoenwald, 2005), implementation initiatives (Bruns et al., 2008; Torrey et al., 2005), and expert opinion (e.g., Goldman & Azrin, 2003). Social networking, therefore, may be our organization's most valuable strategy to prioritize dissemination and implementation of better practices within the behavioral health field.

Our members share a commitment to the advancement of behavioral and cognitive therapies that is manifest in a variety of professional endeavors, including treatment development, services research, practice, consultation, and teaching/training. The creation of opportunities for synergistic discussion within ABCT's interdisciplinary membership, such as communities of practice (Lave & Wenger, 1991; Wenger, 1998), has the potential to form valuable partnerships. Such a network functions as a learning community in which members with diverse experiences frequently interact to share their collective wisdom and collaboratively determine new and beneficial courses of action for its members. A community of practice aims to educate community members not only about specific practices or programs, but also about the science and practice of implementation.

It is therefore important that we continue to find ways to act as ambassadors of EBPs and invite other professionals outside of our own organization to join what we are convinced is a vital conversation regarding the effective deployment of behavioral health interventions. Quite a few groups exist that promote interdisciplinary exchange on these issues (e.g., Campbell Collaboration; Treatment Fidelity Workgroup of the National Institutes of Health Behavior Change Consortium; The Child and Family Evidence-Based Practices Consortium). Although few journals are solely devoted to implementation research (one exception being *Implementation Science*), a number of journals routinely publish articles related to the dissemination, implementation, policy, and service delivery of EBPs (e.g., *Administration and Policy in Mental Health and Mental Health Services Research*, *Clinical Psychology: Science and Practice*, *Psychiatric Clinics of North America*, *Psychiatric Services*), thereby providing an additional means by which to increase the reach of our interdisciplinary dialogue and advance the science of implementation.

Most importantly, it is time that our conversations include not only each other, but also those with whom we must partner to realize change in service delivery, because in the end, the success of our dissemination and implementation efforts will be determined at the local level. Through dialogue, we can learn what is currently being done and to what extent it is working, develop an appreciation for the local context, and identify how EBPs, or their adaptations, fit in with the goals and structure of the organization (Adelman & Taylor, 2003; Rogers, 2003). Moreover, we can collaboratively establish and execute plans to bring about implementation and long-term sustainability of EBPs within a system (Fixsen et al., 2005; Rogers, 2003). It is through strong science and practice partnerships that we can maximize the opportunities for innovation and mutual discovery and enhance the capacity of our field to enrich the lives of those in need.

The success of our efforts also will be established in part by our ability to effectively use the very principles that are at the core of ABCT and the treatments we promote. Dissemination and implementation are about individual and organizational behavior change in complex contexts, and we have some of the tools to optimize the conditions that make such change probable. Through dialogue, we can elucidate what consumers, therapists, administrators, and organizations want and need (Adelman & Taylor, 2003; Rogers, 2003). We can also identify behaviors to be changed and organizational structures, policies, and practices that facilitate or impede the implementation of EBPs (Goldman & Azrin, 2003). Concepts such as establishing operations and reinforcement schedules, as well as cognitions, core beliefs, and salient features of the behavioral context are all relevant to efforts to disseminate and implement efficacious interventions. When we understand what is rewarding and punishing in these contexts, we can adapt our treatments and our dissemination and implementation strategies accordingly. It is only the target, rather than the processes, of change that requires us to broaden our organizational focus to address these new and necessary challenges. In this way, we can apply existing behavioral science to our efforts while contributing to the empirical base regarding successful and unsuccessful dissemination and implementation strategies.

Research

Our field has taken positive steps toward conducting effectiveness research to increase the external validity of treatments developed in research labs, yet "the progression from effective treatments to their implementation and dissemination into real-world practice settings is through largely uncharted scientific territory" (Hoagwood, 2002, p. 212). Fortunately, a growing number of empirical approaches to dissemination and implementation, including randomized controlled trials (RCTs), community-based treatment development, practice-based evaluation, and state service system reforms, seem to be promising first steps in navigating the deployment of EBPs into practice settings.

Just as RCTs have advanced the identification of effective treatments, so too can experimental design be used to identify effective implementation components. For example, Henggeler and colleagues are paving the way in this line of research by examining the association between supervisory practices that approximate those found in community settings and treatment fidelity (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997; Henggeler et al., 1999). Results suggest that intensive supervision practices are related to high treatment fidelity, but that some therapists can achieve high fidelity with less intensive supervision as well (Henggeler et al., 1997). Studies such as these provide valuable information regarding EBP implementation factors in clinical settings.

The use of rigorous experimental methods also holds promise for testing models of implementation. Research of this nature is currently being conducted on the organizational and community intervention model "ARC" (Availability, Responsiveness, and Continuity; Glisson, 2002). The goal of this model is to address organizational needs to promote a good fit between the intervention and the service delivery context (Glisson & Schoenwald, 2005). Within the context of an RCT involving child welfare and juvenile justice caseworkers, researchers demonstrated lower turnover and improved organizational climate (e.g., reduced role conflict and emotional exhaustion for caseworkers) for case management teams randomly assigned to receive the ARC organizational intervention compared to teams in the control group (Glisson, Dukes, & Green, 2006). ARC is also being studied within an RCT comparing multisystemic therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009)

to usual-care services in eight counties in rural Appalachia (Glisson & Schoenwald, 2005). Experimental research designs such as these provide valuable information regarding the conditions under which the partnership between science and practice can improve the availability and delivery of EBPs.

Continued efforts toward not only transporting treatments but actually developing treatments in the practice settings in which they will be provided and in partnerships with practitioners and consumers to whom they will be delivered holds the potential to accelerate the deployment of interventions (Atkins, Frazier, & Cappella, 2006; Burns, 2003; Chorpita et al., 2002). In contrast to the traditional approach to treatment development in which treatment effectiveness research occurs only after a treatment is tested in a series of efficacy trials, the Clinic/Community Intervention Development Model (Hoagwood, Burns, & Weisz, 2002) and the Deployment-Focused Model (DFM; Weisz et al., 2004; 2005) advocate transporting the treatment into the clinical setting early in the treatment design process so that contextual features of the practice setting can inform adaptations of the intervention (Burns). An excellent example of a behavioral health intervention that has addressed issues of efficacy, quality, fidelity, and widespread program dissemination and sustainability with research conducted in the intended practice setting is the Teaching-Family Model of group home treatments (Fixsen & Blasé, 1993; Wolf, Kirigin, Fixsen, Blasé, & Braukmann, 1995). Fixsen and Blasé detailed the 27-year evolution of the Teaching-Family Model of group home treatments from prototype development to national dissemination. A series of unsuccessful replication attempts yielded valuable information regarding key treatment delivery components that in turn paved the way for a series of successful replication attempts to solidify program development. Ultimately, this iterative process of replication informed the creation of standardized procedures for site selection, therapist selection, training, supervision, and consultation that has allowed this program to achieve widespread and long-term sustainability (Burns).

From an evidence-based perspective, it has not yet been demonstrated that the introduction of EBPs will necessarily bring about improved outcomes in service delivery settings (Weisz, Chu, et al., 2004) or that introducing EBPs is the only way to improve current practice (Riemer, Rosof-Williams, & Bickman, 2005); thus, studying usual-care services may be particularly informative to the deployment of better practices (Garland, Hurlburt, & Hawley, 2006; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001). Local practice-based evaluation initiatives, such as Practice and Research: Advancing Collaboration (Garland et al., 2006), a hybrid study, employ rigorous measurement methods and yield valuable externally valid information regarding service components and contexts, as well as their association with treatment outcomes (Garland et al.). Moreover, such designs can highlight strengths and potential opportunities to introduce relevant innovations to improve service within a system of care.

Practice-based evaluation initiatives are also in place in a number of state mental health systems (Bruns & Hoagwood, 2008). Within the Child and Adolescent Mental Health Division in Hawaii, data on treatment-related factors (e.g., treatment progress ratings, therapy elements, consumer satisfaction) are aggregated across similar individuals (based on demographics, diagnosis, etc.) served within the system (see Daleiden & Chorpita, 2005). These aggregated data are used to identify potentially successful intervention strategies for new cases that enter the system. This is just one example of many diverse data-informed efforts at the state level geared toward improving practices within large systems of care (Bruns & Hoagwood; Isett et al., 2008; Magnabosco, 2006). Qualitative reviews also highlight a number of common themes in the approaches to introducing EBPs in state systems of care (Bruns et al., 2008; Isett et al.), but more empirical research guided by theory and models would augment our knowledge of successful long-term implementation. Moving in the direction of practice-based evaluation has especially important implications for the way we train early career investigators.

Training

We are at an exciting juncture in the history of applied behavioral health. We have an opportunity to shape the identity of the field and the future of the allied professions. Behavioral health care is moving away from a clinician-based model in which a clinician's personal or theoretical preference determines the treatment approach (Dulcan, 2005). Emerging in its place is an industrialized model involving greater standardization of training and treatment procedures, as well as more attention to treatment fidelity and quality assurance (Hayes, Barlow, Nelson-Gray, 1999). One needs only to look at the success of the interventions that have used a successful business model (e.g., Multisystemic Therapy, The Incredible Years) to glimpse the changing landscape of behavioral health care. As this landscape changes, so too do the roles of behavioral health scientists and practitioners (Cummings, 1995; Hayes et al., 1999).

As an analogy to contemporary changes in the helping professions, consider the structure of the aviation industry. When a new plane is designed for commercial aviation, engineers conduct analyses of flight parameters for maneuvers such as takeoff, landing, and in-flight navigation. Landing parameters, for example, include altitude, speed, and required runway length. Test pilots then fly the plane to verify and validate these flight characteristics. When optimum parameters have been identified, they become the standards for that particular aircraft. Commercial pilots who fly these planes undergo standardized training in these parameters and must meet minimum FAA standards for competence, cumulative flight hours, and the like. Most of the time, pilots adhere to these landing parameters within a narrow window and use their professional judgment to account for environmental influences (e.g., weather) when necessary. On occasion, pilots need to deviate significantly from protocol to ensure the safety of their passengers, as exemplified by the heroism of Pilot Chesley Sullenberger when he landed a U.S. Airways jet in the Hudson River in January 2009.

The aviation industry serves as an analogy for the future of applied behavioral health as an industrialized profession and the expanding interface between science and practice. Some of us will continue to conduct intervention and services research to develop and test EBPs for particular problem areas, populations, and settings. When effective interventions have been identified, others among us will participate in high-quality training and demonstrate standards of clinical competence in EBPs. Clinical judgment will guide the flexible delivery of EBPs while empirically tested quality assurance procedures will ensure an acceptable range of treatment integrity. On occasion, significant deviations from protocol will require exceptional clinical judgment because no EBP exists to address the clinical crisis.

The emerging landscape of an industrialized profession and the changing roles of behavioral health professionals bring to bear significant implications for the training students receive. Our organization can join

the dialogue regarding the importance of certain core competencies for behavioral health graduate students. Within graduate programs focused on scientists or scientist-practitioners, training in program evaluation, field research methodology, and public policy would equip students with the requisite skills for developing or implementing better practices in the community. Currently, students receive training primarily in basic research and experimental designs. Certainly, the questions addressed by basic research (e.g., "Does positive reinforcement increase the likelihood of compliant behavior?") provide valuable information regarding principles that can be applied to social problems (McKnight, Sechrest, & McKnight, 2005). Yet, by providing high-quality training in program evaluation and field research methodologies within direct service systems, research can better address specific questions (e.g., "Does the Good Behavior Game program improve students' classroom behavior and reduce the likelihood of future delinquency?") that are relevant to behavioral health stakeholders with whom we partner (Sechrest & Bootzin, 1996).

Within graduate programs geared more toward practitioners, training in evidence-based assessment and treatment would begin early in graduate education so that trainees would develop not only the technical skills to deliver EBPs, but also the clinical skills required to deliver EBPs flexibly and successfully (Addis & Krasnow, 2000; Craighead & Craighead, 1998; Herschell, McNeil, & McNeil, 2004). There exist limitations to our science such that EBPs have not been identified for every behavioral health problem (Schiffman, Becker, & Daleiden, 2006) and an EBP specified for a particular problem may not work for every individual with that problem; therefore, clinician training might also entail "evidence-based thinking" (Chorpita & Daleiden, in press; Hamilton, 2004). This approach involves training practitioners how to engage clients in a shared exchange of information and collaborative decision-making to identify the best available practice to address client needs (Dulcan, 2005). Training in evidence-based thinking (Hamilton, 2004) and other clinical decision-making strategies (e.g., Daleiden & Chorpita, 2005) may enhance the clinical judgment that practitioners exercise. In these ways, then, future generations of scientists and practitioners can engage in complementary endeavors that advance the dissemination and implementation of better practices.

Taken as a whole, dissemination and implementation efforts tend to be characterized as social, reciprocal, and dynamic processes. As the vanguard organization for the study of behavioral and cognitive change, we believe that ABCT as a whole is in a unique position to facilitate multiple dissemination and implementation strategies under the broad categories of social networking, research, and training. We now turn our attention to a subsidiary group nested within our overarching ABCT organization, and its preliminary efforts towards change.

Dissemination and Implementation Science Special Interest Group

The Dissemination and Implementation Science (DIS) Special Interest Group (SIG) was established during the 2008 convention to promote research on how to better disseminate and implement evidence-based practices by behavioral health care stakeholders. The three overarching and ongoing objectives of this SIG are to (a) help members network with like-minded colleagues; (b) collaborate with stakeholders to identify what works for them, what they need, and how best to provide evidence-based practices; and (c) communicate the benefits of EBPs in order to increase stakeholder demand for effective treatments. In efforts to make preliminary progress on these objectives, DIS SIG members consensually agreed to work toward both short- and long-term goals in the areas of social networking, research, and training.

With regard to social networking, our first short-term goal is to promote participatory collaboration within the DIS SIG and ultimately within ABCT, with a particular emphasis on collaborations that are interdisciplinary in nature and comprise individuals who have previously never worked together. Second, we decided it a worthwhile initiative to increase both our SIG's, and, more importantly, ABCT's, overall membership diversity (along a number of parameters such as training, profession, academic degree, current employment setting, etc.). Our third short-term goal is to create opportunities for members to network with colleagues who share common interests in dissemination and implementation. Our longer-term goals are to strengthen and expand our SIG membership in a variety of ways, including formally building ongoing feedback mechanisms into our infrastructure for steering our agenda collaboratively, increasing dissemination and implementation foci within ABCT, and boosting efforts for promoting our overall DIS SIG agenda outside of ABCT (e.g., formalizing links with practice organizations and/or other dissemination and implementation networks).

Leveraging individual strengths and areas of expertise across numerous DIS SIG members, we collaboratively defined how to measure and monitor our proposed behavioral changes, as well as benchmarks for success within each monitoring system. For example, with regard to our first short-term goal of increasing participatory collaboration within our SIG, we aim to have SIG members who had not previously done so collaborate with each other on at least one professional project annually. Concerning our second goal of increasing diversity within our SIG, we continuously strive toward a membership not overly represented by one particular type of stakeholder. For example, we agreed that as a starting point, 10% or more of our members will represent professionals other than professors or students from university settings. Additionally, it was decided that the balance between youth- and adult-focused stakeholders should never reach a ratio of more than five-to-one (or vice-versa). The illustrations above are only examples within our tangible social networking goals, but do help to demonstrate the idea of a community of practice sharing its collective wisdom to determine new and beneficial courses of action in a way consistent with principles for behavior modification (e.g., measurement, data collection, benchmarking, etc.).

Our research and training initiatives go hand in hand. We strive to promote awareness of innovations, research, and difficulties related to dissemination and implementation issues for mental health services research. Our second goal in this area is to focus on research initiatives to increase the transmission of knowledge between various stakeholders (e.g., community-based clinicians, program administrators, researchers, consumers, etc.) and facilitate junior faculty research. Third, concerning training efforts in evidence-based practices, we aim to provide resources for those who are interested in training and implementation outside the context of research (e.g., administrators from community mental health agencies).

Two themes in the SIG's planned actions are especially noteworthy and cut across all established goals. First, as discussed earlier, dissemination and implementation efforts are reciprocal and ongoing social processes. As such, strengthening the interdisciplinary nature of ABCT seems a worthwhile effort towards the goal of facilitating a wide range

of dissemination and implementation efforts (e.g., training, consultation and coaching, program evaluation, etc.). Second, in order for dissemination and implementation efforts to be successful, initiatives should be ongoing and continually move forward throughout the year outside of the context of our annual conference. In other words, the closing of our 2008 convention does not mean we stop "taking it to the streets." Rather, perhaps the close of the 2008 convention represents one of several formalized starting points for increasing focus on all dissemination and implementation efforts. At this point, however, we humbly and explicitly acknowledge that we still know very little about where this new road will take us, or even what the road looks like. Therefore, as a SIG we genuinely invite feedback from all members regarding the suitability of our goals and the strategies we use to achieve them throughout our year-long initiatives. It is only through an ongoing, spirited, and reciprocal interdisciplinary exchange that we can begin down this road and stay on course. What better place then here, what better time than now?

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Training as Usual: Can Therapist Behavior Change After Reading a Manual and Attending a Brief Workshop on Cognitive Behavioral Therapy for Youth Anxiety?

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There exists an ongoing movement to transport empirically supported treatments (ESTs), developed and evaluated in research clinics, to service providing clinics. ESTs refer to psychological interventions that have been evaluated scientifically (e.g., randomized controlled trial; RCT) and satisfy the Chambless and Hollon (1998) criteria (Kendall & Beidas, 2007). Dissemination research encompasses both dissemination (purposeful distribution of relevant information and materials to clinicians) and implementation (adoption and integration of EST in clinical practice) of ESTs (Lomas, 1993). However, for a variety of reasons (Addis & Krasnow, 2000; Riley, Schuman, Forman-Hoffman, Mihm, Applegate, & Asif, 2007), resistance to dissemination and implementation exists. We focus on training therapists in ESTs (i.e., dissemination). Thus, a key question arises: Do current training efforts practiced in the community (i.e., reading a manual and attending a brief training workshop) effectively influence therapist behavior in those who are naïve to fundamental principles of an EST?

Scant research exists in this area. Studies that have addressed this question have focused on training providers in adult treatment, primarily for substance use (see Beidas & Kendall, in press, for a review of training studies; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Morganstern, Morgan, McCrady, Keller, & Carroll, 2001; Sholomskas et al., 2005). Additionally, these studies have frequently included supervision, coaching, and longer training times than typically observed in community practices. Typically, these studies have used the "gold-standard training" observed in RCTs (Sholomskas et al.) to identify best training practices. The evidence from these studies suggests that knowledge increases after receiving training in an EST but that change in actual therapist behavior may not be achieved without supervision and feedback on behavior (Beidas & Kendall, in press). The question of what best training practices ought to entail remains unanswered.

More fundamentally, the effect of current community training practices on therapist knowledge and behavior has received meager research attention. Do brief workshops (such as a 2- to 3-hour continuing education seminar) and reading a manual influence therapist knowledge and behavior in therapists who are naïve to the principles of an EST? Given that continuing education workshops tend to be the main vehicle through which practitioners gain experience in newer treatments (Herschell, McNeil, & McNeil, 2004), this is an important area of inquiry. Two studies have addressed this question (DeViva, 2006; Rubel, Sobell, & Miller, 2000), but further study is warranted given study limitations. In one study, therapist behavior changed following a 3-hour workshop (DeViva). However, training was on a particular technique (i.e., increasing client motivation) rather than a treatment program. In another study, therapist behavior changed following 2 days of training on motivational interviewing (Rubel et al., 2000). However, in this study, therapist behavior was gleaned from written responses rather than rated therapist behavior. Additionally, the time of training exceeded that of general continuing education workshops, which tend to be half days or full days at their longest (Herschell et al., 2004).

There has yet to be a reported empirical investigation of training in ESTs for youth (Herschell et al., 2004), nor has there been a reported empirical investigation of the dissemination process with graduate trainees. Graduate trainees are especially relevant because they provide an analogue for training practitioners who are naïve to the principles of a particular EST. Additionally, there is concerning evidence that graduate students are not receiving training in ESTs in their graduate programs: A recent study reported that fewer than 50% of graduate students were expected to use ESTs in their training programs and practica (Hunt & Wisocki, 2008). Training in treatment modalities may influence therapist attitudes and openness to such treatments. Karekla, Lundgren, and Forsyth (2004) reported that graduate students exposed to ESTs in the classroom and through practica held more positive attitudes than students without these experiences. Addis and Krasnow (2000) found less favorable attitudes towards ESTs among practitioners, and attitudes towards ESTs may be more favorable for those beginning their careers (Karekla et al., 2004). It is relevant to study dissemination with a graduate trainee sample because they can arguably be the most salient individuals to bridge the research-practice gap.

The present study addressed disseminating an EST to clinically focused graduate trainees with limited training in the EST to be disseminated. One EST for youth anxiety was selected (i.e., cognitive-behavioral therapy [CBT]; Coping Cat; Kendall & Hedtke, 2006). This study evaluated whether a manual and a brief workshop would result in therapist behavior change in a group of trainees seeking service careers.

Method

Participants

The current study consisted of 20 graduate students ($N = 20$) in clinical psychology, ranging in age from 22 to 46 years ($M = 25.95$, $SD = 5.24$; 85% female; 100% Caucasian). Participants were in their second year of graduate training, and ranged in general clinical experience from 0 to 70 months ($M = 10.45$, $SD = 17.30$). When asked to describe their identification with CBT (7-point scale; 1 = *do not identify*, 7 = *strongly identify*), participants rated themselves 4 or higher ($M = 5.60$, $SD = .68$). Two participants had previously provided services for an anxious child using CBT, but did not use the Coping Cat program (Kendall & Hedtke, 2006). Nineteen of 20 participants (95%) had never read the Coping Cat therapist manual; one participant had read part of the manual. All participants had not previously received training in CBT for child anxiety. Past experience with CBT in general was not examined; however, examination of the program's curriculum indicates that, prior to their second year, students would have had one class on psychotherapy, which did not exclusively focus on CBT. Twelve out of the 20 students (60%) completed all out-

come measures (knowledge test and structured role-play), with 8 completing most but not all measures.

Measures

Clinician Demographics and Attitudes Questionnaire. This questionnaire contained 15 items (response format included multiple choice, open-ended, or a 7-point Likert scale), which assessed background information (e.g., months of clinical experience, training orientation, and experience treating youth anxiety), prior experience with the Coping Cat program, and participants' opinions toward ESTs for youth anxiety.

Knowledge Test. The 20-item test included 5 true/false and 15 multiple choice (4 response options) questions to assess knowledge of the Coping Cat program (see below for example).

Which of the following is most true with regard to coping modeling?

(a) Mastery modeling is preferred over coping modeling.

(b) Coping modeling increases the similarity between the observer and the model.

(c) Coping modeling includes initial difficulties (like those of the client), a strategy to overcome the difficulty, and then success.

(d) Both b and c are correct.

Two alternate forms of the knowledge test were developed for use in repeated assessment. The root questions for this test were previously developed and used in training at the Child and Adolescent Anxiety Disorders Clinic (CAADC). Questions for the alternate forms matched the root questions in difficulty and content (rated as comparably difficult by four child anxiety experts). To prevent order effects, participants were randomly assigned a test order. Psychometrics on the knowledge test were obtained via repeated measure (1-week interval) to 10 second-year graduate students at another program. Cronbach's alpha was .76 and retest reliability was .86, indicating temporal reliability. Three of the 10 students had been trained in CBT for child anxiety. Trained students (M = 19.33, SD = .58) scored higher than untrained students (M = 13.71, SD = 2.75), $F(1, 9) = 11.51$, $p = .01$, indicating that the knowledge test was sensitive to training effects.

Structured role-play. Participants were given a three-paragraph vignette of a fictitious youngster presenting for anxiety treatment and asked to demonstrate one of the key components of the Coping Cat program in a structured role-play. Two vignettes were prepared to prevent practice effects and were rated by four child anxiety treatment experts to ensure that they were comparable. Vignettes were randomly assigned. The vignettes were previously used for CBT training in a National Institute of Mental Health–sponsored multisite trial (Child/Adolescent Anxiety Multimodal Study; Walkup et al., 2008).

Each participant was allotted 5 minutes to read the vignette and prepare for the structured role-play. The role-play consisted of the participant interacting with the client, having been asked to demonstrate "preparing the child client for an exposure task." Participants were encouraged to behave as though a child was present in the room with them. This aspect of treatment is a central component of CBT. As an example, one of the vignettes involved the participant preparing a socially phobic youngster to call his grandmother on the phone. The role-plays were videotaped and later independently coded for adherence and skill, and therapist factors, by raters who were blind to participant training condition.

Adherence, a primary outcome measure, is the utilization of the treatment procedures in the treatment of a client (Perepletchikova & Kazdin, 2005). This was assessed by independent evaluators (doctoral graduate students) blind to condition, who watched videotapes of the role-plays and assessed adherence with a checklist. This checklist allowed coders to evaluate whether or not the participants covered the main goals of planning for an exposure—coders scored each category for the presence of the target behavior. The total adherence score demonstrated very good interrater reliability (intraclass coefficient [ICC] of .98). Additionally, 86% of individual items had kappa coefficients of .80 or higher, which indicates substantial interrater reliability (Landis & Koch, 1977). Two items with kappa coefficients of .5 and .55 were not included in the analyses.

Skill can be defined as the level of competence shown by the therapist in the delivery of treatment (Perepletchikova & Kazdin, 2005). Skill and therapist factors were evaluated by independent raters blind to condition using a 7-point Likert scale. The four items that assessed skill and therapist factors showed good interrater reliability (ICCs of .63 to .83; Landis & Koch, 1977) and targeted participant skill and factors that might change as a result of training (e.g., collaborative style, understandable language, confidence).

Procedure

Training. A quasi-experimental pre-post repeated-measures design examined the effects of reading a manual and attending a workshop on therapist behavior and knowledge (see Figure 1). First, participants completed an assessment evaluating their baseline (BL) knowledge of the treatment and demographic information. Note that baseline measures only included knowledge and demographics. Next, each participant was given a copy of the Coping Cat therapist manual describing the 16-session CBT program for youth with anxiety disorders and were asked to spend 2 to 3 hours reading the manual over the next week. One week later (postmanual; PM), participants completed an assessment evaluating their knowledge of the program as well as participated in a structured role-play to assess how they would prepare for an exposure task with an anxious youngster. Subsequently, participants attended a 2.5-hour didactic CBT workshop led by an advanced therapist in the Temple University Child and Adolescent Anxiety Disorders Clinic. This workshop covered each section of the Coping Cat therapist manual in detail, as well as provided illustrative examples in an effort to bring the manual to life. After attending the workshop, all participants completed the PM and workshop (PM + WS) assessment evaluating their knowledge of the treatment and also participated in a second role-play demonstrating preparation for an exposure with an anxious child.

***Figure 1*. Training and Assessment Schedule**

Measure Administered	BL	PM	PM + WS
Demographics Questionnaire	X		
Knowledge Test	X	X	X
Role-Play	X	X	

Note. BL = Baseline, PM = Postmanual, PM+WS = Postmanual and workshop.

Results

Training characteristics. Ninety-four percent (16 of 17) of participants reported that they read the manual at the PM assessment. The mean time reading the manual was 1.74 hours ($SD = 1.37$). All participants completed a 2.5-hour didactic workshop. Mean training time was approximately 4 hours.

Therapist adherence and skill. Adherence and skill were measured after each training condition (PM, PM + WS). See Table 1 for means and standard deviations. The highest possible adherence score was 15, and participant scores ranged from 2 to 9 (PM) and 3 to 11 (PM + WS). No significant effect of training condition on adherence was found, $t(1, 10) = -1.53, p = ns$. The highest possible skill score was 7, and participant scores ranged from 2 to 5 (both PM and PM + WS). Similarly, there was no effect of training condition on therapist overall skill, $t(1, 10) = -.45, p = ns$.

Therapist factors. Changes in therapist factors were measured after each training condition (PM, PM + WS; see Table 1). A significant effect of training on therapist confidence was found: therapists were rated as more confident PM + WS, relative to PM alone, $t(1, 10) = -2.21$, $p = .05$.

Therapist knowledge. Mauchley's test demonstrated that sphericity was not violated, $\chi^2 = .982, p = ns$. The highest possible knowledge score was 20 and scores ranged from 5 to 15 (BL), 10 to 19 (PM), and 16 to 19 (PM + WS). A significant main effect of training on therapist knowledge was observed, $F(2, 32) = 22.51, p = .00$ (partial eta squared = .59; large effect; Cohen, 1988). The mean knowledge score at BL was 12.06 ($SD = 2.56$), at PM was 15.35 ($SD = 2.99$), and at PM + WS was 17.24 ($SD = 1.20$). A priori within-subject contrasts identified a significant difference of knowledge between the BL and PM conditions, $F(1, 16) = 16.26, p = .00$, as well as between the PM and PM + WS conditions, $F(1, 16) = 5.61, p = .03$.

Analyses between completers and noncompleters. To evaluate individuals who completed all measures and the individuals who completed most measures, *t* tests were conducted (note: both groups received all ingredients of the intervention—reading the manual and attending the didactic workshop). Participants who completed all measures (relative to those who did not) believed learning about the treatment to be more useful ($M = 5.75$, $SD = .87$ vs. $M = 4.50$, $SD = 1.07$), $t(18) = -2.88, p = .01$, and spent more time reading the manual ($M = 2.25$, $SD = .5$ vs. $M = .5$, $SD = .5$), $t(15) = -2.9, p = .01$. Noncompleters were included in all analyses when possible.

Clinically significant changes. To examine the relative clinical utility of the two training conditions, the proportion of participants who were successfully trained to criterion in PM and PM + WS were compared. An 80% cutoff score (12 of 15) was used to indicate being trained to criterion for adherence (consistent with other evaluations; e.g., Walkup et al., 2008). None of the participants reached this level of adherence after either training condition. A skill score of 3.5 was used as the cutoff for being acceptably trained to criterion. This cutoff criterion is consistent with past trials evaluating the efficacy of CBT (Caroll et al., 2000). Forty-six percent of the participants (6 of 11) met this cutoff for overall skill at PM, whereas 67% (8 of 12) met this cutoff for overall skill at PM + WS. This did not represent a significant difference between conditions, $\chi^2(7) = 6.65$, $p = ns$. For knowledge, the cutoff of 80% (16 of 20 points) was the indication of being trained to criterion. At BL, 0% (0 of 20) of participants met criterion, at PM, 53% (9 of 20) met criterion, and at PM + WS, 100% met criterion (20 of 20), $\chi^2(2) = 38.05, p = .00$.

Discussion

Although empirical study of the dissemination process (i.e., training) has been encouraged (Silverman, Kurtines, & Hoagwood, 2004), few studies have been reported. The present results indicate that knowledge of CBT for child anxiety increased after reading the manual (relative to baseline) and further improved after attending the didactic workshop. The mean effect size associated with the score increase was large. However, unlike the improvements in knowledge scores, participant adherence, skill, and therapist factors (as measured by independent raters) did not differ after reading the manual versus after attending the workshop and reading the manual (with the exception of participant confidence). Training practices as implemented in this study were not enough to influence therapist behavior in novice clinicians.

The training conditions were examined in relation to clinical significance (see *Journal of Consulting and Clinical Psychology*, Kendall, 1999) and utility by setting a criterion level of acceptable training (i.e., see Sholomskas et al., 2005). Adherence is important because it has been implicated in predicting outcomes (e.g., Hupert, Barlow, Gorman, Shear, & Woods, 2006). None of the participants met the 80% criterion level of adherence after either training condition. Adherence may require additional training and supervision (Bazelmans, Prins, Hoogveld, & Bleijenberg, 2004). Skill is an important aspect of treatment because it has been linked to outcome, even when controlling for adherence (Shaw et al., 1999). Fifty-five percent of the participants demonstrated an acceptable level of skill after reading the manual, whereas 64% achieved this after the workshop. All participants reached the knowledge criterion after both attending the workshop and reading the manual, whereas only 50% met the criterion after just reading the manual.

A gold standard for training practicing clinicians to participate in clinical trials includes a treatment manual, didactic workshop, and supervision of training cases (Sholomskas et al., 2005). However, in the

***Table 1*. Means and Standard Deviations of Adherence, Skill, and Therapist Factor Ratings**

Variable	Postmanual	Postmanual + Workshop
Adherence		
Total Adherence Score	5.63 (2.29)	6.55 (2.25)
Skill		
Judgment of Skill	3.63 (1.12)	3.82 (.98)
Therapist Factors		
Collaboration	4.18 (1.47)	4.55 (1.13)
Understandable language	4.73 (1.01)	4.91 (.94)
Confidence	3.82 (.87)	4.36 (.81)*

Note. Scores on adherence ratings range from 1 to 15, with higher scores indicating better adherence. Scores on skill ratings range from 1 to 7, with higher scores indicating better skill. Values given are means with standard deviations in parentheses. Sample size for each of the two conditions = 11 (with a total $N = 22$). Degrees of freedom = 1, 10. * $p \leq .05$. ** $p \leq .01$.

community, current practices often include only a brief continuing education workshop and the reading of a manual prior to implementation of a treatment (DeViva, 2006; Herschell et al., 2004). The present results suggest that this may not be the appropriate model for doctoral trainees or individuals naïve to the principles of an EST. Reading a manual and attending a workshop increased knowledge of an EST, but did not necessarily give rise to the skills necessary for implementation. These results suggest that when training therapists naïve to principles of a treatment, the current practice of reading a manual and attending a continuing-education workshop is not sufficient to influence therapist behavior or transport and implement an EST. Further training and supervision (Bazelmans et al., 2004; Herschell et al.; Kendall & Southam-Gerow, 1996) may be necessary for skillful implementation. To reach clinically significant ratings of adherence, it may be that trainee therapists need more training (James, Blackburn, Milne, & Reichfelt, 2001) and practice to adhere to the session goals. Furthermore, reading the manual by itself was not sufficient in increasing therapist knowledge to a clinically significant level, suggesting that individuals who self-train by reading a manual are not necessarily even gaining enough knowledge to implement the treatment in a successful manner.

This study had a number of strengths. One was the use of students training to be practitioners (see Crits-Cristoph et al., 1995; Karekla et al., 2004). Although the findings may be limited to dissemination geared toward trainees (i.e., the training of doctoral students), the implications may be important for professional training of all psychologists. Future research pertaining to dissemination of ESTs ought to examine the professional training of a range of clinicians (i.e., trainees, interns, postdoctoral fellows, and licensed psychologists). Other strengths include the investigation of the dissemination process for a child treatment and the investigation of therapist behavior (i.e., adherence and skill) rated by blind coders. Finally, the training time was "typical" (practitioners have limited time for learning ESTs; Herschell et al., 2004) and matches the typical process followed in the community (i.e., reading a manual and attending a brief continuing education workshop).

Limitations Merit Consideration

One limitation is generalizability, given that participants were second-year graduate students from the same training program who read one manual and attended one workshop. Although the participants were naïve to the EST (a strength), they also may have lacked some general therapeutic skills seen in more advanced practitioners. Second, although an overwhelming majority of those approached agreed to participate, not all were able to schedule time to participate in the structured role-play, which explains the missing outcome measures. Limited therapist resources are one of the challenges of dissemination and implementation research (see Hunter et al., 2005; Miller & Mount, 2001). Another limitation is the lack of a comparison group. Certain measures were only collected post-intervention (i.e., structured role-play); thus, there are no baseline measures for comparison. Additionally, for doctoral trainees, supervision is an important part of training and dissemination and supervision was not included in this study. Additional areas for future research include the possibility of augmenting training with group consultation as that has shown preliminary evidence of being effective (Luoma et al., 2007). Furthermore, this study did not include other important systems variables (i.e., organizational variables, therapist variables, client variables; Beidas & Kendall, in press). Additionally, although the training time matches typical training, it cannot be described as using "best practices" for training given the brief training time (approximately 4 hours). Finally, ecological validity may be a problem given that the behavior rated was a role-play rather than an actual therapist-child interaction in session.

Are we putting the cart before the horse? Perhaps it would be wise to examine how to best disseminate ESTs to both novice and experienced clinicians before striving to transition these treatments into the community. If clinicians are not adequately trained in how to implement these treatments, it could have deleterious effects on the delivery of these treatments. Current dissemination methods are sufficient in transporting knowledge to doctoral trainees, but these strategies may not be enough for adherence and skill.

Future Directions

This study demonstrates that current training practices are ineffective in influencing therapist behavior, particularly in clinicians naïve to the principles of the EST studied. A number of recommendations are made below to consider in future studies on training in ESTs.

1. The identification of best training practices for clinicians naïve to principles of CBT needs investigation (e.g., optimal training time, components of effective training) while also balancing the inherent complexities of training community clinicians (e.g., inadequate resources, barriers to training).

2. Specific therapist competencies (e.g., knowledge of basic principles of CBT, ability to use exposure techniques, ability to use Socratic questioning; see Roth & Pilling, 2007, for an example of therapist competencies in CBT for adult depression and anxiety) in all ESTs should be identified and operationalized, so that training programs are able to effectively target specific behaviors. For example, if the use of cognitive restructuring is essential in the treatment of anxious youth, then therapists should be trained to criterion in this particular skill before implementing the treatment.

3. A "systems perspective" for training offers promise. It is unlikely that training and dissemination will succeed if it does not acknowledge that therapists function within a context and multiple variables (i.e., organizational forces, client factors, therapist factors) interact within this context (Beidas & Kendall, in press)

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Research Forum

Cognitive-Behavioral Treatment for Anger Problems: A Review of the Literature

Magdalena Kulesza and Amy L. Copeland, *Louisiana State University*

The current state of the scientific literature of anger problems is somewhat contradictory. On the one hand, there is a great deal of interest in anger problems among clinicians, criminal justice system, media, and society as a whole (Lench, 2004; Novaco & Taylor, 2006). On the other hand, the research regarding best practices for assessment, diagnosis, treatment, and prevention of anger problems is scarce (Kassinove & Sukhodolsky, 1995; Lench). Evans (1995) pointed out that despite the plethora of interventions being implemented in various settings, little to no information exists regarding their efficacy.

Anger as a Clinical and Scientific Construct

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV-TR*; American Psychiatric Association, 2000), lists Intermittent Explosive Disorder among the Impulse Control Disorders, Not Otherwise Specified (NOS). In order to receive the diagnosis, one has to meet the following categories: "(a) several discrete episodes of failure to resist aggressive impulses that result in serious assaultive acts or destruction of property; (b) the degree of aggressiveness expressed during the episodes is grossly out of proportion to any precipitating psychosocial stressors; (c) the aggressive episodes are not better accounted for by another mental disorder and are not due to the direct physiological effects of a substance or a general medical condition" (*DSM-IV-TR*). Although some would argue that Intermittent Explosive Disorder clearly belongs under the greater rubric of anger problems, researchers in the field of anger problems have not focused on Intermittent Explosive Disorder when discussing anger problems. For this reason, at the present time, there is no distinct, agreed upon, category for anger problems in the *DSM-IV-TR*. Therefore, there is lack of agreement about the definition and symptoms associated with anger problems among clinicians and researchers (DiGiuseppe & Tafrate, 2003; Lench, 2004). In addition, due to the lack of diagnostic criteria, there is no epidemiological data on anger problems (DiGiuseppe & Tafrate).

The present review will adhere to Novaco's (1977) cognitive-behavioral perspective on anger. Specifically, anger is

> an emotional response to provocation that is determined by three modalities: cognitive, somatic-affective, and behavioral. At the cognitive level, anger is a function of appraisals, attributions, expectations, and self-statements that occur in the context of provocation. In the somatic-affective modality, anger is primed and exacerbated by tension, agitation, and ill humor. Behaviorally, both withdrawal and antagonism contribute to anger, the former by leaving the instigation unchanged, the latter by escalating the provocation sequence and by providing cues from which the person infers anger. (p. 600)

Anger has been associated with various negative consequences, such as aggressive behavior (Deffenbacher, Oetting, Lynch, & Morris, 1996), family violence (Jacobson et al., 1994), and substance abuse (Kirby, Lamb, & Iguchi, 1995; McKay, Rutherford, & Alterman, 1995).

Assessment of Anger Problems

The present review of the literature indicates that assessment of anger intensity presently dominates. In fact, Novaco and Taylor (2006) suggested that intensity is a better predictor of anger problems than frequency because intensity leads to engagement in impulsive behaviors. There are currently three anger instruments most widely utilized in the scientific literature:

1. The State-Trait Anger Expression Inventory (STAXI; Spielberg, 1979) is a self-report measure, comprising 20 items with a Likert scale (1 to 4) response format. Ten items represent state expression of anger and are intended to measure situationally based perceptions of injustice. The other 10 items represent trait expression of anger and are designed to measure hypersensitivity and the general tendency to experience and express anger with little or no provocation. Scores that fall between 25th and 75th percentiles are interpreted as within the nonclinical range (Spielberger, 1979). The STAXI has been found to be a reliable and valid, as evidenced by adequate construct validity, measure of anger (Deffenbacher et al., 1996; Greene, Coles, & Johnson, 1994; Kroner & Reddon, 1992).

2. The Novaco Anger Scale (NAS; 1994, 2003) is a self-report inventory designed to measure anger disposition in clinical and nonclinical populations. The NAS consists of two parts: (a) cognitive, behavioral, and physiological aspects of anger; and (b) anger intensity. Novaco (1994) reported internal consistency of .95, test-retest reliability equal to .88 and adequate concurrent validity for NAS.

3. The Anger Expression Scale (AX; Spielberger, 1988) is also a self-report inventory consisting of three factor-analytically derived subscales: Anger Expression–In (i.e., suppression of anger), Anger Expression–Out (i.e., negative outward expression of anger), and Anger Expression–Control (i.e., constructive outward expression of anger). The AX consists of 24 items with a 5-point Likert scale response format (*almost never* to *almost always*). Spielberger (1988) reported internal consistency of .78 for the AX. Divergent and convergent validity was established by Deffenbacher and Stark (1992) and Spielberger (1988).

In summary, these assessment instruments emphasize the dimensional aspects of anger, including situational/state versus traitlike experience of anger, intensity of anger, and the physiological, cognitive, and behavioral symptom manifestations of anger. The distinction between outward and inward expression of anger, as well as constructive versus negative expression of anger, are other variables of obvious importance for treatment.

Treatment for Anger Problems

One of the treatment modalities for anger problems for which there is some empirical support is cognitive behavioral treatment (CBT). In a recent review of meta-analyses, Butler at al. (2006) reported that CBT produced large effect sizes for depression, generalized anxiety disorder, panic disorder with or without agoraphobia, and PTSD in adult populations. As mentioned earlier, research on anger problems lags behind that of anxiety disorders and mood disorders (Novaco & Taylor, 2006). Still, Novaco and Taylor noted that six meta-analyses have been published to date (Beck

& Fernandez, 1998a; Del Veccio & O'Leary, 2004; DiGuiseppe & Tafrate, 2003; Edmondson & Conger, 1996; Sukhodolsky, Kassinove, & Gorman, 2004; Tafrate, 1995).

Review of CBT for Anger Problems

Overview and Aims

In the present review, published outcome studies evaluating CBT for anger problems are discussed in terms of both efficacy and effectiveness. A qualitative review such as the present one is needed to synthesize the existing literature on CBT for anger problems in order to offer suggestions and insights to clinicians and researchers. Our qualitative review is descriptive and narrative in nature. Specifically, we reviewed each study below in terms of its methodological strengths and weaknesses, as well as in terms of its usefulness and validity of inferences based on results provided by the authors. Detailed dissection of the studies in this manner is intended to provide a practical guide for clinicians to utilize in deciding on a specific CBT treatment protocol for anger problems. Whereas meta-analytic reviews have advantages associated with statistical methodology (i.e., effect size), qualitative reviews offer a more comprehensive description of selected publications. All of the reviews of treatments for anger problems to date have been quantitative in nature. The present review focuses exclusively on published reports of CBT for anger problems across adult samples. The aforementioned meta-analyses were predominantly concerned with studies based on college students and included both published and unpublished reports, a variety of interventions, and both experimental and quasi-experimental outcome studies. Therefore, although quantitative reports are methodologically strong, specific conclusions regarding the efficacy and effectiveness of CBT for anger problems may be difficult to reach. In addition, the qualitative approach to literature review is better suited to the present topic, given the complexities of the existing anger treatment literature. These complexities—namely, the lack of diagnostic criteria for anger problems and the consequent poor consensus among researchers regarding assessment methods and outcome measures—lend themselves to the descriptive nature of a qualitative review.

The aims of the present review are to: (a) provide a working definition of anger; (b) describe CBT for anger; (c) review existing CBT literature; (d) provide clinical suggestions for treating anger problems; and (e) suggest future directions for clinical research in this area, in hope that such research will in turn inform evidence-based clinical practice.

Identification and Selection of Studies

To locate relevant studies, we conducted a search of electronic databases, PsycINFO and MEDLINE for the years from 1980 until 2008, using the following key terms alone and in combination: *anger*, *anger problems*, *anger management*, *behavioral treatment*, *cognitive-behavioral treatment*, and *treatment outcome*. In addition, we searched reference lists of identified articles for additional publications. The inclusion criteria were as follows: (a) studies published between 1980 and 2008; (b) adult (all participants over the age of 18) samples; (c) exclusive focus on CBT as the treatment modality. This search strategy yielded 15 studies, 11 of which utilized an experimental design and 4 of which were quasi-experimental in nature. Table 1 provides a summary of sample characteristics, study design, outcome measures, and main findings for each study reviewed in the present article.

Description of CBT for Anger Problems

CBT appears to be the treatment of choice for anger problems (Beck & Fernandez, 1998a). Although there are various forms of CBT, all of them have in common a theoretical approach based on learning and information processing models (Beck & Fernandez, 1998a). The goal of CBT is to address three interrelated components of anger problems: cognitive, behavioral, and physiological.

According to Beck and Fernandez (1998a), the Stress Inoculation Training (SIT; Novaco, 1975) received the most focus in the anger treatment literature. SIT is based on the cognitive-behavioral model according to which anger is triggered by specific experiences (precipitating events) and is maintained by an individual's interpretations of the precipitating events (cognitive processes), physiological arousal, and behaviors that are responses to triggers (behavioral responses; Novaco, 1975). Novaco and Taylor (2006) listed the following key components of SIT: (a) didactic portion about anger, stress, and aggression; (b) self-monitoring of antecedents, anger frequency, and intensity; (c) development of hierarchy of anger-provoking triggers; (d) relaxation techniques; (e) cognitive restructuring and cognitive coping skill; (f) behavioral coping skills; (g) practice of cognitive, behavioral, and relaxation techniques while being exposed to progressively selected anger triggers.

Summary of Research Findings

Table 1 provides a quick reference and brief description of the studies presented below. The studies included below under the subheadings of Experimental Studies and Quasi-Experimental Studies are presented in chronological order, proceeding from the earliest to the most recently conducted studies.

• EXPERIMENTAL STUDIES

Moon and Eisler (1983) compared the effectiveness in anger reduction of the following three active treatments: cognitive stress-inoculation (CSI), problem-solving (PS), and social-skills training (SST), with a "minimal attention" control condition. All interventions were in a group format. Forty male college students were randomly assigned to the four conditions. Participants were assessed pre- and immediately post-treatment on physiological reactivity (blood pressure, pulse) and self-report measures of anger. Compared to participants in the control condition, those in all active treatments reported a significant decrease in anger-provoking cognitions. However, unlike participants in the SST and PS conditions, participants in the CSI condition did not report a significant increase in utilization of social-skills-related behaviors. The investigators speculated that while CSI led to more passive anger-related coping skills, both SST and PS resulted in a more active approach (Moon & Eisler). Although the external validity of this study is limited by a small and very specific sample (male college students), the findings provide some support that interventions comprising cognitive and behavioral techniques are more beneficial to clients than cognitive intervention alone. Future research is needed in which similar protocols are applied to individuals with clinically significant anger problems.

Stermac (1986) investigated whether a short-term CBT intervention would be more effective than a no-treatment control condition in reducing anger among forensic patients. Forty participants were randomly assigned to the two conditions and completed self-report measures of anger-related symptoms pre- and posttreatment. The short-term CBT intervention was more effective in reducing self-reported anger among participants as compared to the control condition. Although this study is also limited by a small sample size, the results

Table 1. Summary of Presented Experimental and Quasi-Experimental Studies

Study	Sample Characteristics	Design	Outcome Measures	Summary of Main Findings
Moon & Eisler (1983)	*N* = 40 College	E, G	SR, BA, PH	Compared to controls, participants in active treatment reported significant decrease in anger-related cognitions.
Stermac (1986)	*N* = 40 Forensic	E, G	SR	Significant reduction in anger at posttreatment in the active group as compared to control condition.
Whiteman et al. (1987)	*N* = 55 Abusive parents	E, G	SR	Participants in the combined treatment condition reported most improvement from baseline to posttreatment.
Rokach (1987)	*N* = 95 Inmates	QE, G	SR, BA	Compared to control, active treatment resulted in less anger symptoms posttreatment.
Deffenbacher et al. (1987)	*N* = 50 College	E, I	SR	Significant differences between active and control conditions on outcome measures at posttreatment and FU.
Deffenbacher et al. (1988)	*N* = 45 College	E, I	SR	Significant reduction of anger from baseline to posttreatmnt in the active group as compared to controls.
Deffenbacher et al. (1990a)	*N* = 29 College	E, I	SR	Significant differences between treatment conditions and control at posttreatment on anger-related symptoms.
Deffenbacher et al. (1990b)	*N* = 48 College	E, I	SR	Significant reduction of anger from pre- to posttreatment in active condition versus control. Gains maintained at F/U.
Deffenbacher & Stark (1992)	*N* = 55 College	E, I	SR	Significant reduction in anger from pre- to posttreatment as compared to control. Gains maintained at F/U.
Deffenbacher et al. (1994)	*N* = 180 College	E, G	SR	Significant reduction in anger among active group as compared to controls.
Chemtob et al. (1997)	*N* = 15 Army veterans	E, I	SR, PH	CBT resulted in less SR anger than TAU at posttreatment and F/U. No significant differences on PH measures of anger.
Beck & Fernandez (1998b)	*N* = 27 College	E, I	BA	Significant reduction from pre- to posttreatment in anger frequency and duration among participants in three treatment conditions.
Reily & Shopshire (2000)	*N* = 91 Cocaine abuser	QE, G	SR	Significant reduction in anger from pre- to posttreatment. Gains maintained at F/U.
Siddle et al. (2003)	*N* = 119 Clinical	QE, G	SR	Majority of participants not interested in treatment. Participants exposed to treatment reported significant reduction in anger from pre- to posttreatment.
Smith & Beckner (1993)	*N* = 18 Inmates	QE, G	SR	Significant reduction in anger from pre- to postintervention

Note. E = experimental, I = individual, BA = behavioral assessment, SR = self-report, PH = physiological assessment, G = group, QE = quasi-experimental, Sig= significant, F/U=follow-up.

clearly indicate that a CBT intervention is preferable to no treatment at all. The study's strengths include random assignment and a no-treatment control. The use of a forensic sample seemingly increases the generalizability to individuals with clinically significant anger problems over studies with college students. However, clear diagnostic comparison of the samples would be necessary to draw firm conclusions.

Whiteman, Fanshel, and Grundy (1987) investigated the effectiveness of various forms of cognitive-behavioral interventions for anger problems among a sample of parents at risk for child abuse. Fifty-five participants were randomly assigned to the following conditions: cognitive restructuring (CR), relaxation training (CT), problem-solving skills training (PSST), combination of CR, CT, and PSST (CR + CT + PSST), and a no-treatment control. The researchers assessed study participants at baseline and postintervention on self-reported anger-related symptoms. The results indicated that although all active treatment conditions resulted in greater anger reduction posttreatment compared to the control condition, participants in the combined treatment condition (i.e., CR + CT + PSST) achieved significantly greater reduction in anger than those in either CR, CT, or PSST alone. The results of this investigation, along with those of Moon and Eisler (1983), suggest that the inclusion of both cognitive and behavioral techniques comprise the most beneficial interventions.

Deffenbacher, Story, Stark, Hogg, and Brandon (1987) compared the effectiveness of social skills (SS) and cognitive-relaxation (CR) interventions for anger problems. They randomly assigned 50 undergraduate college students to the SS, CR, or a no-treatment control condition. Anger-related symptoms were assessed pretreatment, immediately posttreatment, and at 5 weeks posttreatment. The SS and CR treatments were both effective in significantly reducing anger symptoms as compared to the no-treatment control condition, but the active treatments did not significantly differ from each other. The strengths of this design are random assignment, inclusion of a no-treatment control condition, and an attempt at dismantling components of effective interventions by forming the SS and CR conditions. It would be interesting to know whether both active treatments similarly improved both cognitive and behavioral skills for coping with anger, and if both treatments similarly reduced cognitive, affective, and behavioral symptoms of anger among participants. Small sample size and inclusion of a college sample limit the generalizability of this study to clinical populations with whom clinicians would most likely be treating.

Deffenbacher, Story, Brandon, Hogg, and Hazaleus (1988) compared the effectiveness of cognitive (CT) and cognitive relaxation (CR) treatments in anger reduction. They assigned 45 undergraduate students to three experimental conditions: CT, CR, and a no-treatment control condition. Participants were asked to complete self-report assessments of anger symptoms during the following periods: baseline, posttreatment, 5 weeks posttreatment, and 15 months posttreatment. Results revealed that both CT and CR were equally effective in anger reduction compared to the no-treatment control condition. These treatment gains were maintained at both follow-up periods. While the random assignment and inclusion of the no-treatment control condition contribute to the strength of the design, future studies would benefit from a larger and more diverse sample. An obvious, notable strength of this study is the inclusion of a fairly extensive follow-up period. In doing so, clinical researchers will be able to address issues regarding relapse and duration of treatment effects in mitigating various anger symptoms and maintaining cognitive and behavioral anger-management skills.

Deffenbacher, McNamara, Stark, and Sabadell (1990a) investigated whether combining relaxation, cognitive, and behavioral skills training in one group format would result in greater reduction of anger-related symptoms when compared to a no-treatment control group. The researchers randomly assigned 29 college students to either combined treatment condition or to a no-treatment control. Participants in the treatment group learned how to cope with emotional arousal, cognitive distortions, and interpersonal skills deficits using cognitive, behavioral, and relaxation strategies. Posttreatment results indicated that participants in the combined treatment group reported significant reductions from baseline on the following anger-related symptoms: tendency to express anger outwardly and negatively, frequency and intensity of anger, and anger-related physiological arousal. Significant strengths of this study are random assignment of participants and the inclusion of a control condition. The sample comprised college students and a relatively small number of participants, both aspects that may limit the generalizability of the findings. It is also not terribly surprising that a protocol containing multiple components would fare better than a no-treatment control group. Future studies that dismantle these components would be highly useful in informing treatment implementation.

Deffenbacher, McNamara, Stark, and Sabadell (1990b) were interested in comparing the effectiveness of two theoretically distinct approaches: CBT (group) and process-oriented group counseling (PGC) in reduction of anger-related symptoms. They randomly assigned 48 college students to three experimental conditions: CBT, PGC, and no-treatment control. They assessed participants on a variety anger-related symptoms pre, postintervention, 5-week follow-up, and 15-month follow-up. The results indicated that participants in both active treatment conditions reported significant and equal reductions in anger postintervention. In addition, treatment gains were maintained at both follow-up assessments, and both treatment groups did significantly better in anger reduction as compared to the control condition. Obvious strengths of this study include random assignment, follow-up assessments, and a no-treatment control group. Notably, by their inclusion of theoretically distinct treatment protocols, the investigators made a significant contribution to the anger treatment literature. That is, these findings indicate there are alternative routes through which clinicians may generate desired behavior change (i.e., reduction of anger). It would be interesting to determine whether different modalities/dimensions of anger problems were better targeted via one theoretically based protocol versus another. Unfortunately, these findings based on a nonclinical sample may have limited application to populations with clinically significant anger problems.

Deffenbacher and Stark (1992) investigated whether the effectiveness of anger treatment would be greater if cognitive and relaxation coping skills were combined (CRCS) in a group protocol, as compared to a group protocol of relaxation coping skills alone (RCS), and to a no-treatment control group. Fifty-five college students were randomly assigned to the three groups and completed self-report measures of anger-related symptoms at baseline, immediately after treatment, 4 weeks postintervention, and 1 year postintervention (Deffenbacher & Stark). Compared to participants in the no-treatment control, participants in both the CRCS and RCS conditions reported significant and comparable reduction in anger postintervention, and treatment gains were

maintained at both follow-up periods. Participants in the CRCS condition attended more sessions and rated treatment as more helpful than those in the RCS condition. Still, Deffenbacher and Stark noted that those process differences did not result in outcome differences between the two treatment conditions. These investigators once again conducted a strong study in terms of random assignment, inclusion of a no-treatment control group, and an extended follow-up time period. In addition, the inclusion of process measures yielded highly interesting information. The ability to make strong clinically related inferences would be greatly enhanced if a clinical population was studied and the sample size was larger. However, the findings regarding process differences should be incorporated into future study designs, as they may be informative regarding mechanism of change in CBT interventions and will also inform development of economical and efficient delivery of treatment to clinical populations.

Deffenbacher, Thwaites, Wallace, and Oetting (1994) compared the efficacy, relative to no-treatment control, of the following treatments with respect to anger reduction: inductive social skills training (ISST), skill assembly social skills training (SASST), and cognitive relaxation coping skills (CRCS). All treatments were in a group format. Contrary to CRCS, both ISST and SASST focused on developing interpersonal coping skills designed to help with anger. However, unlike in the SASST condition, participants in the ISST condition were asked to list specific anger-provoking situations problematic to them and to generate their own coping strategies to each respective situation. Researchers randomly assigned 180 undergraduate college students to the four treatment conditions: CRCS, ISST, SASST, and a no-treatment control group. Participants were assessed for anger-related symptoms at baseline, immediately posttreatment, and at 4 weeks posttreatment. Results indicated that compared to control group, all active treatments resulted in a significant reduction of anger at follow-up assessment. This study's notable strengths are the larger sample size as compared to other similar studies reviewed here, inclusion of a no-treatment control condition, and random assignment. It is also of note the manner in which the investigators partitioned components of effective interventions. It would be highly useful to know whether the different active treatments influenced symptom expression (e.g., cognitive, behavioral/physiological, affective) of anger differentially. Future studies of this type will hopefully allow these types of comparisons.

Chemtob, Novaco, Hamada, and Gross (1997) were interested in comparing the effectiveness of CBT vs. treatment as usual (TAU) for anger problems. They randomly assigned 15 Vietnam War veterans suffering from combat-related PTSD to either the CBT or to TAU condition. Participants were asked to complete self-report measures of anxiety, depression, PTSD symptoms, and anger control, reduction, and disposition at baseline, immediately postintervention, and 18 months postintervention. Researchers reported that, while controlling for baseline differences, participants in the CBT condition reported significantly greater anger reduction than did those in the TAU condition. In addition, these gains were maintained at the 18-month follow-up assessment. There were no significant differences between groups on anger disposition and physiological symptoms of anger. Here, process measures such as therapist ratings and treatment protocol integrity would be critical in discerning the results, which are largely inconsistent with the other studies we've reviewed. Of note, of course, is that this study is the first we've reviewed that included a clinical sample, in that participants were diagnosed with combat-related PTSD and were observed to have problems with anger. While it was advantageous that the interventions were studied on a clinical population, this may have been an extremely complex diagnostic group (possible additional comorbid psychological and medical conditions) from which generalizations are difficult to make.

Beck and Fernandez (1998b) aimed to investigate how different self-regulation techniques would affect the frequency, duration, and intensity of anger. They randomly assigned 27 undergraduate students (predominantly female) to the following three treatment conditions: cognitive self-regulation (CSR), behavioral self-regulation (BSR), and a combination of cognitive and behavioral self-regulation (C + BSR). The treatment protocols were 3 weeks in duration. During the first week, participants learned how to self-monitor the frequency, intensity, and duration of anger, and they were instructed to do so throughout the course of the study. During the second week, participants received instructions about their respective self-regulation technique based on the random assignment. During the third week, participants were asked to continue to monitor the anger episodes without engaging in self-regulation techniques. The researchers observed that for all conditions, there was a significant reduction in anger frequency and duration (but not anger intensity) from pre- to postintervention. Although this study has a great deal to offer in terms of protocol variation and therefore potential comparisons, the sample size is too small (no greater than $n = 9$ per condition) to draw meaningful and firm conclusions. These data provide promising pilot data for what will hopefully become a larger clinical trial, which should include an extensive follow-up period and multiple assessment points and methods.

- QUASI-EXPERIMENTAL STUDIES

Rokach (1987) compared anger and aggression control training (AGCT) with a no-treatment control. The AGCT was administered in a group format and was based on the cognitive-behavioral conceptualization of anger problems. Treatment addressed behavioral, physiological, and cognitive symptoms of anger. Inmates in a correctional facility were offered anger-reduction intervention, and 51 expressed interest while 44 declined to participate in group sessions and served as a control condition. Participants in both treatment and control conditions were assessed at baseline and immediately posttreatment on self-reports and objective observer ratings of their ability to control anger and aggression. Results suggest that AGCT resulted in greater self-report and objective observer reduction in anger compared to no-treatment control. This study is strong in its inclusion of objective behavioral observation in addition to self-report data. The self-selection of the sample is perhaps the greatest limitation in interpreting the results of this study, in addition to the lack of rigorous control characteristic of experimental versus quasi-experimental designs. However, it is also highly useful in that a sample with clinically significant anger difficulties was utilized. The fact that approximately half of the eligible participants declined to participate suggests that anger interventions are not attractive to individuals who could benefit most from them. This topic warrants further investigation in future studies with clinical populations.

Smith and Beckner (1993) investigated the effectiveness of an anger management workshop in reducing anger among medium-security inmates. The workshop was administered in a group format and was based on cognitive-behavioral conceptualization of anger problems. Eighteen in-

mates participated in treatment and were asked to complete self-reported measures of anger-related symptoms pre- and postintervention. The results suggested a significant reduction of anger from pre to postintervention. Due to various limitations, most notably lack of a comparison or control group, it is difficult to draw firm conclusions from this study. Again, however, the inclusion of a clinical population is a great advantage to this study, which can inform future, methodologically sound investigations.

Reilly and Shopshire (2000) noted that cocaine abusers who have greater difficulty with anger management may have more problems with achieving abstinence. Therefore, they investigated whether cognitive-behavioral anger-management group treatment would have an effect on cocaine use. Ninety-one participants diagnosed with cocaine dependence participated in the anger-management group treatment. Participants reported a significant reduction in anger from baseline to posttreatment, and treatment gains were maintained at 3-month follow-up. In addition, researchers reported that 55% of participants completed treatment, and 36% of participants achieved long-term abstinence at a 3-month follow-up. Outcome assessments were based on participants' self-reports regarding their drug use and anger-related symptoms—presenting limitations regarding internal validity, although inclusion of a clinical sample greatly enhances external validity. Of course, this is typically the tradeoff between experimental and quasi-experimental designs. Due to small sample size, lack of random assignment, and lack of objective assessment of drug use, the results of this study should be considered as preliminary.

Siddle, Jones, and Awenat (2003) assessed the effectiveness of CBT group for anger problems in a within-subjects design. One hundred-nineteen patients referred for anger problems were assessed at baseline and posttreatment on self-reported anger-related symptoms. Researchers reported that only 9% of patients who were referred completed treatment, and 28% of those referred were exposed to at least one session of CBT while the majority (56%) chose not to participate in treatment at all. Patients who were at least exposed to treatment reported a significant reduction in anger at posttreatment compared to baseline. Investigators noted that while CBT resulted in promising reductions in anger, the majority of individuals with anger problems were not interested in treatment. This finding is similar to the recruitment difficulties reported in the Rokach (1987) study, and presents a potential challenge to clinicians and researchers to address treatment interest/motivation among individuals who are in need of assistance for clinically significant anger problems.

Conclusions

The preliminary treatment outcome literature on CBT for anger problems is highly encouraging. Existing studies suggest that CBT is an effective and efficacious treatment for anger problems (Beck & Fernandez, 1998a; Novaco & Taylor, 2006). The superiority of CBT interventions over no-treatment control groups is well-established in the empirical literature reviewed here. Clinicians and clinical supervisors alike should utilize existing CBT interventions in treating individuals with anger problems. In particular, it is recommended that clinicians and clinical supervisors select CBT intervention protocols that include explicit cognitive restructuring components combined with clear behavioral skills training components, as these combined protocols have accumulated the most empirical support.

Despite the steady progression apparent in the CBT anger treatment literature we review here, many aspects of this topic remain unresolved, understudied, or, to date, unexamined. We suggest that future studies address the following:

1. A distinct diagnostic category for anger has yet to be established and agreed upon by clinical researchers. This in turn precludes a consensus on operational definitions of anger symptomatology (DiGiuseppe & Tafrate, 2003; Lench, 2004; Novaco & Taylor, 2006). Self-report inventories of anger intensity such as the STAXI and the NAS have been the most widely used method of assessing anger symptoms in research studies. Although several studies have included physiological correlates of anger, such as heart rate (e.g., Chemtob et al., 1997; Moon & Eisler, 1983), more common inclusion of physiological and behavioral correlates of self-reported anger symptoms in research studies would greatly inform diagnostic classification.

2. Due to the lack of standardized diagnostic criteria, there is little agreement on outcome measures that reliably and validly assess anger as a psychological construct (DiGiuseppe & Tafrate, 2003, Lench, 2004). Again, we recommend greater trait and methodology variance in clinical research studies on anger problems.

3. Although anger problems affect a variety of individuals, outcome research studies have predominantly relied on college student populations as treatment participants. While limiting sample heterogeneity and diagnostic complexity may increase the internal validity of studies, this practice is an obvious limitation in attempting to generalize results to clinical populations (Deffenbacher, Oetting, & DiGiuseppe, 2002; DiGiuseppe & Tafrate, 2003; Novaco & Taylor, 2006). For example, anger management interventions have been widely utilized in prison settings without clear scientific support for efficacy with this population (DiGiuseppe & Tafrate, 2003; Evans, 1995; Novaco & Taylor). However, as previously stated, the literature certainly suggests that CBT intervention would be more beneficial than no treatment at all.

4. More studies are needed in which manuals and integrity checks for therapists are utilized (Deffenbacher et al., 2002; DiGiuseppe & Tafrate, 2003). Treatment effectiveness or process measures, such as patient satisfaction with treatment and therapist, would also be very useful for application as well as potentially resolving some discrepancies in the literature.

5. Future studies should incorporate extended follow-up periods in their design in order to draw conclusions about the long-term effects of CBT anger interventions (Beck & Fernandez, 1998a; Deffenbacher et al., 2002; DiGiuseppe & Tafrate). It is presently difficult to determine whether there exists a dose-response relationship with CBT interventions and anger symptom improvement and if and when relapse prevention sessions may be warranted.

6. Finally, dismantling studies are needed in which the active ingredients of treatment are investigated (Beck & Fernandez, 1998b; Deffenbacher et al., 2002) and the mechanism(s) of change are studied in greater detail.

There remains an unfortunate gap between current practice and scientific advancement in the treatment of anger problems. Manualized CBT interventions have been advocated and utilized in the scientific community but are rarely employed in clinical settings. Indeed, continued investigation of the efficacy of manualized CBT for anger problems is necessary from the scientific community. The subsequent, prompt dissemination of this information to clinicians and clinical training programs is also needed in order to establish best practice guidelines for treating anger problems.

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At ABCT

Treasurer's Update

George Ronan, *Secretary-Treasurer*

The recent voting for the next Secretary-Treasurer of the Association served to remind me that almost half of my 3-year term as treasurer for ABCT has passed. Seems like a good time to provide an update to the general membership. One task assigned to the Treasurer is to chair a Finance Committee that is responsible for evaluating the fiscal stability of the Association. The current Finance Committee consists of two members with extensive knowledge of the day-to-day functioning of the Association (Judy Favell and Mike Petronko) and the President-Elect (Frank Andrasik). Finance Committee members have donated hundreds of hours to the Association; they take their fiduciary responsibilities seriously. My hope is that you will acknowledge their hard work as you interact with them in New York City this November.

Although Main Street has witnessed a significant economic downturn since I began as Treasurer in January 2008, I want to reassure everyone that the Association continues to be financially stable. The operating fund for the last fiscal year resulted in a positive expense-to-income ratio (this means that we're making money and keeping some of it), and we are closely monitoring budgeted income and expenses for the current fiscal year. By all accounts, the day-to-day operating of the Association remains financially responsible and sound.

The economic downturn on Wall Street has had a negative impact on our long-term investments. The Finance Committee has been busy reviewing thoughtful, conservative strategies for managing our operating, short-term, and long-term funds. Five financial firms responded to an RFP for a financial adviser and subsequently made presentations to the Finance Committee. I am happy to report that the ABCT Board recently approved our recommendation to have the Robert W. Baird Company begin to manage our long-term investments. Everyone involved in the decision-making supported the move in this direction and I expect we are on the road to ensuring the growth of our endowment funds.

During the Annual Meeting of Members in Orlando, I mentioned that CBT is now a commonly used acronym and that ABCT has played a major role in that development. I pledged the Finance Committee would work with other ABCT committees to publicize avenues for both members and people who have benefited from CBT to donate or endow funds to the Association. I am pleased to announce that our home page (www.abct.org) now has a "DONATE" button. I am not going to tell you what happens when the button is pushed. I do encourage you to push the button and think about how you might want to help advance the financial future of our professional home.

ABCT's President, Robert L. Leahy, Ph.D., invites submissions for the 31st Annual President's New Researcher Award. The winner will receive a certificate and a cash prize of $500. Submissions will be accepted on any topic relevant to behavior therapy, but submissions consistent with the conference theme emphasizing universal processes across cognitive behavioral models are particularly encouraged.

Call ***for*** **PAPERS**

President's New Researcher

Eligible papers must (a) be authored by an individual with five years or less post-training experience (e.g., post-Ph.D. or postresidency); and (b) have been published in the last two years or currently be in press. Submissions can consist of one's own or any eligible candidate's paper. Papers will be judged by a review committee consisting of Robert Leahy, Ph.D.; Anne Marie Albano, Ph.D., ABCT's Immediate Past-President; and Frank Andrasik, the ABCT President-Elect. Submissions must be received by August 13, 2009, and must include four copies of both the paper and the author's vita. Send submissions to ABCT President's New Researcher Award, 305 Seventh Ave., 16th floor, New York, NY 10001.

ABCT

43rd Annual Convention

Nov. 19–22, 2009
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ABCT's Academic Training Committee is seeking *sample course syllabi* for posting on ABCT's newly redesigned website.

We hope that such materials will continue to serve as a useful resource for members working on course design/enhancement. We welcome materials from courses at all levels (graduate and undergraduate) that incorporate ABCT values. These include, but are not limited to, courses on assessment and intervention, psychopathology, and research design. Please send materials to Jennifer Block Lerner, Ph.D. (lerner@lasalle.edu; 215-951-5179). If you have suggestions for other categories of training-related information that would be valuable to have on the website, please direct these to Kristi Salters-Pednault, Ph.D., at ksalters@bu.edu.

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Self-Help Seal *of* Merit

Introducing

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As part of it's commitment to educating the public about scientific approaches to the treatment of psychological problems, ABCT recognizes published SELF-HELP BOOKS that are consistent with CBT principles and that incorporate scientifically tested strategies for overcoming these difficulties.

2009 ABCT Self-Help Books of Merit

Shyness and Social Anxiety Workbook
Antony & Swinson, 2008 | New Harbinger

Taking Charge of ADHD
Barkley, 2000 | Guilford

The LEARN Program for Weight Management
Brownell, 2004 | American Health Publishing (10th ed.)

The Feeling Good Handbook
Burns, 1999 | Plume

Overcoming Binge Eating
Fairburn, 1995 | Guilford

Stop Obsessing
Foa & Wilson, 2001 | Bantam Books

Parenting the Strong-Willed Child
Forehand & Long, 1996 | Contemporary Books

Mind Over Mood
Greenberger & Padesky, 1995 | Guilford

No More Sleepless Nights
Hauri, 1996 | Wiley

The OCD Workbook
Hyman & Pedrick, 2005 | New Harbinger

An End to Panic
Zeucher-White, 1998 | New Harbinger

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Book titles will be posted on ABCT's website under our link for "The Public" and will also be linked to our Find-a-Therapist directory. An article explaining the committee's process and how to submit books will follow in a future issue of tBT. *In the meantime, direct questions or comments to Jonathan Abramowitz: jabramowitz@unc.edu*

Chair: Jonathan Abramowitz • *Committee*: Barbara Bruce, Donald Baucom, Gerald Tarlow, Brett Deacon, Stephen Whiteside, Richard Seime, Trent Codd, James Claiborn, Simon Rego, Joe Himle, Cindy Harbeck-Weber, Ilyse Dobrow Dimarco

A New Database

Mary Jane Eimer, CAE, *ABCT Executive Director*
Lisa Yarde, *ABCT Membership Services Manager*

When you go online this August to renew your membership and register for the annual convention, you should have an easier time of it. We will have switched over to a new database system. This new database should be much more intuitive for the user and will allow staff greater flexibility in expanding fields and putting together mini-databases through our website.

This will be the perfect time for you to look at your listing in the on-line Membership Directory. And if you are licensed and see clients, check your listing on our clinical directory, Find-a-Therapist. If you paid an additional $50, your practice particulars are included in the clinical listing. Was your email address, mailing address, county, and biographical information migrated properly? We took great care in proofing the data, but, every once in a while, mistakes occur. Please take a moment to make sure we got it right.

Here's how the new database will benefit you online:

Membership

- *Keep your ABCT Member ID*: No need to memorize a new ABCT ID number. We've migrated your ID number to the new database.
- *View all your ABCT transactions and history online*: You can access all your ABCT transaction history online, including annual dues renewals, orders processed and fulfilled, and annual convention registration. Track your membership history, including join date, and your committee and awards participation.
- *Enhanced Membership and Clinical Directory listings*: When you provide your contact information to ABCT, you can specify whether or not your addresses, contact numbers, email addresses, and website should be viewable to other members and/or the public. You can also specify the primary address and telephone numbers where ABCT staff can reach you, and choose your communication preferences, whether by email, phone, or only mail.
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Annual Convention

Enjoy a simplified online registration for the ABCT annual convention. For several years, you've been able to register online and submit electronic process payments in real-time, but the new database offers further enhancements.

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Purchase all ABCT publications online, including items available for download.

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Online Transactions

- *Better online shopping experience*: The new database simplifies your online shopping experience. Renew your membership, register for the annual convention, and purchase publications, all in one transaction. The online shopping cart feature also lets you sort and view specific items you'd like to purchase by category or pricing. Just before you complete your purchase, review your transaction summary and receive confirmation of your online payment at your primary email address, as well as any secondary email address you designate.

These are just some of the highlights of the new database! Our staff is working to bring you more enhancements to meet your needs. Should you have questions, please do not hesitate to contact us.

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Membership Directory

The **Membership Directory** is an online directory of each and every ABCT member. Search by name, specialty, city, institution, populations served. Check your own listing today to make sure it's current and complete. All you need is your ABCT log-in and password. Our other online database, **Find-a-Therapist**, is for licensed full and new professional members who take referrals and is open to the CBT-seeking public. This is our most frequently accessed page with close to **7,000 hits** per month! $50 more gets your practice philosophy included plus a link to your website!

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